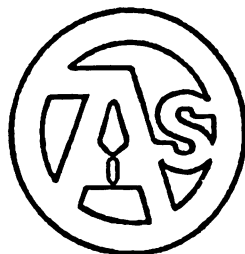


*The Ontario Archaeological Society Inc.*  
ARCHAEOLOGICAL STEWARDSHIP PROJECT



# *Field Manual*

FOR AVOCATIONAL ARCHAEOLOGISTS IN ONTARIO

by Nick Adams

Historical Notes by Ian Kenyon and Dena Doroszenko



March, 1995 - Second Edition

This publication was made possible by a grant from  
THE ONTARIO HERITAGE FOUNDATION

# ***Field Manual***

**For avocational archaeologists in Ontario**

First Edition - March, 1994

Second Edition - March, 1995

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The Ontario Archaeological Society

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its appreciation for funding of this manual by  
The Ontario Heritage Foundation

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## Preface to the First Edition

The idea and need for this volume was first suggested by Mr. Ian Kenyon of **The Ontario Heritage Foundation** in response to requests from avocational archaeologists (especially Mr. Art Howey) that a new programme be initiated to follow on from the ACO programme that had been operated so successfully by the then **Ministry of Culture and Communications**. Following discussions between Ian Kenyon, Art Howey, Mike Kirby and myself during the winter and spring of 1992, we all agreed that in order for any new programme to begin a good quality field manual was necessary for use by avocational archaeologists. We believed that a field manual would set a high and consistent standard of reporting, recording and registering of sites by avocationalists throughout the province. We also believed it would be of interest and use to professional archaeologists as well as to students of archaeology.

The next step was to determine which organization was best suited to sponsor and supervise the writing and production of the manual: the **Ontario Archaeological Society** seemed the obvious choice to the four of us. It was at that point that a commitment to creating and producing a field manual was made. A committee, which I chaired, was established to oversee its development. Now, two years later, we have the final product. It is, I believe, not only a good field manual about the "how to" and "how not to" for avocationalists to conduct their fieldwork but it provides also a splendid, albeit brief, introduction to artifact identification and a general outline of the prehistory and history of Ontario. Indeed, I believe that this field manual is of a standard high enough that I encourage not only avocational archaeologists to use it but also any other interested and aspiring parties to consult it. First year archaeology students may find it an indispensable means of familiarizing themselves with archaeology in Ontario and the history of the province. Let us hope that now the field manual is available, the next step will be the initiation of an Archaeological Stewardship Project for avocational archaeologists in Ontario.

Bruce Welsh  
Field Manual Committee Chairman  
March, 1994.

### Archaeological Stewardship Project Field Manual Committee

Mr. Chris Andersen	Ms Bernice Field
Ms Luisa Beram	Mr. Art Howey
Professor Gary Crawford	Mr. Ian Kenyon
Ms Dena Doroszenko	Mr. Michael Kirby
Dr. Bruce Welsh (Chairman)	

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## Acknowledgements

In order for any volume to be written and produced the work and assistance of many people and organizations is required.

First and foremost I must express my gratitude to **The Ontario Heritage Foundation**. It was members of the **OHF** who first encouraged the **OAS** to apply for a grant for this project. Our application was successful and the **OHF** graciously provided us with a grant of \$10,200 to cover the costs of writing and producing this volume. I thank Mrs. Dorothy Duncan and the Board of Directors of **The Ontario Heritage Foundation** for providing this sum and for having the faith in us to complete the volume. Without this financial assistance the **OAS** could not have embarked on this task.

Secondly, I must thank Nick Adams for agreeing to write the manual. Given his familiarity with archaeology in both northern and southern Ontario, Nick was unquestionably well suited and well qualified to write this field manual. I have also discovered that he is surely one of the most affable persons around. Despite having to put up with the many requests, demands, complaints and criticisms from the committee, and especially from me, Nick remained gracious and uncomplaining. Most importantly, he provided us with this finely written manual with plenty of humour. Many thanks, Nick. And don't ever lose your good humour, it's infectious!

Thirdly, I must thank all members of the committee for their assistance in the production of this manual. The different committee members were especially expert in specific aspects of the manual and each of them gave much time, thought and energy to ensure its completion, from the initial concept and outline through to the final draft. I especially thank Ian Kenyon and Dena Doroszenko for writing the section on historic artifacts and for providing many of the illustrations, and to Mike Kirby for editing, compiling and organizing the volume once we had the final draft. I also thank Ms Lesley Lewis, then the Executive Director of the **OHF** and Mr. Morris Zbar, then the Director of Field Services at the **Ministry of Culture, Tourism and Recreation** for permitting most of these individuals to sit on an **OAS** committee. Believe me, without their assistance, this manual could not have been completed. Thanks, folks.

Fourthly, on behalf of the **OAS**, I give special thanks to Mr. Art Howey. Ever since the Avocational Workshop in January, 1991, Art is the person primarily responsible for persuading all concerned that a successor to **ACOP** was necessary and that the **OAS** was the best suited organization to sponsor it. It is because of the high regard that so many of us have for Art that we agreed to become involved in the production of the manual in the first place. In thanking you, Art, the thanks come from a lot of people. It is my hope that now that the first step has been taken - a completed field manual - we shall soon see your dream develop into the beginning of the archaeological stewardship programme.

Fifthly, I must thank Monicke Thibeault for providing the line drawing for the title page at very short notice and at the last moment. It is a first rate drawing and I think I know the person on which the figure is based! I should also like to thank Nick, Ian and Dena for their illustrations and to note and acknowledge that all of the remaining illustrations have been taken from previous **OAS** publications, especially *KEWA* and Ellis & Ferris (eds.) *The Archaeology of Southern Ontario to A.D. 1650*.

Finally, I must thank the **OAS** Board of Directors for their patience and constant support in this endeavour. Their belief that the committee would complete the task never wavered and I thank them for the faith they had in me to oversee its completion. On behalf of the committee and author, I present this volume to you.

B.W.

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## INTRODUCTION

### **The Search for Meaning**

Virtually every person I know who is involved in archaeology can remember a special moment; an instant when the thrill of finding that arrowhead in the cornfield, that pipe stem in the flower bed or that biface on the lakeshore blossomed from the joy of discovering the artifact, to a fascination with the people, the culture and the age from which it came. Each of those artifacts was made with human hands; hands the same as yours and mine, hands which were guided by a mind full of hopes, anxieties, fears and joys.

The people who made those artifacts lived lives vastly different from our own, yet we are more connected by our shared humanity than separated by cultural and temporal distances. Anyone who has tried to replicate a chert point, weighed a siltstone adze in their hand, or closely examined the individual brushstrokes on hand-painted hollow ware, will have felt that sense of affinity with the past. Suddenly it isn't enough to put the object in the shoebox with the others or fix it to the display board on the wall. You want to know more. You want your discoveries to mean something, to be valued. You want to contribute knowledge.

Human life is a transitory thing. Most of us choose to live as if we were immortal, but we will join the ranks of those who preceded us soon enough. Through archaeology we can dispense a little immortality. By examining and caring about the physical evidence of the past, we can, in a small way, bring some fragment of those past lives into the present, and rekindle something of those who were its creators. Through the registration and publication of our insights and discoveries we can ensure that we too leave a legacy to be enjoyed and examined by future generations; a legacy which enriches our own lives, and the lives of those yet to come.

### **Problems in the Present**

Sharing knowledge of archaeological discoveries and archaeological sites is an important way to contribute to broadening our collective knowledge of the long and fascinating story of the human occupation of Ontario. It provides the meaning, the value and the context within which to view and evaluate our personal discoveries. After decades of investigations by both avocational and professional archaeologists, we are beginning to piece together a picture of the many ways in which indigenous peoples and European settlers have used this land we now call Ontario. The picture is far from complete, and as each year goes by we are learning that it is one of great complexity and diversity.

Unfortunately pieces of the picture keep getting lost. As we develop and manipulate the landscape to serve the needs of our culture we are obliterating traces left by its former inhabitants. Our need for housing space, new highways and commercial and industrial development is causing the physical evidence left by those who preceded us to be destroyed at an unprecedented rate.

Various pieces of legislation; the Ontario Heritage Act, the Planning Act and the Environmental Assessment Act, provide for some measure of protection or consideration for archaeological sites prior to development. Unfortunately their application is inconsistent from region to region and tends only to apply to the largest projects and most well known sites. In the meantime, numerous archaeological sites are being destroyed, simply because no one was either aware of their existence, or if they were, did not have the tools and information available which would allow them to act.

This manual is designed to provide these tools.

### **Avocational Archaeologists in Ontario**

Until very recently, a large percentage of the fieldwork, analysis and publication which related to Ontario archaeology was done by avocational archaeologists. For the most part it was excellent work, some of which still forms the basis of our current understanding of whole sections of the past. Over the last twenty years the picture has changed. The bulk of archaeological work has increasingly fallen to a new group of archaeological practitioners; professional archaeologists, working for the government, for universities or acting as private consultants. As the pace of development and the pace of site destruction has speeded up, regulations have been put in place to protect archaeological resources. Professional archaeologists now routinely provide their opinion on the potential effects of proposed development plans, and undertake surveys and excavations in advance of development projects throughout the province. Government has become the legal steward of the archaeological record.

It might seem that the need for avocational archaeologists has been eclipsed: nothing could be further from the truth. Many avocational archaeologists possess an intimate knowledge of their home or research area - a knowledge which is not, and cannot be available to government archaeologists or consultants simply because they are not on the spot. Avocational archaeologists monitor sites. They identify previously unreported sites. They know the landowners, the developers and the politicians. They are aware of what is happening in their communities and are in a unique position to identify what impacts those developments will have on cultural resources. This local area, community based knowledge, is a critical tool in archaeological site preservation and research.

### **The Background to this Manual**

In 1974 the Ontario government passed the Ontario Heritage Act. This act provided the province with the powers to regulate and protect our archaeological heritage. In order to help administer the act equally throughout the province, six archaeology offices were established in regional centres from London to Kenora. The archaeologists working in these offices (two in each) were charged with the job of developing site inventories, liaising with the public, providing comment on development plans and offering public education programs.

Long before the Ontario Government passed the Ontario Heritage Act, avocational archaeologists were actively investigating, recording and researching sites throughout the province. In 1977, Bill Fox in the London office, initiated an "Archaeological Conservation Officer's Program" (ACOP) to

coordinate and organize the activities of avocational archaeologists working in southwestern Ontario. By providing administration, guidance, training and some logistical support, avocational archaeologists already working in the region were willingly co-opted to build a regional site inventory and report on sites threatened with destruction. The project was successful in attracting a consistent core of members whose areas of research interest and local knowledge included virtually all of southwestern Ontario, the Beaver Valley, Simcoe County and the Town of Caledon.

The ACOP program provided a valuable and much needed service for eleven years until 1988 when the coordination and material support previously supplied through the London office were no longer available. Since 1988 avocational archaeologists have continued to conduct surveys and monitor and report on archaeological sites. However, the coordinating link, formerly provided by government staff has been missing. That link provided the consistency, the direction, the training and, most important of all, that sense of contributing to something larger and more meaningful than one's individual efforts can provide.

The Ontario Archaeological Society has decided the former ACOP program was too valuable to let die. The production of this manual is a preliminary stage in the Archaeological Stewardship Project. With this project, the OAS is taking on the responsibility of providing the coordination and training of avocational archaeologists throughout the province. Using the former ACOP program as its inspiration, the goal is the establishment of a consistent, province-wide network of volunteer avocational archaeologists, working as Stewards to monitor, manage and preserve archaeological sites.

This manual, by providing a baseline of practice for archaeological fieldwork in Ontario, is designed to help avocational archaeologists ensure that their contributions to the examination and management of our provincial heritage are of a consistently high standard.

---

## YOUR ARCHAEOLOGICAL LICENCE

Archaeology is strictly regulated in Ontario. To do any archaeological work in this province you must be in possession of a current licence issued by the provincial government. Although this may seem unnecessary, especially if you are just picking up a few chert flakes from the surface of a field, there are sound reasons for this requirement.

Almost all the information we have about some time periods - the Early and Middle Archaic, for instance, has come from the examination of surface collections and destroyed sites. Many of these sites have already been damaged by the years of ploughing which has brought almost all of the cultural materials to the surface. The unregulated, unrecorded collection of artifacts can literally remove the site, reducing its future research or interpretive value to nothing. Your obligation to file a report of any fieldwork conducted under your licence ensures that some record of the site is preserved for posterity. The Ontario Heritage Act is currently under review and there may be changes to the way in which archaeologists are regulated. Until then, you are obliged by law, to apply for and receive an archaeological licence before doing any fieldwork. The legal details of archaeological licensing are spelled out in sections 48-52 of the Ontario Heritage Act. It is worthwhile becoming familiar with this part of the Act.

### In a nut shell:

- \* *you need a licence to carry out any archaeological survey or exploration in Ontario,*
- \* *your licence is only valid in the region for which it is issued and expires on the expiry date,*
- \* *you cannot transfer your licence to anyone else*
- \* *you are entitled to a licence, unless*
  - *you are judged to be incompetent to do the work you have specified, or*
  - *your past record condemns you*

You also have responsibilities. Under Section 65 of the act, you are required to:

- \* *file a full report of the work you have done which conforms to the Minister's requirements (see below)*
- \* *report each newly discovered site on an **Archaeological Site Record** form, and each revisited or previously recorded site on a **Site Update Form** (see below)*
- \* *keep safe all artifacts and field records from projects conducted under your licence*

The licence does not give you the authority to excavate or disinter human remains under any circumstances. Even if those remains are found on an archaeological site, the Ontario Heritage Act defers to the Cemeteries Act which is administered by the Ministry of Consumer and Commercial Relations (see below). Neither does it provide you with the authority to enter private land without permission.

## Your Application

The application form for an archaeological licence is not user friendly. The main problem is that you have to use the same form regardless of the scale or complexity of your proposed work. Whether you are applying to do surface survey and site monitoring around the periphery of your home town, or applying to excavate a two hectare, deeply stratified, multi-component site with excellent organic preservation, the application process is the same.

In filling out the form, be as accurate and comprehensive as possible. Give a well considered and detailed response to each question. Be straight forward. It is not necessary (or advisable) to invent a complex theoretical approach and research strategy if what you want do is monitor known sites and walk a few fields. Explain your project as clearly as possible, and where the questions simply don't apply, say so.

In most cases avocational archaeologists will be issued a **Conservation -Surface Collection Licence**. Each application is judged individually. Forms are available from, and should be returned to:

Archaeological Licence Administrator,  
Ministry of Culture, Tourism and Recreation,  
400 University Ave. 4<sup>th</sup> Floor,  
Toronto,  
Ontario M7A 2R9  
Tel. (416) 314-7123 Fax. (416) 314-7175

## A Word About Process...

When you send in your licence, it is first reviewed by Ministry archaeologists. The project you are proposing is judged against your experience, qualifications and track record. They also look at the effects your proposed work will have on archaeological sites and whether it will contribute to archaeological knowledge. Ministry staff then forward your application, with their comments and recommendations, to the Ontario Heritage Foundation's Heritage Community Services Unit. If the review process is in your favour, this information, along with the licence documents, end up on the desk of the Minister of Culture, Tourism and Recreation for approval and signature.

## Other Legislation

A variety of other pieces of legislation affect the practice of archaeology and the preservation of archaeological sites in Ontario. The most important of these are presented below for your information.

The Cemeteries Act.

Human remains, whether prehistoric or historic, whole or fragmentary, are the domain of the Cemeteries Act. *The Cemeteries Act, (revised) Revised Statutes of Ontario, 1990 prevails over Part VI of The Ontario Heritage Act. 1989.* Your archaeological licence does not provide the legal, moral or academic authority to ignore this legislation. It is worth acquiring a copy of this act from the government bookstore and familiarizing yourself with those parts which affect archaeology. The two sections indicated to the right stand out as being of direct significance to archaeologists.

**THE CEMETERIES ACT**

*Sect.*

*68. No person shall disturb or order the disturbance of a burial site or artifacts associated with human remains except,*

- a) on instruction by the coroner; or*
- b) pursuant to a site disposition agreement. 1989,c.50,s.68.*

*69. Any person discovering or having knowledge of a burial site shall immediately notify the police or coroner. 1989,c.50,s.69.*

The Planning Act

Archaeological resources are not the principal concern of the Planning Act. Nevertheless, under this legislation, some protection of archaeological sites is afforded under Section 2. This provision of the Act has yet to be applied consistently across the province.

**THE PLANNING ACT**

*Sect.*

*2. The Minister, in carrying out his or her responsibilities under this Act, will have regard to, among other matters, matters of provincial interest such as;*

- b) the protection of features of significant natural, architectural, historical or archaeological interest;*

The Public Lands Act

The Public Lands Act granted the Minister of Natural Resources the authority to manage and dispose of Crown Lands and the resources thereon.

Archaeological sites on Crown Land thus fall under the jurisdiction of the Minister of Natural Resources.

The Environmental Assessment Act

Archaeological sites which exist in areas scheduled to be developed by government agencies, public organizations and municipalities are afforded some protection under the Environmental Assessment Act. The inclusion of a "Cultural Heritage Component" in Environmental Assessments usually ensures that known sites are mitigated (either through excavation or avoidance) and other areas, which may contain sites, are archaeologically surveyed.

Archaeological projects carried out as part of Environmental Assessments are usually completed by archaeological consulting companies.

## The Trespass to Property Act

The Trespass to Property Act provides landowners with some degree of protection from unauthorized archaeological surveys. Under this Act, unless you have a clear relationship of understanding with the landowner, you are almost certainly trespassing.

A property does not have to be clearly posted – you can still be trespassing. Under Section 3(1) a-b, you can be trespassing even if you walk over an unfenced arable field or jump a wire fence into a pasture. It is no longer necessary for the landowner to prove that you have damaged anything. Your presence on his land is sufficient cause for prosecution.

If you are challenged (by a tenant or neighbour, for instance), it is no good arguing that the owner gave you permission unless he did. The onus will be on you to prove that it is true.

## THE TRESPASS TO PROPERTY ACT

*Sect.*

*2(1). Every person who is not acting under a right or authority conferred by law and who,*

*a) without the express permission of the occupier, the proof of which rests with the defendant*

*(i) enters on premises when entry is prohibited under this Act, or*

*(ii) engages in an activity on premises when the activity is prohibited under this Act; or*

*b) does not leave the premises immediately after he or she is directed to do so by the occupier of the premises or a person authorized by the occupier, is guilty of an offence and on conviction is liable to a fine of not more than \$2,000.*

*3(1). Entry on premises may be prohibited by notice to that effect and entry is prohibited without any notice on premises;*

*a) that is a garden, field or other land that is under cultivation, including a lawn, orchard, vineyard and premises on which trees have been planted and have not achieved an average height of more than two metres and woodlots on land used primarily for agricultural purposes; or*

*b) that is enclosed in a manner that indicates the occupiers intention to keep persons off the premises or to keep animals on the premises.*

## **PUBLIC RELATIONS**

Imagine for a moment that you are a farmer. You have just settled down to Saturday lunch after a hard morning working on the baler. This afternoon you and your family are going in to town to the supermarket and to pick up some parts from the John Deere dealer. Unexpectedly the front door bell rings. You haven't used that door for years - not since you brought that new fold-out couch into the living room. Reluctantly you put down your fork, and get up from the table.

Standing in the porch are two young men. They haven't got suits on, so you guess they are not peddling religious tracts - anyway those people have enough sense to go to the back door. Through the glass you note with some annoyance that these fellows have tracked mud and gravel from the path onto the carpet. After a bit of a struggle you get the door to move, but it is barely open before the one with the wild red hair has started talking.

"Good morning. We are conducting archaeological field surveys looking for Early Archaic lithic scatters in the area and would like your permission to examine these fields."

He waves his arm in the general direction of your freshly sowed soy beans, the shoots of which are just breaking the surface.

"Our records indicate that a collection of bifurcate points were retrieved from this area and deposited in the R-O-M in the thirties. We would like to check the sites for condition and status."

The other one lingers in the background, smiling encouragingly. He has a compass on a string around his neck, a canvas pack on his shoulder and a pointing trowel sticking out of his back pocket. You have a strong desire to punch his pimply face. You have been finding arrowheads and stone tools on your property for years. You even once took the time to look them up in the local university library. You would gladly find out more, but their assumption of your ignorance, and their presumptuous attitude has irritated you. They look rather surprised when you refuse them permission.

Your archaeological licence does not grant you the legal, or the moral, right of access to private property (see above). In order to examine archaeological sites or conduct surveys on private lands you are entirely dependent on the good will of those who own or manage the land. You may think your project is the most important contribution to heritage conservation and archaeological research in the province (and it may even be true) but unless you gain access to your study area, it will fall flat.

Landowners have great power over the archaeological record of the province. If interested, they can provide you with access for survey or excavation, act as stewards of the resources on their properties, and even tailor their farming practices to preserve sites. Uninterested or alienated, they can refuse access to researchers for decades and cause endless damage to important sites.



Human relations are tricky things at the best of times. Some people are relaxed and approachable, others are thorny and difficult to get along with. Some individuals are just so suspicious, misanthropic and fearful that you will never make any headway with them. Others may simply be uninterested. Yet if you can establish a long term relationship of trust, good will and interest, you will probably have done more good for heritage conservation than any legislation could achieve. But don't expect to be successful in every encounter. Obviously each meeting will be different and you will need to be flexible.

Here are a few pointers which may be useful:

- \* Put yourself in their position. How do you like to be approached?
- \* Don't be in too much of a hurry to launch into your speech. If it seems appropriate, talk about the weather, the crops, the cattle - the landowner has concerns and interests too. There will be time to get to the nitty-gritty later.
- \* Introduce yourself as a person rather than as a representative of an organization. "Hi. My name is Glen Meyer and my colleague here is John Lalonde. We are interested in the Indian history of the area...." This will probably go down a lot better than, "Hello, the Ontario Archaeological Society is undertaking a program of research into the cultural dynamics of the Late Woodland Middleport occupations of this region. We would like..."
- \* Avoid talking down. Nobody likes to be patronized, and you may be surprised at just how much he/she knows.
- \* Don't try and demonstrate your breadth of knowledge and erudition. If you've got it, it will be obvious. If you haven't, that may be obvious too.
- \* Be polite. Even if, after all your introductions and explanations, you are turned down, accept the verdict with equanimity. People do change their minds. Even the most resistant landowner may be swayed by the good reports he hears from his neighbours of your work and conduct.
- \* Never survey or test on property for which you have not gained permission. Even though your interest in heritage conservation may be consuming, it should not override your good judgement, and it certainly does not override the rights of others. Even if you don't get caught, shot or prosecuted, you are in danger of jeopardizing not only your chances of gaining access to the area, but the chances of others. Nobody likes to have their privacy invaded. Farmers and landowners can be very protective of their land, yet, in my experience, if approached with sincerity, respect and tact, are almost always willing to allow you on to their property. Respect their rights.

If you are fortunate enough to be given permission to survey or investigate a piece of property, there are some obvious points which are worth reiterating:

- \* Only do what you said you would do. It would be unwise to get the gradalls in if you said you were only going to walk and map the field.
  - \* Field Gates - If they are open, leave them open. If they were closed, close them after you.
  - \* Fences - Avoid climbing them if you can. If you have no choice, climb close to a support where they are strongest.
  - \* Avoid damaging crops. Wherever possible, walk between the crop rows. Always backfill any test pits.
  - \* Ensure that the landowner understands and agrees that you will be removing artifacts from his property.
  - \* Before you leave, show the landowner what you have found and explain its importance. People like to be informed - and you may create an ally.
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## REPATRIATION AND NATIVE PEOPLES

The term "repatriation" is one which will become increasingly familiar to archaeologists working in Ontario. In essence, it means the return of objects of cultural value to the people for whom they have an on-going historical, traditional or ceremonial value. In Ontario, that usually means the return of artifacts or human remains from archaeological excavations, or those held in museums, to First Nations communities.

In the past archaeologists gave little consideration to the concerns, feelings and beliefs of the descendants of the very people whose remains were being excavated. If native people expressed any concerns, their views rarely swayed the researchers. Sacred objects and human remains have been acquired, often without the consent or knowledge of native people, and are now housed in private and museum collections around the world.

Repatriation is an issue where the aspirations and emotions of archaeologists and native people are in greatest conflict. On the one hand archaeologists have worked and studied to recover, record and examine traces of past cultures through the materials in the ground. In doing so they have generally believed that they were performing a valuable service for the people of Ontario by building and broadening their perspective of the past and by preserving sites of scientific value. Indeed, this is the purpose behind archaeological licensing and the various forms of legislation designed to safeguard archaeological sites. On the other hand, First Nations people have often viewed archaeological work with suspicion, anger and dismay as they have seen aspects of their living heritage bagged, tagged and carted away. When they have expressed their anguish vocally, they have been greeted with such well meaning, but perhaps misguided statements as, "But we are preserving your heritage for you!".

But bridges are slowly being built. Native people are becoming more knowledgeable about archaeology, and archaeologists are becoming more concerned with the views and feelings of First Peoples. Such initiatives as the "Task Force on Museums and First Peoples", jointly sponsored by the Canadian Museums Association and the Assembly of First Nations, have gone a long way to increasing understanding and the building of relationships. The Canadian Archaeological Association is currently developing a similar dialogue with First Nations groups. The issue of how artifacts from aboriginal archaeological sites should be dealt with is unlikely to be easily resolved. Archaeologists want the artifacts to be available for study and are concerned that if they are repatriated, they may be reburied, or curated in such a way that they are unavailable for future study. First Nations groups argue that how artifacts are treated is a decision which should reside with the nearest native community. Somewhere between the two opinions there is a middle ground whereby artifacts can be repatriated to native run cultural institutions where both spiritual and scientific considerations can be met. We need to work with honesty and enthusiasm to find that middle ground.

Under the existing Ontario Heritage Act the Minister "may direct that any object taken under the authority of a licence or permit be deposited in such public institution as he may determine to be held in trust for the people of Ontario" (RSO 1990, Chap. 18, 66.1). Thus, under existing legislation, the final decision of where artifacts from surveys and excavations eventually reside currently lies with the Minister.

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## BASIC TRAINING AND NECESSARY SKILLS

### Maps

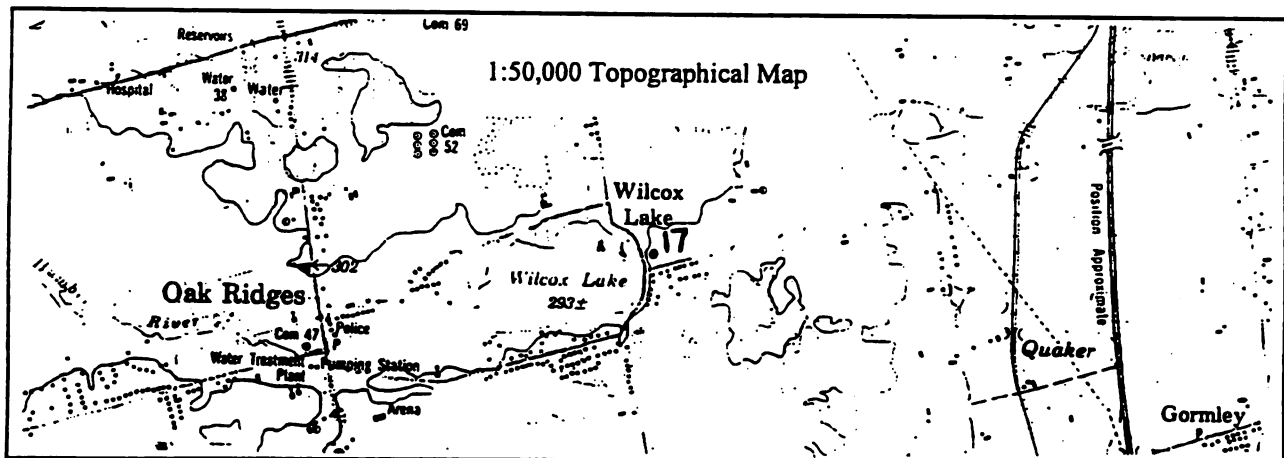
Examining, studying and daydreaming over maps is one of the great pleasures of archaeological research. In giving us a birds-eye view of the world, maps allow us to see and interpret our environment in ways which are normally unavailable to us. A basic familiarity with maps and mapping is necessary in order to complete an Archaeological Site Record form (and thereby comply with one of the conditions of your licence). The maps most commonly used in archaeological surveys are:

#### Topographical Maps

Topographical maps allow you to view your research area as a whole and to see how your sites fit into the landscape. They also indicate any modern features which may have a bearing on site preservation (such as roads, buildings, hydro lines etc.) which may not be immediately apparent from the ground.

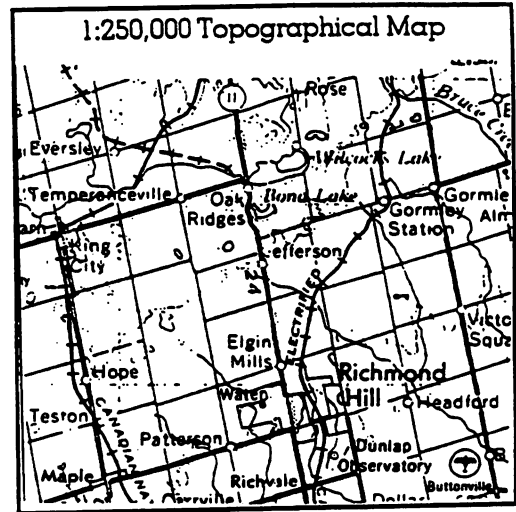
#### 1:50,000 Scale

The most frequently used maps are the 1:50,000 series, published by the Canada Map Office of Energy Mines and Resources, Canada. These are widely available from authorized dealers throughout the province, or directly from Energy, Mines and Resources in Ottawa. Each map covers an area about 38 kilometres long by 28 kilometres wide and provides considerable detail. These are the familiar "topo" maps from which it is possible to acquire all the information necessary to complete the **Site Location** section of the Archaeological Site Record form. When you send in a completed form the MCTR will plot your information on maps of this scale.



**1:250,000 scale:**

Energy Mines and Resources, Canada also produces topographical maps which cover a far larger area. These 1:250,000 scale maps are useful for plotting site distributions at a regional level, particularly in Northern Ontario, but lack the detail necessary for site recording or field research.

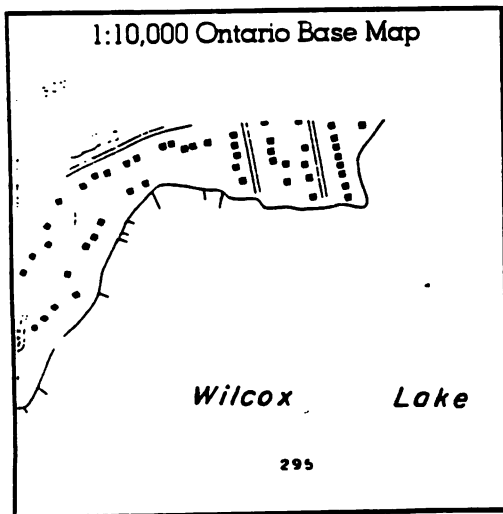
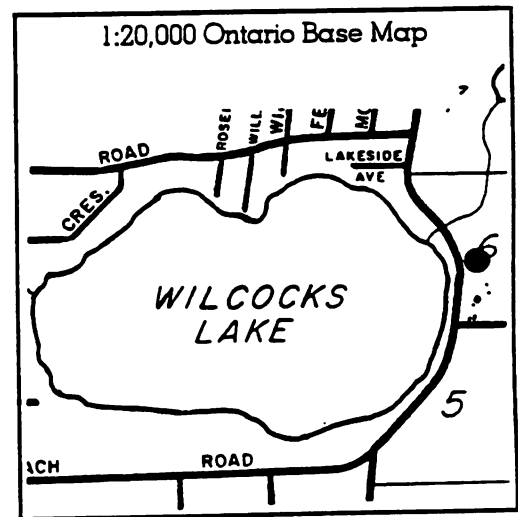


**Ontario Base Maps**

The Ontario government also produces numerous maps. **Ontario Base Maps** are particularly useful for archaeological surveys. Ontario Base Maps are available in three scales.

**1:20,000 scale:**

Most of Northern Ontario, south of the Hudson's Bay Lowlands has been mapped at 1:20,000 scale. What these maps lack in colour (they are only available in black and white), they make up for in detail. Contours are indicated at 10 metre intervals. They are the ideal scale for regional surveys.



**1:10,000 scale:**

Mapping at 1:10,000 scale is available for Southern Ontario. Contours are indicated at five metre intervals, and the maps are produced in black and white. This enables researchers to add their own colour schemes to indicate such things as areas surveyed, physiographic features examined, and so forth. Both the UTM (Universal Transverse Mercator) grid and lines of latitude and longitude are indicated on these maps, thus it is possible to plot site locations with considerable accuracy.

1:2,000 scale:

Eventually most urban areas of Ontario will be mapped at 1:2,000, with contours shown at 1 metre intervals. At present coverage is not complete. Information on which areas have been mapped is available through the Ministry of Natural Resources, Public Information Centre.

### **Other Maps**

The sheer abundance of specialized maps can be overwhelming. Maps indicating everything from the migration routes of Trout and Salmon in Northern Ontario to Surficial Geology and Soil Types are available. Most universities have a map library where you can get help in identifying which maps would be most useful to you.

### **Aerial Photographs**

Aerial photographs are available from the Ministry of Natural Resources Public Information Centre for virtually the whole of Ontario. Like the topographical maps they come in a variety of scales. Aerial photographs are available as 23 cm by 23 cm. (9 x 9 inches) sheets at scales of 1:10,000, 1:15,840, 1:30,000 and 1:50,000. Enlargements are available (at extra cost), so it is possible to gain complete air photo coverage of your study area if you so desire.

Each aerial photograph is taken so as to provide a 60% overlap with its neighbours. By viewing two adjacent photographs through a stereoscope viewer, you can fool your brain into thinking that it is looking at a three dimensional landscape. Subtleties of relief not visible on a single photograph are much more apparent with the stereo pairs because the vertical scale is exaggerated.

### **Aerial Photograph Interpretation**

Aerial photography has been making significant contributions to archaeological survey and research since the days of the Sopwith Camel. Numerous archaeological sites have been discovered from the air by observing differential patterns of crop growth, subtle shadows and variations in topography. Little research into the possibilities of aerial reconnaissance has been undertaken in Ontario, partly because detecting subsurface features from the air requires a huge investment in air time and photographic film which may not be justified by the results. Even detecting substantial archaeological sites may require that the overlying crops be examined under a wide variety of growth and moisture conditions.



Sample aerial photograph



Aerial photographs can be a valuable tool and an adjunct to topographical maps. Maps provide an interpretation of the landscape they cover - they do not provide the subtleties of information available on aerial photographs. For instance, elusive and complex arrangements of former lake shore features may well show up on aerial photographs, but not have been indicated on the topographical maps because the contour intervals were too large for them to show as individual features. Some species of vegetation may only occur along streams, along ridges or in areas of prior disturbance which may lead to site identification. For instance, in northern Ontario poplar trees and jackpines usually indicate well drained soils. Seasonal creeks, springs and seepages of water which are quite clearly visible on the aerial photographs may not have been marked on topographical maps yet may have been of significance to prehistoric native groups.

*Sources*

**OBM Maps and Aerial Photographs**

Ontario Ministry of Natural Resources,  
Public Information Centre,  
Rm MI-73, McDonald Block,  
900 Bay Street,  
Toronto,  
Ontario M7A 2C1 (416) 314-1666

**Topographical Maps**

Energy Mines and Resources Canada,  
Canada Map Office,  
130 Bentley Avenue,  
Ottawa,  
Ontario K2E 6T9 (613) 952-7000

Federal Publications,  
165 University Avenue,  
Toronto,  
Ontario M5H 3B8  
(416) 581-1552

**Photography**

Photographs of archaeological sites and artifacts form an integral part of the site record. When they are clear they are a valuable archive of information. When they are unfocussed or poorly executed they are barely worth the effort.

Making an adequate photographic record does not require a vast cash outlay on equipment, or a detailed knowledge of technique. With a little careful thought, valuable photographs can be coaxed from quite meagre equipment. While single lens reflex (SLR) cameras are the norm for most archaeological fieldwork, many of the modern automatic cameras will provide acceptable results. Remember, this is not art. The object is to provide a record which will aid future researchers. Unless you are embarking on a recording project where special techniques, special film and elaborate equipment will be required, all the techniques necessary for producing good results will be outlined in the manual which came with your camera or in a simple guide to photographic techniques.

### Photographic Log

Before beginning any fieldwork, make a photographic log book. This can be a simple ruled notebook in which to keep a record of all the photographs you take in the field. It should also be used to record your artifact photographs. A sample photo log sheet is provided below:

PHOTOGRAPHIC CATALOGUE				
SITE				
CAMERA		FILM	ROLL NO.	
Shot	Description	Direction	Date	Apt./Speed

### Site Photographs

Site photographs are a valuable aid for relocating sites in the field. General site shots show the site in its surroundings, and point out significant aspects of the local environment which may not be apparent on maps or aerial photographs. The field conditions which were present at the time of your survey will also be apparent.

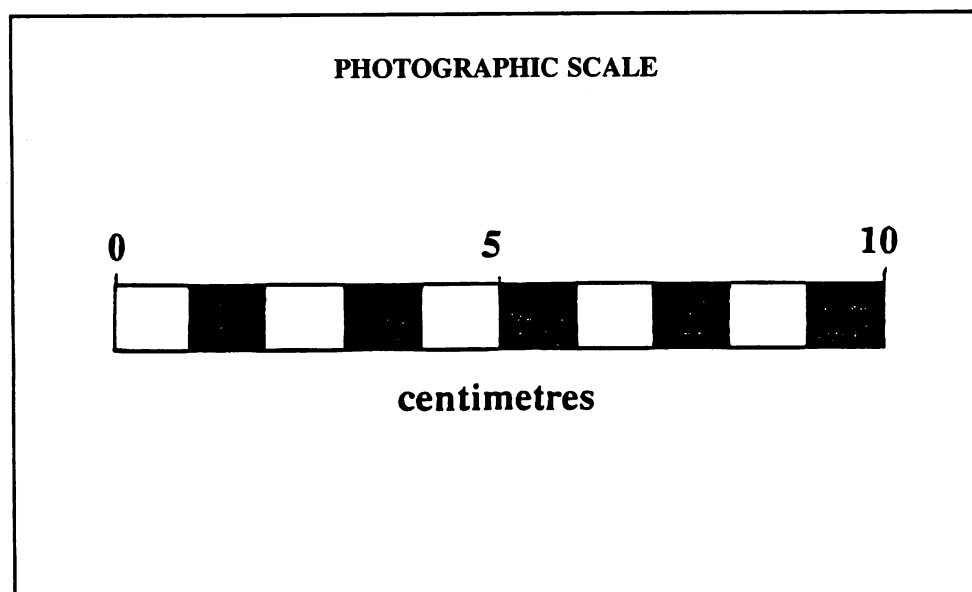
Take a number of photographs of each site or find-spot from a number of angles. Since you will be keeping a log of each photograph you shoot, it is a small step to mark the exact location from which you took the shot, and the direction you were facing, directly on to your field map. Don't forget to write the roll and shot number next to the arrow.

On bare fields, short lengths of flagging tape attached to straws can be used to highlight areas where archaeological materials have been found. In areas where the crops are higher, or in forested areas, lengths of flagging tape can be hung from the vegetation to concentrate the viewers attention on

the area of interest. This works particularly well at northern Ontario lakeshore sites where the vegetation often comes right down to the water.

If photographs are to be included in the report, areas of interest can be highlighted by adding detail around the periphery of the photograph, with lines pointing to the areas of interest or concern.

Some people are beginning to use video cameras effectively to record archaeological sites. A video film can provide a panoramic view of a site's location which is hard to duplicate using a static medium. Videos also "capture the moment" in ways which can be valuable for jogging the memory when it comes time to write up your report. But no matter how talented you are as a photographer, you should regard photography as a tool and not as an end in itself. Remember always to provide clear and detailed information of exactly what it is you are recording so that others viewing the film in the future can use your information effectively.



## **Artifact Photographs**

Artifact photography is a specialized art to which many of us aspire but few master. Nevertheless, it is possible to take artifact pictures, with minimal equipment, which will be both attractive and useful.

The first stage is to have a clear idea of exactly what you are trying to achieve. Is the purpose to provide a sample of diagnostic artifacts so that people reading the report can evaluate your interpretations, or are you aiming to provide research quality technical photographs which other archaeologists can use in lieu of the real thing? I suggest that we should aim for the latter, in order to achieve the former. The main enemies are shadow and glare. The objects being photographed should also be in focus.

Decent artifact photographs can be achieved using the following basic recipe:

- \* a camera with a macro lens (these can be rented quite cheaply from most camera stores if you don't have one)
- \* a small table or large stereo speaker
- \* a tripod (or other method of holding the camera vertical and completely steady - your hands won't do)
- \* a large piece of translucent or white paper
- \* a light source (sunlight, photographic lamp, or table lamp)
- \* a piece of felt or non-reflective cloth
- \* film
- \* masking tape
- \* photographic scale (see above)

Add the film to the camera and affix to the tripod. Drape the felt or cloth over the table so that the surface is smooth, unwrinkled and free from bits of lint, dust and dirt. Arrange the object or objects to be photographed on the flat surface. A sheet of glass suspended on gobs of plasticine above the table can also give effective results. Add the scale.

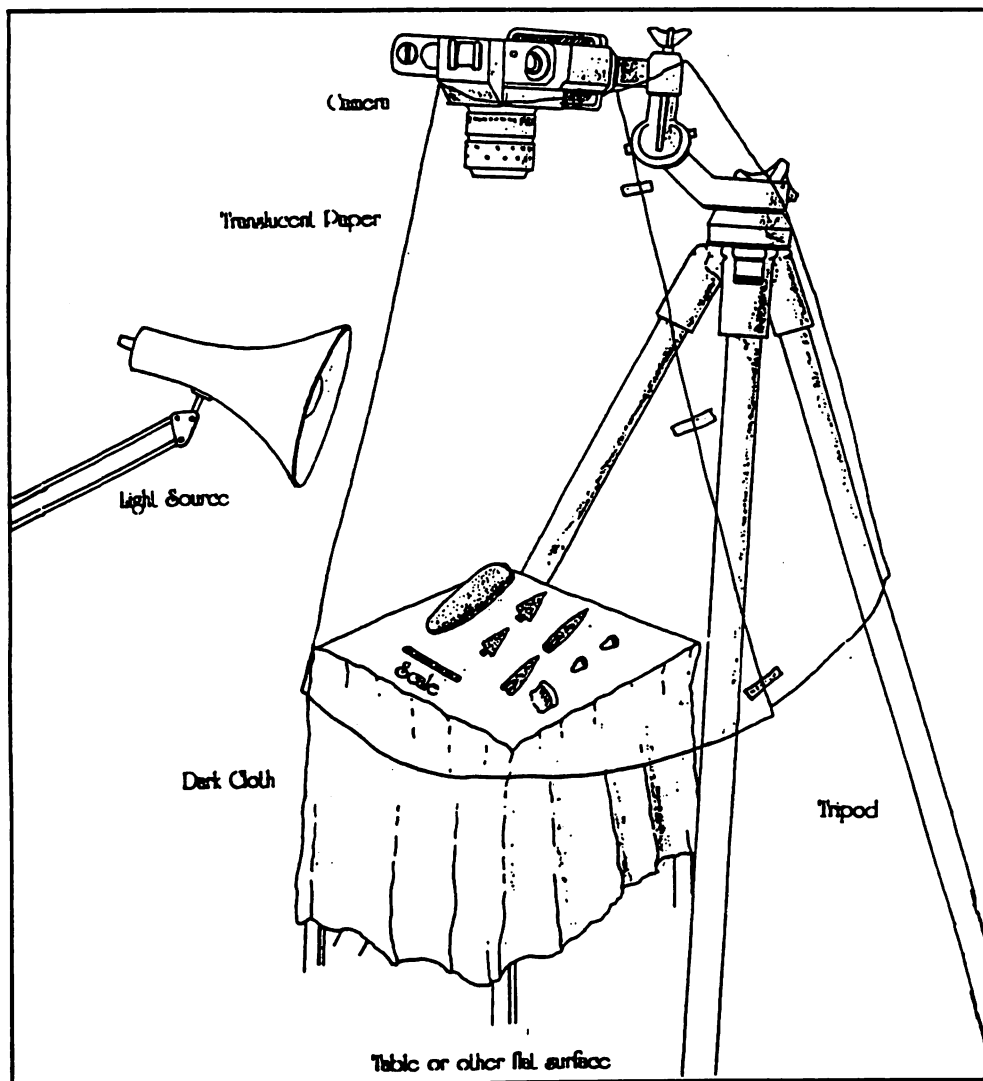
Centre the camera over the objects. Adjust the height of the tripod and focus of the camera until the arrangement of the objects visible through the camera coincides with your wishes.

Arrange the paper so that it encircles the whole set up. Hold it in place with the masking tape. It may not look pretty, but it will diffuse the light. Add the light source.

Examine the artifacts through the camera. Are the shadows too intrusive? Is there too much reflected light on the objects? Do the details of decoration on the pottery stand out? Is everything in focus? Play around with the location of the light source until the main shadows disappear into the cloth (or diffuse into the void beneath the glass) yet there is enough raking light to highlight the irregularities of the objects. If you are using a "through the lens" meter, make sure that you have enough, and not too much light. Record the camera settings on your photographic log - and shoot! Bracket the shot, by altering the f-stop one notch up, and one notch down from the original setting.

If you take the time to record the aperture and shutter speed and the photo turns out to be a complete disaster, at least you will be able to avoid making the same mistake twice.

After your films have been developed, be sure to catalogue them so that they coincide with your photographic log. In this way, they, along with the artifacts they depict, will become part of the archive of the site.



Artifact Photography

## **Survey Methods and Techniques**

Many people reading this manual will already have had plenty of experience in finding archaeological sites. We find them on knolls, adjacent to springs, on sand points and next to rapids. With a little understanding of the relationship between geography and human settlement patterns, they are easy picking. However, in order to gain a complete picture of the human use of a study area, we must be thorough, even if it means surveying areas which appear unappealing and without much potential. In recent years archaeologists working as consultants have been obliged to test or survey some unprepossessing areas in order to satisfy their contracts. The results have sometimes been surprising. Archaeological sites are being found in some quite unexpected areas; areas which, in the past, would probably have been overlooked.

### Developing a Strategy

A strategy is your overall plan for the archaeological work you intend to undertake. At its most general level, your strategy could be a lifetime's work of survey, exploration and interpretation in one part of Ontario. At a more specific level, it could mean the work that you intend to undertake in any week, month or year. Whether you are systematically recording all the pictographs in a drainage basin, or attempting to examine all the ploughed fields in a township, the strategy keeps you focussed. It is the basis for the methodical investigation of your study area.

### Negative and Positive Results

Once your objectives have been set you can work steadily toward their realization. But don't just focus on your successes. Locating and recording archaeological sites is obviously the basis of your study, but the negative evidence you encounter is also of considerable value.

When you send in the site record (Borden) forms for the sites you have discovered, or the site update forms for those you have revisited, they will become a permanent part of the provincial archaeological record. But what about the areas you have examined where no sites exist? Mark them off on your map and include the information in your annual licence report. This information will be extremely valuable to Ontario government staff evaluating development plans in the area, and to research archaeologists examining patterns of land use and settlement.

### Field Techniques

Ontario is vast and geographically diverse. Archaeological field techniques which may be applicable to one part of the province may be hopelessly irrelevant in another. Loading up your mylar and acrylic paints and heading down the Credit River looking for pictographs would be about as profitable as searching for ploughed fields to walk in Kenora District.

Clearly, the field techniques you use must be appropriate to the conditions you encounter. While ploughed fields do exist in northern Ontario (I know some farmers who would be incensed at the suggestion that they didn't) and pictograph sites are not completely absent from the south, in general much of southern Ontario contains urban areas, farmland and woodlots, while the northern Ontario landscape is dominated by rocks, trees and water. The following field techniques take those basic differences into account.

## SOUTHERN ONTARIO

### Field Survey

Ploughed fields, or fields with limited crop growth can be surveyed by carefully scrutinizing the surface of the field. Ideally, the whole of each field to which one has been granted access should be surveyed. In this way, areas without archaeological sites can be mapped in addition to those areas where sites are present.

The "Archaeological Assessment Technical Guidelines" for archaeological consulting surveys in Ontario stipulate that:

"Surface survey transects on ploughed fields or other open terrain shall be spaced at 10 metre intervals or less. This interval must be reduced to 5 metres or less in high potential zones..."

While these requirements do not extend to avocational surveys, they are a sound general guideline and provide a base line of usable information for other archaeologists. More random methods of field survey, or "hot spotting" may well result in the discovery of sites, but will not provide the whole picture of the study area.

Well washed, bare fields with a dry upper surface present optimum conditions for field survey. Under conditions like these the artifacts look as though they have been sprinkled across the surface, and finding them is like picking apples.

Less ideal circumstances occur when the fields are bone dry and dusty and when the annual crop has begun to emerge. Field walking is possible under these circumstances, the crop rows even providing a handy guide to surveying, but unless the fields are well washed and have a substantial percentage of their surface visible, it is possible to miss significant information. Examining the same field under a variety of soil and crop conditions is the best way to ensure that you are getting the full picture.

**TIP** Carry a package of straws in one pocket and some flagging tape and a small staple gun in the other. Each time you find a chert flake, an iron nail, a pot sherd or a birdstone, rip off a length of tape, staple it to the straw and jab it into the ground next to the artifact. In this way you can soon build up an accurate picture of the distribution of artifacts across the field. I generally leave the artifacts by the straw until I have surveyed the whole field, then collect them once the survey is complete. This only works when the fields are bare or the crops are low. Once they have grown up (to about knee height) you can attach the tape to the plant tops for the same effect. Once they have grown higher, you are out of luck. Individual artifacts can also be marked in this way, but be generous with the tape, or you may not be able to relocate the find.

### Recording the Results of a Field Survey

Field notes and sketches are a vital part of archaeological fieldwork. You may know where every artifact you have ever found comes from, but unless that information is recorded you will take it to your grave. An inestimable amount of information about the archaeology of Ontario has been lost in this way.

Maintaining a field record need not be the laborious task it seems. It can be as simple as marking your surveyed areas on a map, measuring in and sketching the locations of any finds on a simple plan, and making a few notes of any observations you may have made.

Let us assume that you have been examining some fields near to your home. In one field you have discovered:

- \* a spread of chert flakes and bone fragments on the surface of a small sandy knoll. You have marked the location of each find (perhaps with straws and tape), and can see that the artifacts do not spread far from the crest of the knoll.
- \* Close to the road you have found a number of pieces of blue transfer print pottery, some square nails and a few fragments of glass.
- \* You also found a superb Meadowood point, all on its own, close to the small creek which forms the western edge of the field.

The first thing to do is to make a detailed sketch plan of the field.

As accurately as you can, sketch the field boundaries and any other details which you can see. Permanent features of the landscape, such as buildings, hydro towers, roads and fence and lot lines make valuable reference points.

Using your compass, establish the direction of magnetic north and mark it on the plan. Now, standing in the centre of your flake scatter (AREA A), look around until you can see at least two of the permanent features you have marked on the plan. If they are within the field boundary, so much the better. Draw a small arrow on the plan pointing from where you are standing, towards the fixed object. Measure the bearing and mark it on the plan. Now pace towards the fixed object, remembering to count the paces as you go. (Measure your own pace sometime – you may want to transform "paces" to metric measurements.)

#### **Tools for making a sketch Plan**

You will need:

- \* a pencil
- \* an eraser
- \* graph paper or sketch form
- \* an accurate compass
- \* good eyesight
- \* stamina



If, for instance, you have selected an object on the other side of a fence which you cannot easily reach, it does not matter. Just measure the distance to the fence and mark this on the plan. If you think the drawing will be crowded you can always put the details down in your notebook thus:

**SURVEY NOTES**

Lot 23, Concession 8,  
Wheeler TWP.

AREA	BEARING	DIST.	DESCRIPTION
A	1. 95°	120 paces	Fence in line with SW corner of 2nd hydro tower north of Ct Rd 5
	2. 139°	240 paces	Fence in line with NW corner of 1st hydro tower north of Ct Rd 5
	3. 270°	189 paces	Stream edge in line with NE corner of Cunliffe farm

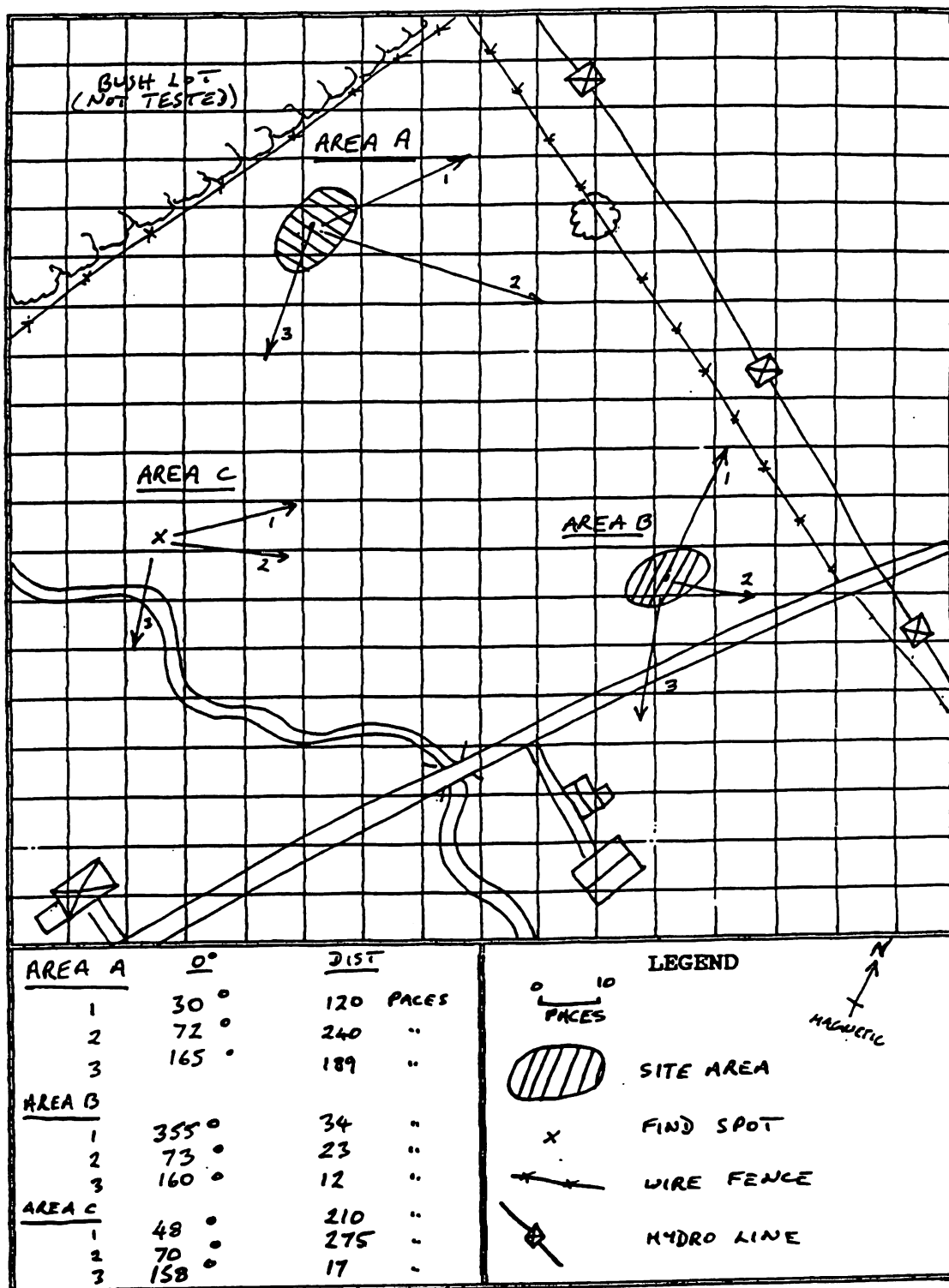
Repeat this process for each of the concentrations of finds or find spots. You see where the stamina comes in?

Feel free to annotate the field sketch with any details that seem appropriate. You may wish to show significant changes in elevation, soil stains (even if they don't coincide with concentrations of artifacts), or any other features that seem pertinent.

Your field note book is for recording all those things which appear obvious when you are standing on the site, but which you will inevitably forget once you are home. A general written description of the site location and circumstances of discovery is a good place to start.

Controlled Surface Survey

Before you remove any artifacts, are you sure that you can justify their removal from their current position? It is important to remember that the position of each artifact is meaningful. Even if the things you are finding are from disturbed contexts, concentrations may reflect the ways in which they were originally deposited. For example, a cluster of chert flakes and fire cracked rock across a lakeshore beach may indicate the presence of a nearby archaeological feature in the process of eroding out of the adjacent land. Can you locate the original source of the artifacts?

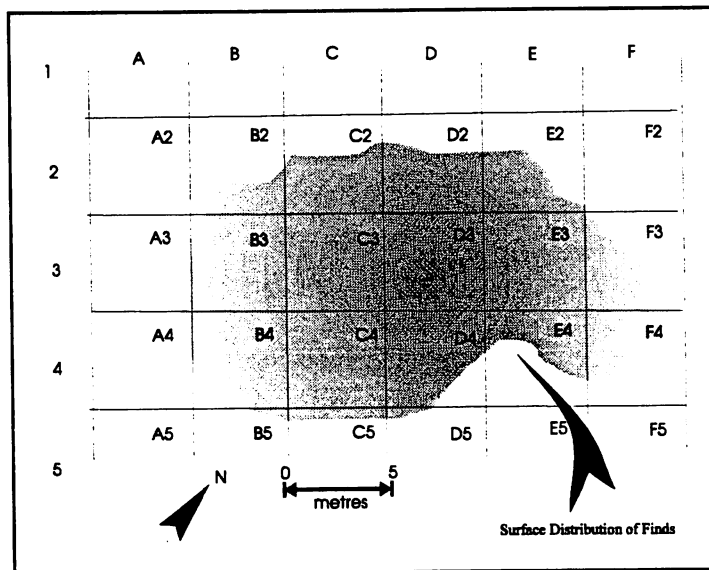


Site Location Sketch

Similarly, the positions of artifacts lying on the surface of a ploughed field may reflect patterns in the ground below the plough zone. Agricultural equipment has remarkably little effect on the horizontal position of artifacts. It may bring them to the surface, but the degree to which it smears them across the field is minimal.

Don't just pick up the diagnostics and leave the debitage and/or body sherds in little piles. In doing so you may be destroying evidence which others may be able to interpret. Pick up all the artifacts in logical groupings which can be related back to your field sketch. If possible, you should establish a grid across the artifact spread, allocate each grid square a unit number and collect and bag the artifacts within each grid square separately.

Each bag should be clearly marked with your site number and whatever provenience information you can attach to it. Plastic baggies are ideal for surface collection from most sites. Indelible markers can be used to write on their exterior surface. A weather resistant tag containing the same information as on the exterior, should be put inside. Small strips of "Tyvec" house wrap are ideal for this purpose. They are easy to obtain, easy to write on, are waterproof and virtually indestructible.



Controlled surface survey

### Woodlots and Pastures

Woodlots and pastures present a completely different set of problems for archaeological surveying. Except where earthworks or foundation remains may suggest the presence of a site, the archaeological resources in these areas are not visible on the surface and (remote sensing techniques notwithstanding) must be dug for. Your licence may not cover this kind of activity. Check with the Ministry's archaeological licence office - it may be necessary for you to apply for a different licence if you intend to use test pitting.

Until someone devises a better method, shovel test pits are the most effective way to test for archaeological sites under these circumstances. Shovel testing is achieved by shovelling out small (30 cm. by 30 cm.) rectangular holes and sifting the soils through a screen to trap any artifacts. Each test pit is dug deep enough to ensure that either sterile subsoil has been reached, or that buried cultural deposits are present.

The test pits are arranged in a grid pattern so that the maximum area can be covered with the minimum of effort. The "Archaeological Assessment Technical Guidelines" insist on a minimum test interval of 10 metres, closing to five metres in areas of high archaeological site potential. These are good standards to adopt, since they provide an adequate sub-surface look at the area being tested, without requiring too excessive an effort.

It used to be acceptable just to trowel through the test pit soils in a search for artifacts. This is no longer the case. Too much was being overlooked. A screen with a mesh size no greater than 5 mm. (about ¼ inch) must be used, and all soils from each test pit must find their way through the screen. By their very nature test pits are destructive to archaeological sites. Once a site has been located it is extremely tempting to blanket it with test pits while attempting to define its size and cultural affiliation. The dividing line between the search for those diagnostic artifacts and pot-hunting is a very narrow one — and both result in irreparable damage to a precious resource. It is better to be less sure of the cultural affiliation and age of the site, and more sure of its integrity.

In order to make a sketch plan of test pits excavated in a woodlot or pasture you should use essentially the same techniques as described for open fields. It may not be possible to see any suitable reference points through the trees and branches. If this is the case, you will have to create a fixed point or datum before you can complete the sketch plan. This may not be an easy task. You may have to trim foliage and bend back branches just to be able to sight on to anything permanent.

### Cities and Suburbs

With the exception of a few modern "planned towns" most urban areas exist for sound geographical reasons. Quite simply, urban areas have tended to grow up where the local environment most favours human settlement. Good communications, abundant natural resources in the hinterland, reliable water supply and strategic considerations were as important to past cultures and generations as

they are to our own. It should not be surprising, therefore, to find that both prehistoric and historic sites are abundant in urban areas, and indeed, that they may be more numerous than in the surrounding areas.

The process of modern development tends to be extremely destructive to archaeological sites. Often all the topsoil, and much of the subsoil is bulldozed long before footings and basements are poured and utility trenches are established. This was not always the case.

Not too long ago basements and footings were dug by hand and large scale landscaping was rarely undertaken. The direct impacts upon the ground surface, even in areas of quite substantial development extended little further than the footprint of the building. Many of the older sub-divisions in Ontario's towns and cities contain large areas which have only had their surfaces scratched. They retain considerable potential for revealing relatively undisturbed archaeological sites.

Archaeological survey in urban areas presents a number of problems which are not encountered in the country. You may have to contact dozens of different property owners just to be able to examine the smallest of areas. People are quite fussy about their gardens, and may not be too excited at the prospect of you digging little holes through their best Kentucky Bluegrass. On the other hand, flower and vegetable gardens can provide a unique opportunity for you to examine some fragments of an area which is otherwise unavailable for examination. Utility trenches and road works may provide opportunities for you to examine the ground in cross-section, and to scan the backdirt piles.

Systematic, door to door urban archaeological survey would be a daunting task. It would almost certainly be more profitable to identify possible site locations through careful study of topographical maps, the examination of museum records, and through archival and historical map research.

## **NORTHERN ONTARIO**

Archaeological survey in northern Ontario can present problems (and pleasures) not normally associated with fieldwork in the south. Your survey area may be quite remote. It may be necessary to travel by boat or canoe and to camp out, simply to reach the area under investigation. Strong winds, waves and biting insects can have a considerable effect on your capacity and desire to do the work. Adequate preparation and suitable equipment are essential.

### Site Survey

The northern Ontario landscape is dominated by water. Much of the human settlement of the region has been oriented towards these natural travel corridors. The thick forests and the difficulties of overland travel has led to a concentration of archaeological sites along the margins of the innumerable lakes, streams and rivers which dot the landscape. While not all the archaeological sites in the region are oriented to water, the vast majority are.

This focussing of human activity along the waterways continues into the present. Although we now use the waterways primarily for our pleasure, we tend to gravitate to the same places which people have found attractive in the past. The places we choose to establish our cabins and campsites frequently coincide with those others chose long before us.

The natural processes of erosion along the water's edge has resulted in the exposure of many sites. This is particularly true where lake levels have been artificially raised, causing the lake to cut new banks into what was formerly dry land. Numerous archaeological sites have been damaged and exposed in this way.

Recording these sites is an extremely important contribution to Ontario archaeology.

### Site Mapping

You have identified an area you wish to survey. You have received your licence, duly signed by the Minister. You have assembled your camping gear, your field equipment and your food and are ready to set off. The list below is the absolute minimum equipment you would need to record a small, eroding archaeological site in northern Ontario.

Let us assume you have located a small prehistoric camp at the end of a portage trail. You have found flakes of chert eroding down the bank where people slide their canoes into the water. Chert flakes and tiny fragments of pottery are also visible in the shallows at the base of the slope and across the surface of the nearby campsite.

**Before you pick up a single flake**, you need to establish a point of reference for your survey. Your mapping of the site and your surface collections will all relate to this fixed point. A large boulder (too large to be moved by hand), or a prominent piece of bedrock outcrop are the best candidates. Chisel out a small cross (discreet - but not so minuscule that it can't be found again) with your cold chisel and hammer.

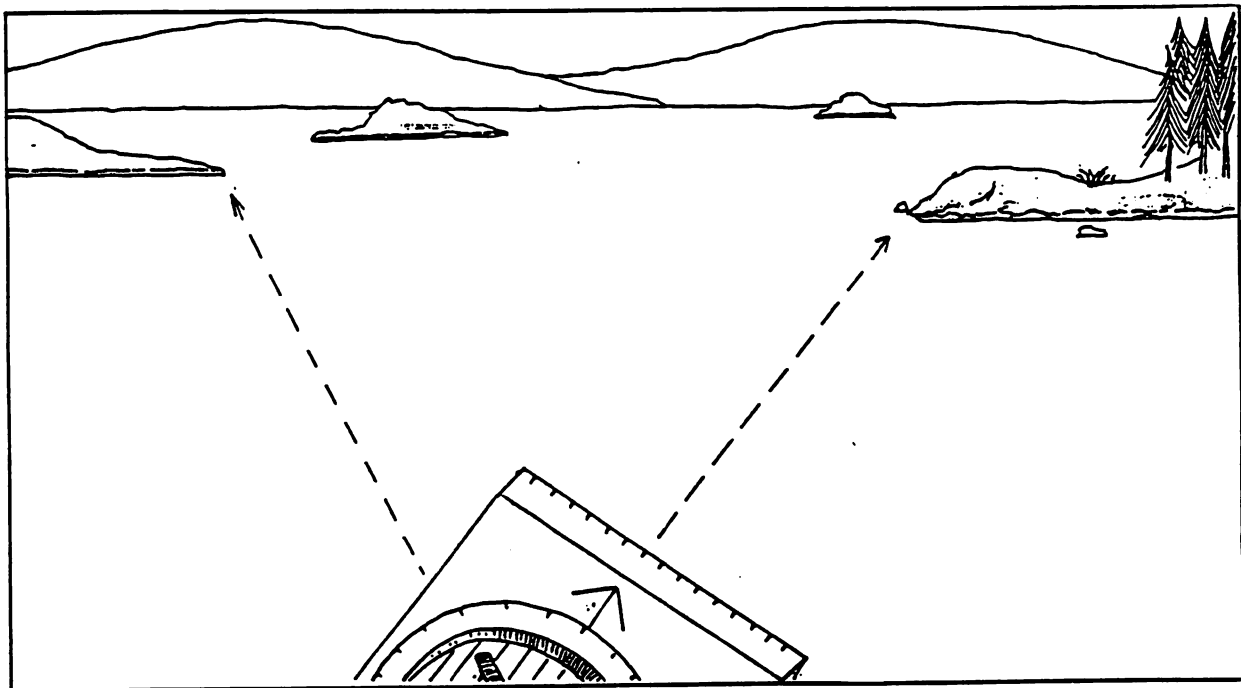
#### **Survey Field Equipment**

Compass
Maps (1:50,000 & 1:20,000)
50 metre tape
Camera
Photo Log
Film
Cold Chisel
Flagging Tape
Knife
Baggies
Indelible Marker
Empty Film Vials
Site Record Forms
Notebook
Pencil/pens
Eraser

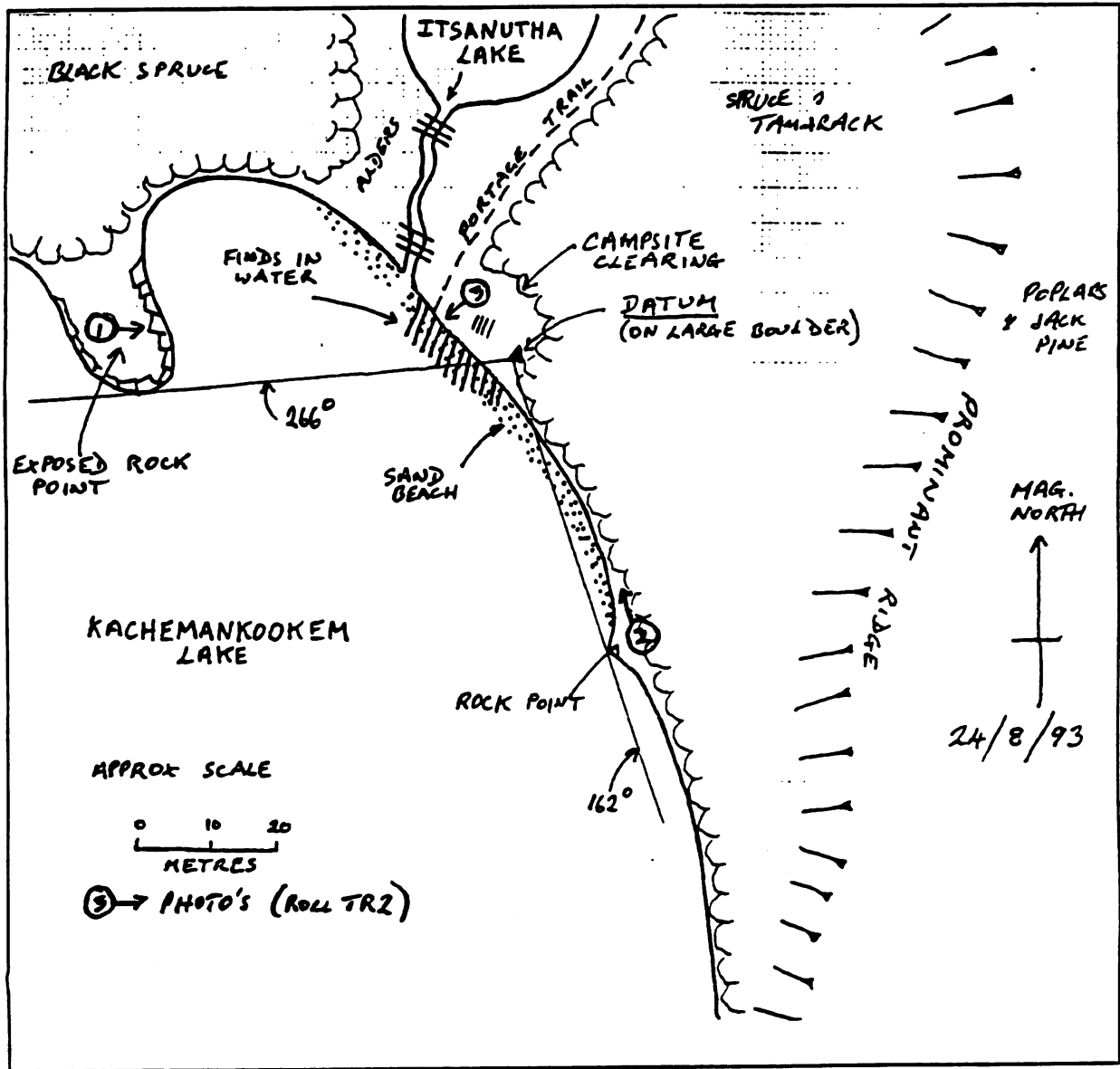
One reality of working in northern Ontario is that just finding a suitable point of reference can be quite an exasperating problem. I have found sites along otherwise featureless stretches of sandy shore where there was nothing obvious to use as a datum. Under these circumstances use your ingenuity. The critical consideration is that other archaeologists following in your footsteps should be able to relocate the site with relative ease. But don't blaze trees or otherwise deface the landscape. This may only draw unnecessary attention to the sites you wish to protect.

Once you have established a suitable datum point, you will need to locate the datum to the rest of the landscape. This can be achieved by sighting your compass onto any convenient and permanent features of the landscape and recording the bearings. If you use two or more sightings, there will be only one spot at which they will intersect. With any luck future researchers will be able to relocate your datum with no difficulty.

The drawing below shows how to identify the general location of the datum, and site area in relation to the surrounding topography. Remember, you should also mark the site location on your 1:50,000 and 1:20,000 topographical maps at the same time.

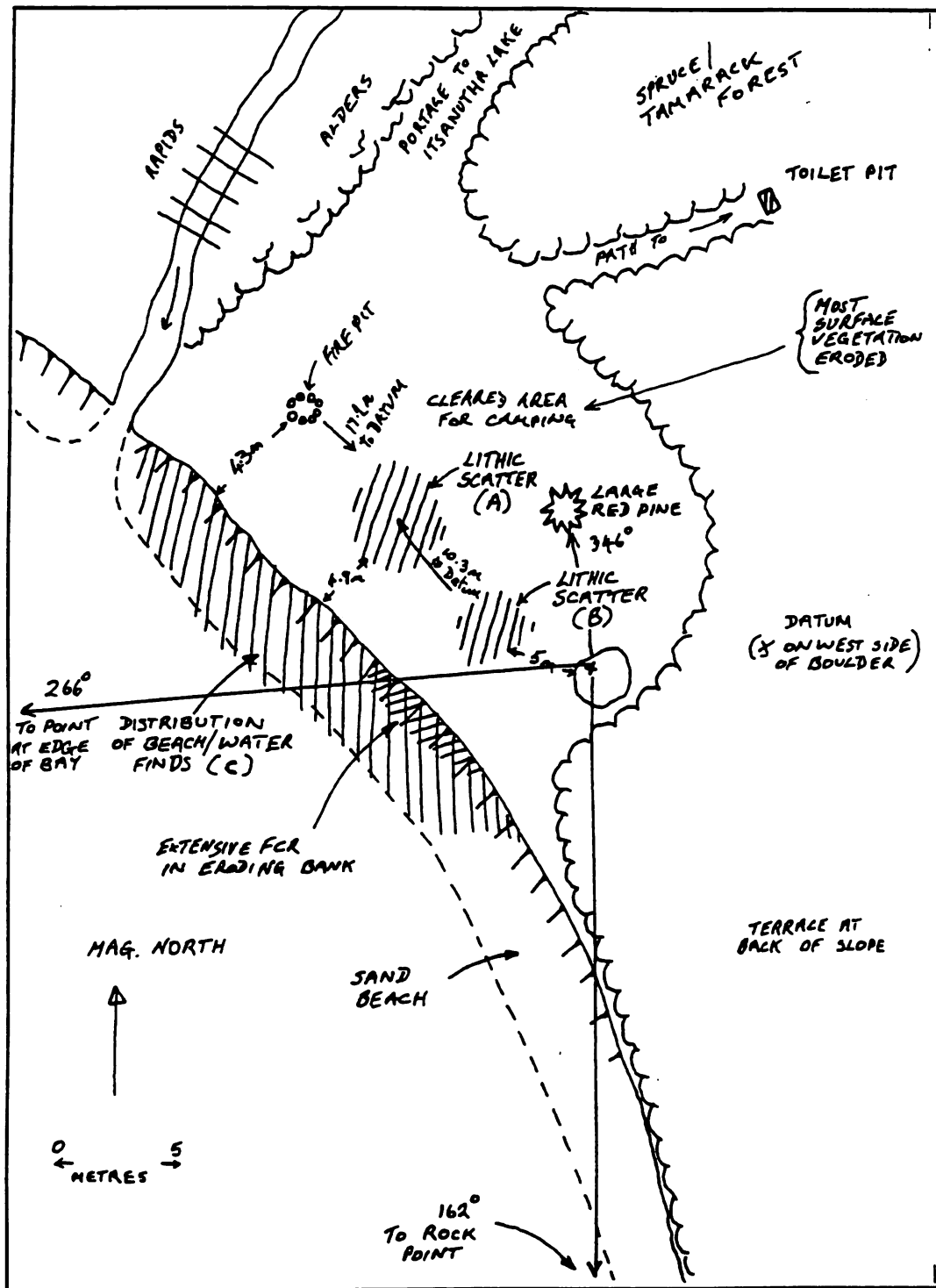


Fixing your datum in space



Sketch plan of "Portage Site", Kachemankookem Lake





Detailed site sketch

## Artifact Cataloguing

An artifact is an information package, consisting of two parts; the object, and its context. The object or artifact is the physical part of this information package. We can examine it, analyze it and investigate it in any number of ways. It is always there for us to refer to and re-examine if need be. The other half of the information package is the artifact's context. This is more easily lost, yet this part of the package conveys much information about the human activities which led to the loss or disposal of the object. It conveys the spacial relationships between this and other artifacts, and it provides meaning to the object itself. Unless we record it in some way, when we remove the artifact from its context we strip it of at least half its value. Cataloguing ensures that the critical locational information becomes a permanent part of the artifact.

Each artifact you recover from your surveys must, therefore, be catalogued. Typically, a catalogue record should contain the following information:

Location - General	e.g.	BbGc-8	
Location - Specific	e.g.	-5E 9N	
Sequential Artifact Number	e.g.		-23

Thus an artifact surface collected from Unit 5E 9N at archaeological site BbGc-8 has been allocated this catalogue number – BbGc-8-5E9N-23. There are two parts to cataloguing; the physical addition of the catalogue number to the artifact, and filling out a catalogue sheet. However, before you can catalogue, the artifacts have to be clean, sorted and organized.

### Basic Sorting

Before starting to clean the artifacts you need to sort them. Without losing track of the specific place (provenience) the artifacts came from, sort them by material type, then further subdivide into appropriate categories. Prehistoric lithics should be separated into various classes of artifact (such as scrapers, projectile points, cores, flakes etc.) then each category can be further subdivided by material of manufacture, type of debitage, etc. e.g.:

#### LITHICS

##### TOOL TYPE

Bifaces  
Points  
Scrapers

##### RAW MATERIAL

Bayport  
Kettle Point  
Onondaga  
Fossil Hill

##### DEBITAGE

Flake Type:  
Primary  
Secondary  
Shatter

Each tool or "formal" artifact should be assigned an individual number. Clusters of tiny flakes and shatter can be assigned a group number. Objects which are too small to catalogue should be placed in a vial with the catalogue number marked on the outside in indelible marker, and on a tag on the inside.

Prehistoric pottery should first be sorted into two piles; one consisting of analyzable sherds, and the other consisting of sherds that are too small, too fragmentary or too eroded to be able to convey much information. These unanalyzable sherdlets can be assigned a single number within each context. Each analyzable sherd (or group of sherds, if found in a cluster) should be allocated a separate number. Body sherds from a single context could be grouped and allocated a single number, however, each decorated sherd should be numbered separately.

Faunal remains from surface sites usually consist of burnt and unburnt bone. As an initial sort, separate the burnt (or calcined) from the unburnt, then further subdivide into analyzable and unanalyzable piles. At this stage you may wish to do some further separations, depending on the nature of the collection. Fish bone may be distinguishable from mammal or bird remains, and, depending on your level of expertise, you may be able to further subdivide the collection into various elements. Each analyzable bone fragment should be allocated a separate number. Groups of burned or unburned bone can each be allocated a group number.

Historic Pottery should be separated into groups based on the ware type (e.g. yellowware, refined white earthenware etc.), by vessel form (e.g. cup, plate, bowl etc) and by decoration (e.g. edged, flow blue, transfer print etc.). Each sherd or group of sherds should receive a separate number.

Glass can be broken down into window or vessel glass. The colour, form and the presence or absence of maker's marks can also be used as basic sorting categories. As with pottery, each sherd (or vessel) or group of sherds should be allocated a separate number in the sequence.

Metals should be sorted by type of metal (e.g. cast iron, iron sheet, brass, copper etc.) and by type of artifact. Nails can be further sorted into wrought, cut or wire.

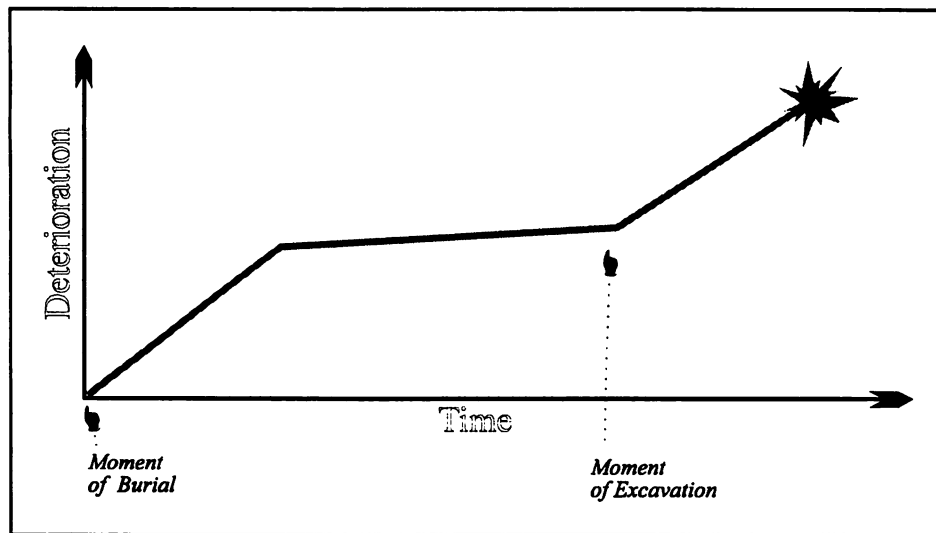
Once the basic sorting is completed, the process of numbering the artifacts and filling in the inventory sheet will proceed quickly.

In the process of sorting you may have identified objects which it would be unwise to wash or clean, and which require special handling care. Without losing the provenience information, separate out those which are too fragile for further treatment. If you have any doubt, leave it out!

## Conservation

When artifacts become buried in the ground they gradually reach a state of equilibrium with their surroundings. At first the rate of deterioration may be fast, but a point of stasis, or equilibrium, will gradually be reached. When we remove an artifact from these relatively stable surroundings we instantly change its environment. New levels of moisture, oxygen, light, temperature and physical shock will all affect the object's rate of deterioration and hasten its demise.

### How a Buried Object Adapts to Its Environment (after Dowman 1970)



Conservation is the specialized care which an artifact can receive to bring it back to a state of equilibrium with its new surroundings. Treatments can be simple or complex, but each treatment is based on an understanding of the physical and chemical properties of the object. The basic principle of conservation is that any treatment should **do no harm** to the artifact, and should be **reversible**.

Archaeological artifacts are a fundamental part of the record of the past. By our actions as archaeologists we should not hasten the demise of these objects of cultural value. If we keep them in a good state of preservation, those who follow in our footsteps will be able to examine and study them for themselves. If we hasten their deterioration, we may not be thanked by future generations, who will have only our paper records to refer to.

As a general rule, if something is wet when it is discovered, keep it wet. If it is dry, allow it to remain dry until such time as a suitable conservation treatment can be arranged.

The following suggestions are provided as a guide only to the care and handling of archaeological materials commonly encountered during field/surface surveys. If you have the slightest doubt whether you should be embarking on a particular action, phone a conservator for advice. Performing an ill considered or inappropriate conservation treatment is worse than doing nothing at all.

### Cleaning

Here are a few basic hints for use with dealing with the kinds of materials commonly found during archaeological surveys. Apply these techniques with caution. Again, if you are unsure, don't clean. We may desire to see "clean" artifacts, but it should not be at the expense of the integrity or research value of the object. Washing artifacts simply to provide a clean surface for cataloguing is not a good enough reason.

Historic Pottery - Most historic pottery can be safely washed in warm water. Use a soft brush to loosen dirt from the surface. Change the water often to eliminate streakiness and to prevent porous bodied ceramics from absorbing dirt.

Prehistoric Pottery - This should **never** be washed. Leave to dry, then gently brush the surface to loosen adhering soil. Delaminating or friable pottery should be handled with extreme care otherwise it will disintegrate. Wrap each piece separately and store in a well padded container. Small sherdllets can be placed in vials. Do not store loose with other artifacts.

Avoid mending. If you feel you absolutely must glue matching sherds back together use **Elmers white glue** (polyvinyl acetate emulsion). This glue is reversible by soaking in water. **Never** use crazy glue, rubber cement, epoxy or any other adhesive, and **never** use tape to hold the pieces together. You may remove the surfaces of the sherd when you peel it off. Instead, fill up a clean container with clean sand. Once you have glued the pieces together (making sure to get the edges of the break properly aligned) balance the artifact by embedding the larger part in the sand, leaving the glue line exposed. Avoid using too much glue otherwise it will run everywhere.

Metals - Objects of metal should be allowed to dry naturally then be lightly brushed free of soil. They should not be washed. Actively rusting objects should be dry stored in a sealed container containing some silica gel (obtainable at craft stores, florists etc.) otherwise they will disintegrate.

Glass - Most glass artifacts are washable. However, if the surface is delaminating (flaking off) do not wash it. Beads should not be washed.

- Bone - Light brushing only. Bone should be **dried slowly** otherwise it will delaminate. The drying rate of wet bone can be slowed by placing it in a baggie or similar sealable plastic bag, which has had a few small holes pricked in it. Monitor its progress regularly.
- Lithics - Most lithics are fairly tough so washing is acceptable. However, recognise that in washing some artifacts you may be removing potentially important information. Worked faces may retain fragments of soil (and possibly blood residues, tissue fragments etc.) in the crevices. Do not remove. If you feel you have to wash them, immerse in warm water and lightly brush with a soft toothbrush. Do not scrub. Lithics are at risk from mechanical damage. Store in such a way as to prevent contact between objects.

### **Starting to Catalogue**

#### **Materials:**

PENS You are going to write quite a lot of information on some very small objects. Fine nibbed pens are a necessity. Tiny mapping pens which can be dipped into an ink bottle are fine, although technical drawing pens with a nib no larger than 0.3mm. are better (albeit expensive). Ultra-fine fibre tipped pens are also quite good.

INK Indelible ink is a must. Although as archaeologists we know that nothing in this world is permanent, we are trying to make the catalogue number a permanent part of the artifact. White ink will show up well on most artifacts, but you will need black for some of the lighter items you are likely to encounter.

CLEAR NAIL POLISH Nail polish acts as a sealant and protective coating. This preserves the number from loss through abrasion, yet is reversible should the need arise.

1. Lay a small streak of nail polish across the surface of the object where you intend to write. This seals the object and provides a smooth surface on which to write. Do not write directly on the artifact. If you make a mistake nail polish can be removed with nail polish remover or acetone. Permanent ink may be more difficult to remove. Leave the nail polish to dry for a few minutes.
2. Write the catalogue number as small as possible on top of the layer of nail polish. It should not be so small as to be illegible, neither should it obscure the whole artifact. Allow the ink to dry.
3. Lay a small streak of nail polish across the catalogue number to seal it. Allow to dry before bagging or boxing the artifacts (it's amazing how chert flakes can clump together unless you let the polish dry completely!).

You may need practice to get to the point where you can write such a large amount of information in such a small space. It is important to get all the information on to the object, yet not totally obscure the artifact in the process. A typical catalogue number should be no larger than:

Cc1c-12 23

Choose where you put the catalogue number with care. On historic and prehistoric ceramics and glass, you can usually write on the inner surface of the sherd. Write on the ventral (usually the flatter) side of chert flakes. Don't write over diagnostic information, such as maker's marks or decoration. Always choose the location which will be the least obtrusive.

There are some objects upon which it is best not to write. Beads should be strung on a fine string (assuming that it/they are stable enough), to which a tag has been attached. Write the catalogue number on the tag. Friable pottery and other fragile objects should have a clearly marked tag inserted in the storage container with them. The exterior of the storage container should also be clearly marked with the catalogue number. The object should never be allowed to become separated from its label. Common sense should prevail.

### The Catalogue Sheet

The Catalogue Sheets contain a written record of all the objects recovered from a site. It is best to fill in the catalogue sheet as you number the artifacts. This way you can ensure that each artifact makes it to the list, and that your sequential numbering stays on track.

How you allocate catalogue numbers will very much depend on the circumstances and nature of your finds. For instance, if you have found a large cluster of chert flakes or pot sherds within a small area, you may not want to give each one a separate number. You may be better off to allocate a single number to the cluster.

You may wish to devise your own catalogue sheets, although the example on the next page is typical. If you are creating your catalogue on the computer, the tables feature of the WordPerfect program is particularly useful.

### CATALOGUE SHEET

Project Name \_\_\_\_\_ Licence No. \_\_\_\_\_ Borden No. \_\_\_\_\_

Cat. No	Description	Provenience	Date

#### Storage

Once the artifacts have been fully documented they will need to be stored. Archaeological collections should not be damaged while in storage. This may seem obvious, but all too often the way in which things have been stored in the past has led to damage and the loss of potential information. Anyone who has examined a bag of prehistoric sherds which have been sitting in a paper bag for any length of time can attest to the detrimental effects of this kind of storage. There is usually as much ceramic dust in the bottom of the bag as there are artifacts. Edge damage to stone tools is a frequent problem with inadequately stored lithic artifacts.

Containers should be rigid and have a well fitting lid. Cardboard or plastic boxes are fine; they will prevent artifacts from getting crushed. Microwave containers of various sizes are ideal. Artifacts should be individually wrapped in tissue paper (not toilet paper or kleenex) and laid on a layer of bubble pack (available at some stationery stores) within the box. Each box should be clearly marked with the site number and provenience of the objects it contains.

Storage conditions are as important as packing. Select somewhere that does not experience great fluctuations in temperature and humidity and where the objects will be safe from accidental damage or deliberate intrusion. Basements are less than ideal since they tend to be damp in summer and dry when the furnace is on during the winter.

\_\_\_\_\_



## SITE REGISTRATION

### What is an Archaeological Site?

**site** *n* [ME, place, position]: **1a:** the spacial location of an actual or planned structure or set of structures, **b:** a space or ground occupied or to be occupied by a building **2:** the place, scene or point of something.

Websters New Collegiate Dictionary

There has been much discussion as to what constitutes a site and even whether the concept of "site" is a valid way of approaching archaeological evidence. For the purposes of archaeological survey and recording in Ontario we are well served to look at the origins and definitions of the word we use. Behind each of the definitions cited above one can define a sense of purpose; a sense that some planning or decision has occurred in the establishment of a site; that it is the scene or point of something and not just the location of a random or accidental occurrence. In archaeological terms this means that for an archaeological discovery to warrant identification as a site, usually some evidence of intention should be present. Remembering that, often, without excavation it is not possible to establish whether or not there is intent.

The nature, frequency and size of archaeological sites varies vastly from one part of the province to another. It is necessary to use a certain amount of common sense and judgement in determining what constitutes a site and what does not. Two critical words to remember are **context** and **association**. If you suspect that your discovery has either or both of these, you should register it as an archaeological site.

So how does this translate into practical terms? Clearly, an isolated find should not be considered a site without good reason. Imagine that you have found a chert flake on the surface of a ploughed field. You carefully examine the surrounding area but find no other archaeological evidence; there are no chert flakes, no fire-cracked rock and no obvious soil stains in the vicinity of the find. This discovery has no context or associations; there is no evidence that it was intended to be there; it probably does not constitute a site. Therefore, this find does not need to be registered as a site but does need to be mentioned in your licence report. You will probably want to mention this find in the text of your report as well as in an appendix of all unregistered finds at the back of your document. In this way no data is lost and it is always available for future research purposes.

On the other hand, imagine you are crossing the crest of a low rise and you notice that a groundhog has been tunnelling into the sandy soil. On his spoil heap you find that he has kicked out a birdstone. This artifact had clearly been buried (suggesting intention) until disinterred by the groundhog and the sandy rise on which it was discovered may have been selected as a burial site. Although the artifact is isolated, i.e. has no associations, it has been found in a suggestive context. This find should be registered as an archaeological site. On the Borden form (i.e. site registration form), section 27, you write "findspot" for the site type.

As a general rule of thumb for field surveys, if you find less than six artifacts scattered over a wide area (i.e. across a whole field) they should not be registered as a site, but should be noted in your report. If the same number of artifacts is found concentrated in a much smaller area then they should be registered as a site.

In northern Ontario the same application of common sense and observation is necessary. Two or three chert flakes found along a two hundred metre stretch of sandy beach should not be registered as a site. Conversely, the same two or three flakes, found within twenty metres of each another, in association with some fire cracked rock would justify registration. All pictograph sites, whether consisting of one, or many morphs, should be registered.

Any questions about what is, or is not, a site can be directed to the Archaeological Data Coordinator at the MCTR at (416) 314-7161.

### **Other Archaeological Discoveries**

Archaeological discoveries which you are not going to register as archaeological sites should still be documented. The best way to do this is to create an appendix at the back of your licence report and describe them as if they were archaeological sites. In other words, provide full details of the location, nature and extent of the recoveries. This information may prove extremely valuable to other archaeologists in the future.

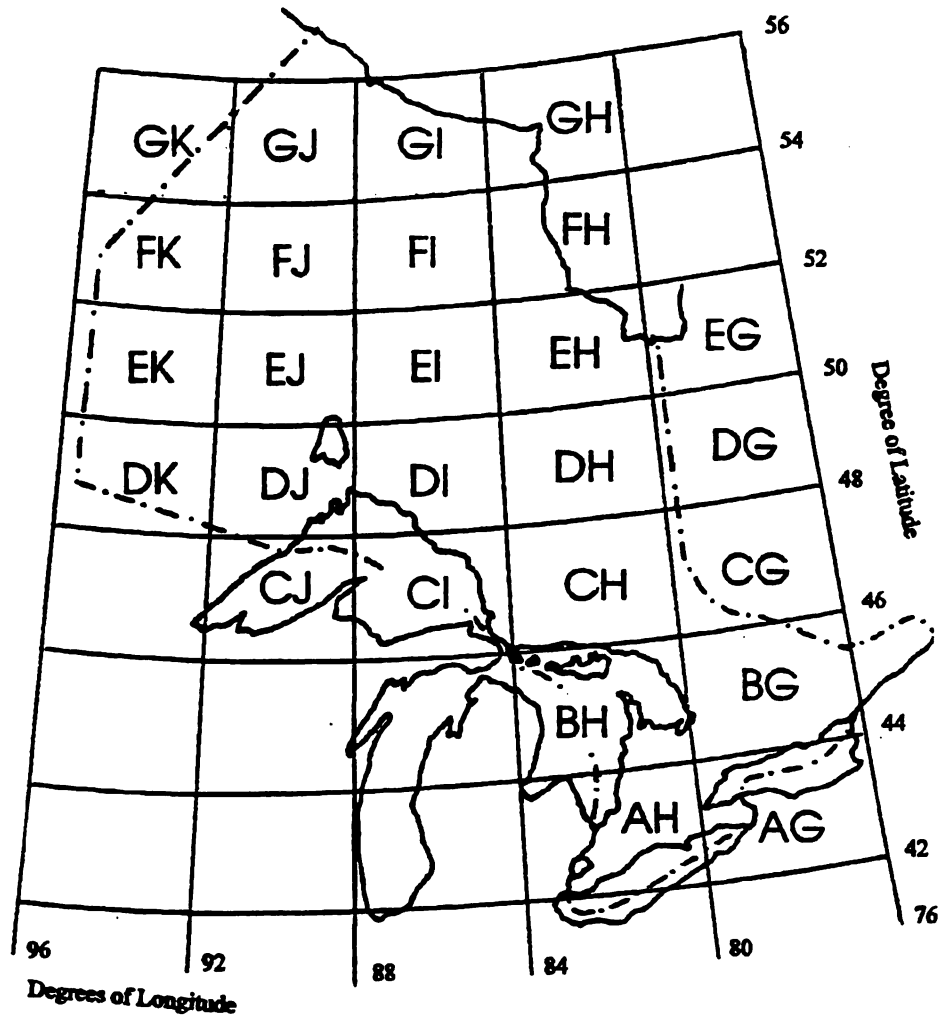
### **The Borden System**

In 1952 Dr. Charles Borden published a system for registering archaeological sites in Canada. It soon became accepted, and now forms the basis for the registration of all archaeological sites throughout the country.

The "Borden" system, is based on the use of MAJOR UNITS defined by lines of latitude and longitude. Each Major Unit is two degrees of latitude high (i.e. north to south), by four degrees of longitude long (i.e. east to west). Ontario is covered by 28 blocks.

Each Major Unit is further subdivided into 288 BASIC UNITS, each one of which represents 10' of latitude by 10' of longitude (roughly 18 kilometres N-S, by 12 kilometres E-W).

Each Major Unit has been allocated a two letter designation. These are always expressed in UPPER CASE letters. Each Basic Unit has also been allocated a two letter designation. These are always expressed in lower case letters. Together the Major and Basic Units comprise a Borden Block.



Major Units

In order to register an archaeological site you will need to work out which Major and Basic unit your site occurs within. This is explained on page 45 in "Finding The Borden Square". An article by Charles Garrad in *Ontario Archaeology* No. 10, 1967 also gives a detailed description of the Borden system as it applies to Ontario. It is the source of the summary presented here.

## **Registering a Site**

Archaeological Site Record (Borden) forms have a bit of an image problem. I have yet to meet anyone who positively relishes sitting down to fill out a pile of these forms. But the Archaeological Site Record forms provide a summary of every archaeological site which has been discovered or examined by licensed archaeologists. They are our data base - our collective record of the archaeological resources of Ontario.

The data base is the source Ministry personnel use to examine the potential impacts of a new subdivision development. Consultants rely on it to determine the archaeological potential of a new area for a client. Whenever a researcher wants to plot the distributions of a particular type of site or artifact, they refer to the data base. It is used in a variety of land use planning decisions and as a primary tool for research. It is the corner stone of Ontario archaeology. Few people would suggest that filling out a Borden form is fun, but it is valuable. Two forms are in use in Ontario:

### **The Archaeological Site Record form.**

This form is used for recording newly discovered archaeological sites, or for recording sites which may have been known for a while - yet which have not been previously documented and physically verified by a licensed archaeologist. A guide to filling in this form is presented below.

### **The Archaeological Site Update form.**

This form is used whenever you have acquired additional information about a site which has already been recorded. It is also used if you need to make corrections or revisions to the original information. Apart from some minor differences it is similar to the site record form.

## **Completing the Archaeological Site Record (Borden) Form**

Each form contains thirty-four areas for which information is requested. You may not be able to provide information in each of those categories. Don't despair. If you cannot answer a particular question, leave it blank. **No information is better than incorrect information.**

## SITE IDENTIFICATION

### 1. The Borden number

This is a national system of alphanumeric codes which are used to record archaeological sites across Canada (see above). Each Borden number consists of four letters followed by a number (for example; CdIc-2 or AbHo-29). The four letters define an area which is ten minutes of latitude by ten minutes of longitude. Each site within the block is allocated a number. Thus if your newly discovered site is the twenty-ninth site to have been recorded in Block AbHo, the site will be registered as AbHo-29.

You are expected to work out which Borden block your site lies in. If you have pinpointed the location of your site on a 1:50,000 topographical map this is a simple operation.

#### FINDING THE BORDEN SQUARE

Read off the latitude and longitude of your site from the topographical (1:50,000 scale) map (how to do this is explained on page 50).

You should end up with a reading something like this:

Lat. 44 12 31

Long. 77 48 27

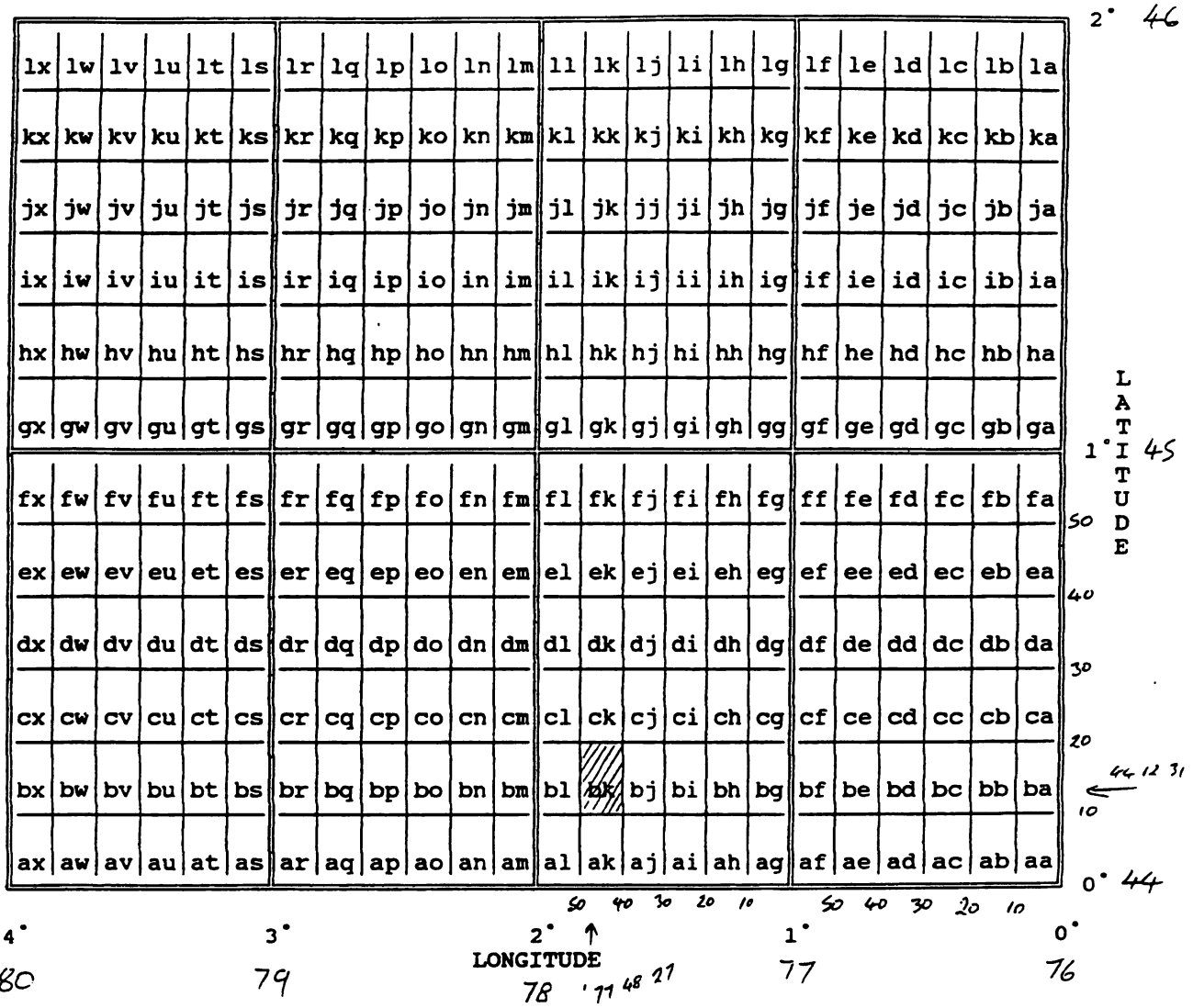
The first numbers (i.e. 44 and 77) will tell you which MAJOR UNIT the site lies within. Turn to the map of major units on page 43. Since your latitude is between 44 and 46, and your longitude is between 76 and 80, your site lies within Unit BG.

At this point I usually pencil in the degree values of the MAJOR UNIT right on a plan of the BASIC UNIT block (see next page). Each subdivision of the unit represents 10'. I pencil these in too. Now it is an easy job to match your latitude and longitude readings with the Basic Unit plan. In this instance our site lies within block BbGk.

You can now fill section 1. The two upper case letters (i.e. B and G) go in the left hand space, the lower case (i.e. b and k) go in the right.

### 2. Sequential Number

Once you have figured out the Borden Block phone the Data Coordinator at the Ministry to be given the Borden Number. **Do not** allocate a number yourself.



**Basic Unit**

**3. Researchers Site Number**

Did you allocate a number to the site in the field? Record it here.

**4. Preferred Name**

Name the site. A landowners name or geographical identifier is often used. If the site already has a name, do not change it.

---

## 5. Other Names/Identifiers.

If the site is also known by another name, record it here.

## SITE LOCATION

Virtually all the information necessary to complete this section is available from the 1:50,000 map sheet. An example is given on the following page.

## 6. Province

This one is easy, it's pre-printed.

## 7. County or District

The County or District within which you are working will be marked somewhere on the topographical map. In northern Ontario, where whole 1:50,000 sheets may be contained within a single jurisdiction, this information is provided bottom centre between the map name and the scales.

## 8. Township

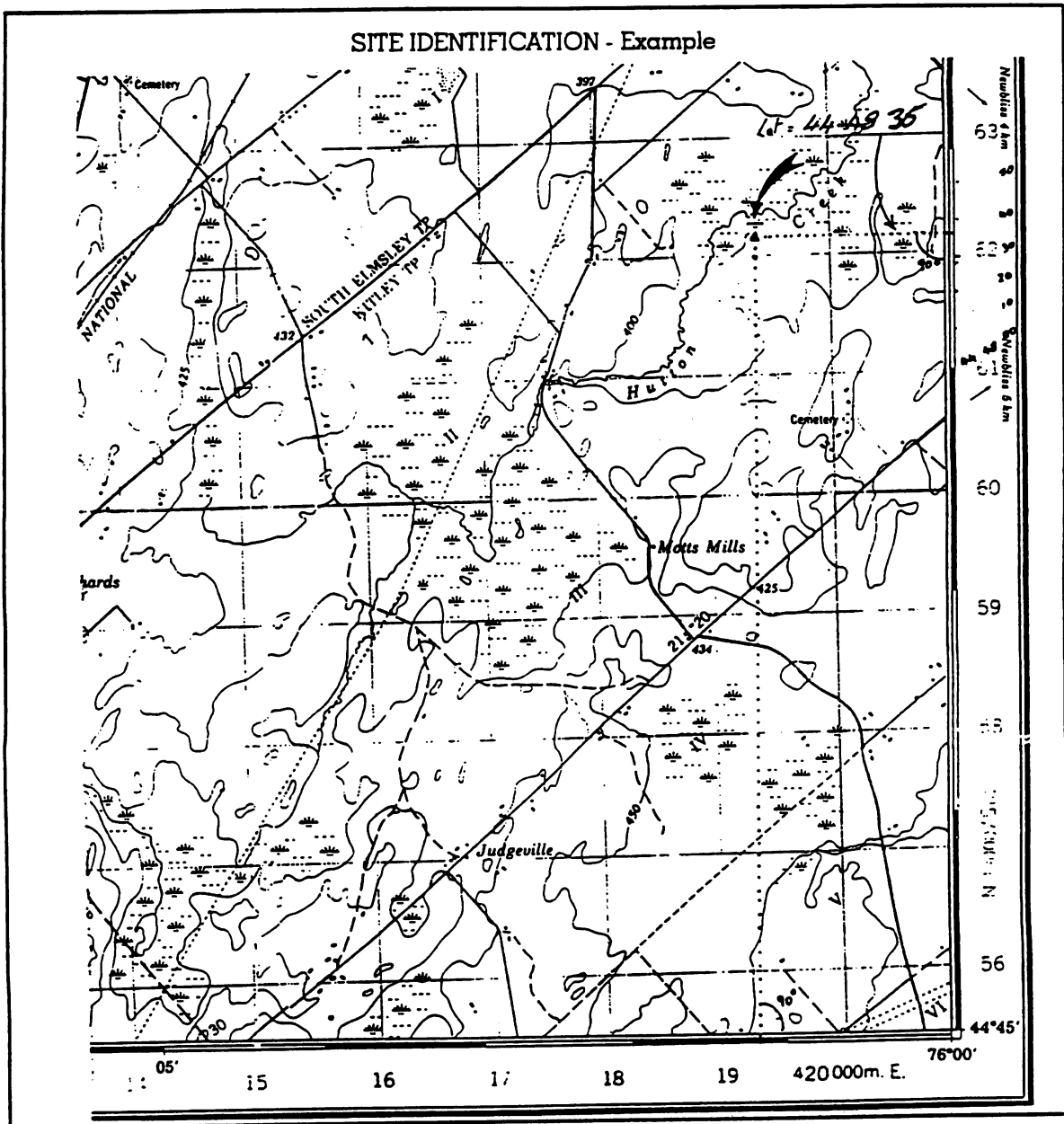
The township boundaries are indicated by broad grey shaded lines. The township name is present in UPPER CASE letters adjacent to the boundary. Some areas of the north are not divided into townships. In that case leave this blank or indicate that the area is "unorganized".

## 9. Concession and Lot

Concession numbers are indicated in ROMAN NUMERALS (but please transpose them to regular numbers on the Borden Form). Concession lines are generally not marked, so if you are in any doubt refer to a larger scale map on which they are clearly marked. Lot numbers are not indicated on 1:50,000 topographical sheets. You will have to refer to a more detailed plan for this information. This category is redundant for most of northern Ontario.

## 10. Municipal Plan Ref. No.

The Municipal Plan Reference No. only applies if the survey is being conducted as part of an official plan review.



**11. Street Address**

If the site also has a street address, enter it here. This applies most to urban sites.

**12. Elevation**

The approximate elevation can be gained by following the contour closest to the site until you hit a number. If the territory surrounding your site is relatively flat, you may have to do some extrapolation. Check the bottom panel of the map to see whether your topographical sheet has contours in feet or metres. Tick the appropriate box.



### 13. NTS Map

This information is in the lower right hand corner of your topographical map. It should look something like:

42 D/9  
Edition 2

### 14. Copy of Map Segment

Photocopy the appropriate segment of the 1:50,000 topographical map and clearly mark on the copy the location of the site. Make sure you write the NTS map number (see 13, above) on the photocopy. **Don't forget to include photocopies of the topographical map when you submit your Borden form.**

### 15. Sketch Map of Site

Include a sketch plan of the site. Why not use the one you will include in your report, and kill two birds with one stone?

### 16. Military Grid Reference

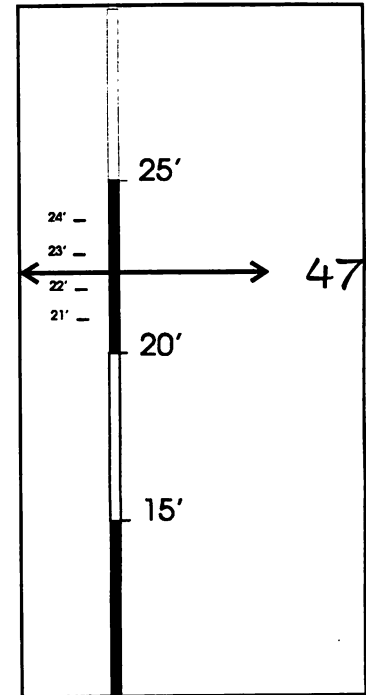
The "eastings" and "northings" – the blue lines on the map – will enable you to calculate the military grid reference. Most of the information you need to do this is contained in the **blue panel** in the right hand margin of all topographical maps. They will allow you to calculate a six figure military grid reference to the nearest 100 metres. However, in areas where sites are particularly numerous, an eight figure reference (to the nearest 10 metres) may be necessary (you'll need a very sharp pencil).

### 17. Latitude and Longitude

Of all the parts of the Borden form, this is probably the one people like least. Armed with a large 90° set-square, or a straight edge which is long enough to cross the whole map, it's easy. Reference points for latitude and longitude are found around the periphery of the 1:50,000 sheet as black numbers. Most maps have a black and white scale surrounding them. Each segment represents one minute (').

**Latitude.** These are the imaginary horizontal lines which gird the earth and position us relative to the north and south poles. They are divided into degrees (°) minutes (') and seconds ("). There are sixty seconds in a minute (no kidding!) and sixty minutes in a degree.

- \* Align your set square with the right margin of the map and slide it up or down until the horizontal edge aligns with your site. Make a small pencil mark next to the edge of the map.
- \* Reading up from the bottom right hand corner, mark down the degrees and minutes of latitude. The numbers are only marked for every five minutes, so you will have to count upwards from the last numbered scale segment. Do not count the segment your pencil mark crosses. Since the whole of Ontario lies between  $41^{\circ}00'$  Lat. and  $57^{\circ}00'$  Lat., if you have anything larger or smaller than these you are reading the wrong scale. Your result so far will probably read something like this :  $43^{\circ}22'$ .
- \* The last stage is to divide the segment containing your pencil mark into 6 equal parts. These will represent 10" (second) blocks. Further subdivide the block containing your pencil mark into ten equal parts. This will give you your reading in seconds. Append this to your result. It should look something like this:  $43^{\circ}22'47''$ .



**Longitude.** These are the imaginary lines which extend around the world from the north to south poles. The prime meridian ( $0^{\circ}$ ) has been set at Greenwich, near London, England. The degrees of longitude become progressively larger as one moves west of Greenwich. Ontario lies between  $74^{\circ}00'$  and  $96^{\circ}00'$  degrees west of the prime meridian.

To determine your site's longitude use exactly the same process as you used to determine the latitude, only this time, read off along the scale along the bottom edge of the map.

## 18. Location and Access

Describe where the site is, and the best (easiest) way to get to the site. This may not be the same as the way you got there. Its no use saying, "...take MNR Turbo-Beaver from Geraldton Base to Esnagami Lake." Someone following in your footsteps may not have access to a float plane. Be as specific as you can by supplying distances and detailed instructions. "On small ridge 125 metres west of large barn" is more useful than, "in middle of field behind barn". Imagine yourself trying to relocate the site if you had never been there before. Would your description be helpful?

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## SITE INVESTIGATION

### **19. Researcher**

Fill in the name of the person who did the work. If this is not the same as the licence holder provide the latter's name in brackets.

### **20. Licence Number**

The licence number under which you did the work.

### **21. Date**

The date you began the current work at the site.

### **22. Informant(s), Address(es), Nature of Information**

If you acquired information about the site from others, enter it here. For instance, if a farmer or perhaps a conservation officer provided you with the initial lead, record that information. Indicate the nature of the information and the address(es) of any sources.

### **23. Activities Conducted at Site**

Indicate exactly what you did at the site. This might be "surface survey - 5 metre interval", "controlled surface collection, pace and compass mapping", or "shoreline collection of eroding artifacts and sketch map". Be specific and relate this information to the sketch map that you will include with the form.

### **24. Description of Environment**

How is the site situated? Is it on a terrace next to a lake shore? On a undistinguished clay plain? How does it relate to creeks, springs and rivers. Is it situated on level or sloping ground? Does the location provide a view of the surrounding terrain or is it nestled into the local topography.

What are soils like? Are the soils over the site the same as those surrounding it? Can you determine any distinctions in soil colour, texture or moisture?

The description of the environment provides the context of the site, and may reveal valuable data of site locational characteristics to other researchers. Be concise.

**25. Nature, Density and Extent of Cultural Remains.**

A **brief** written description of the site is required here.  
 A suitable description might read:

"Fire cracked rock and lithic debris were found scattered over an area of approximately 30 by 50 metres along the crest of a knoll. A dark soil stain was present at the western end of the concentration of finds (see sketch). Fire cracked rock was more prevalent in this area."

or "Twenty three separate morphs were identified across the south facing vertical bedrock exposure, which is approximately 23 metres long and rises directly from deep water for 3 metres. The morphs are clustered into two groups; one lying to the east of a large quartz vein, and one lying to the west (see field sketch). All morphs lie within ten metres of the quartz vein. No morphs were found on the numerous nearby boulders and fractured outcrops."

**26. Dates / Basis**

If you have a firm date for the site, provide it here. *It is absolutely necessary to provide an indication of your reasons for suggesting the date.* Your information may be based on a radio-carbon date (absolute) or on the presence of a number of key artifacts (relative). You may know the age of a historic site to the decade from historical (archival) documents. Other researchers will need to know the basis for your conclusions. Give the method of determining the date in brackets, for example 1845-55 (archival documents) or 1485 ±85 (C<sup>14</sup> + Lab. Number). If you do not have a firm date, write "undetermined".

**27. Site Function / Type**

The function of some archaeological sites is fairly obvious (prehistoric quarries and historic homesteads, for instance) but in many instances the use and nature of a particular site can only be known through excavation. If you can support your assessment of the site's function with hard evidence, go ahead. If not, "undetermined" is the best response. Some examples of site types are presented below:

findspot	campsite	habitation	fort	station, fishing
workshop rock art	sacred	quarry	post	station, lithic,
mine, gold, etc.	killsite	homestead	portage	mission, Jesuit etc.
burial	rockshelter	cave		mill, lumber, grain
village	cemetery	factory	wreck	

## 28. Site Structure

If the site exhibits obvious relationships to the local terrain identify them here. For instance, if the site is adjacent to unnavigable rapids, or on the crest of a prominent hill which affords clear views of the whole county, it would be worth noting. Details of structure within the site are more difficult to determine and may not be obvious through surface survey. However, if you have noted that concentrations of artifacts are associated with areas of darker soil, or that there are changes in the nature of the artifacts from one area of the site to another, these observations are worth noting here.

## 29. Affinities

If you are fairly sure of the site's cultural affinities, state them in this section, but be prepared to support your claim with the evidence. Site affinities include "prehistoric", "Euro-Canadian" etc. If you are unsure it is best to enter "undetermined".

## DOCUMENTATION

### 30. Artifact Collections

Location - the address at which any collections of artifacts from the site are housed. If you are keeping them at your house for further study, enter your own address. If you subsequently hand them over to an institution for long term curation, you should complete a site update form adding that information. If you examined other collections (e.g. a farmer's) and verified the location, note it here.

Nature - briefly summarize the collection(s), e.g.: 10 prehist. ceramics, 8 flakes, etc.

### 31. Pictorial Records

Location - as above

Nature - Are they slides, colour prints or black and white prints? How many are there? Describe whether they are general site shots or artifact shots. Be brief.

### 32. Field Notes

Location - as above

Nature - Describe what you have, e.g. 1 page handwritten notes, 1 field record form with sketch.

### 33. Unpublished Material

Location - Unless you have made other arrangements your licence report is an unpublished report. Provide the **full** title of the report. Present it as a bibliographic citation, such as:

M. Olsen,  
1992 "Archaeological Surveys in Leeds County, Ontario under Licence Number 92-48."  
Licence Report on file, Archaeological Licence Office, Ministry of Culture, Tourism  
and Recreation, Toronto.

Indicate the location of any other unpublished material either in your possession or elsewhere that pertains to this site.

Nature - This could include licence reports and articles which you have prepared but not submitted for publication. Provide full bibliographic details for each item.

### 34. Published Material

Location/Nature - Forget about the divisions on the form in this section. Just provide a **full** bibliographic citation (author, date, title and where published) of any article, report or book which describes the site or uses its data in any significant way.

### Comments

Use this section for any observations which have not seemed appropriate elsewhere in the form. If the site is threatened in any way, or if there are any special instructions regarding access to the property, record them here.

### The Archaeological Site Update Form

A site update form should be completed each time you visit a previously recorded site. These forms are an important source of information which allow researchers to track the condition and activities that are occurring or have occurred at a site.

There are two important things to remember whenever you fill out a site update form. Describe in detail whatever archaeological work you conducted at the site - even if you only did a brief walk over. Secondly, describe the conditions you encountered. Was the site freshly deep ploughed? Was there any evidence of unlicensed archaeological activity? Had the site been removed by a gravel operation?

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## REPORT WRITING

The purpose of writing an archaeological report is to communicate the results of your work to other people. Whether it is an annual licence report, a major analytical thesis or a description of complex excavations, the same rules apply. Your report should be clear, concise and free from jargon.

Producing an archaeological licence report can be intimidating, especially if it is your first. If you treat the report as a number of small, related parts, and gradually build it, it soon becomes manageable.

There are many ways to organize an archaeological report. There is no one right way. Scarlett Janusas provided a comprehensive and logical approach to report writing in the September/October 1990 issue of *Arch Notes*, the newsletter of the Ontario Archaeological Society, which is well worth examining. It is similar in many ways to the format presented below.

### STRUCTURE OF A LICENCE REPORT

#### Title Page

Your title page should include the project title, your name and address, the date when you completed the report, and your archaeological licence number. How you organize that information around cover drawings etc., is up to you.

#### Table of Contents

All major and minor headings used throughout the report should be listed in order, according to the page number upon which they appear. It should also include a list of all figures, plates and tables.

#### Acknowledgements

Here is your opportunity to give credit to the people who helped you throughout the project, whether they be conscientious field hands, indulgent spouses, archaeologists or specialists. It is the ideal place to thank the landowners and farmers who gave you access to their property. All too often landowners give permission for fieldwork to occur on their property, watch with interest as the work proceeds, let you examine their own collections, then never hear another word about it. Feed their interest! Share a copy of your report with them; its good PR.

## Summary

A summary statement tells a potential reader where you worked and, at the most basic level, what you discovered.

It might read something like this:

"During August and September of 1993 an archaeological survey of parts of Norfolk Township in the Regional Municipality of Haldimand-Norfolk was completed under the direction of Ms. Amabel Lockport. Approximately 65% of the township was surveyed. Although evidence of historical settlement of the area during the nineteenth century was abundant, no prehistoric sites were identified. On the basis of this evidence it is hypothesised that this section of Ontario was not a significant focus of prehistoric settlement."

It allows the reader to decide whether the report contains information of general interest, or specific research value. Sometimes this section is referred to as an executive summary or an abstract.

## Introduction

The introduction is where you outline the reasons for the project and its structure and organization. You should include a general description of the research area, what you hoped to achieve, and what you achieved. You should indicate how long you spent on the project and how many people were involved. If what you did differed significantly from what you said you would do in your licence application, explain those changes.

Include maps showing the general and specific locations of your study area/site.

## Background Research

Thorough background research is an essential stage in any archaeological project.

The soils, drainage and topography of the study area has influenced the patterns of human settlement and use of the region. This is the section of the report where you demonstrate to your readers that you have a solid grasp of the environment within which your site or study area is situated. You should also include relevant historical and archaeological data available so that you can evaluate and discuss your new findings in the context of what was known prior to your work.



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## Methodology

Describe what you did. If your project involved walking fields and the surface survey of agricultural lands, describe what transect intervals you used. Be honest! If you just looked along the river banks and on the knolls, report it. Describe how you recorded the finds or sites.

If you used test pits, describe their spacing, depth and the screen mesh used. A simple plan showing which techniques were used where can save a lot of convoluted description.

If there were limitations and shortcomings in your work, describe them. You may have had to revise your plans in response to the conditions you encountered in the field. These things happen - but it is necessary to let others know.

## Results

This is the most intimidating section to write. You have a large body of information on sketch maps, in bags and boxes and in your field notes, which you need blend into an intelligible package. Again, break it into logical chunks and deal with them one at a time.

Let us assume that you have been conducting archaeological surveys near your home. Despite your best intentions, your survey strategy has been governed by when and where you could get permission for access. The work was conducted over a series of weekends and evenings, as your work and family circumstances allowed.

During the field season you collected information from numerous sites - some of which you discovered during the surveys, some of which were known and previously reported sites which you monitored. You also examined some collections and acquired site leads which you were unable to verify in the field. Faced with a challenge like this, create three sub-headings:

1. Sites Discovered During the Survey
2. Previously Recorded Sites
3. Archaeological Collections and Site Leads

Each site should then be described in full, under the appropriate heading.

At the beginning of each site description you should indicate the Borden number, site name and its location (1:50,000 sheet number and grid reference). It might look something like this:

### ChHp-2 Mississagi Lake Site

<b>Site Location</b>	(41 0/4 756 321)
<b>Site Type</b>	Logging Camp / Late Woodland/Contact
<b>Site Size</b>	100 m. x 45 m. (or ha.)
<b>Photographs</b>	91-054-TR3 13-17

#### Description

Next you need to provide a detailed description of the site location and its environment. It will not be very useful to write, "The site lies in the middle of farmer Bob Cajun's best corn field, between the big oak tree and the snake fence." Twenty years from now Bob will be fertilizing the roses in the grounds of St. James', the oak tree will have been burned for firewood and the fence will have been torn down.

A site description which gives a more specific location will be of greater value to future researchers. For example, "The site lies on rising ground, close to the centre of a small field in the north portion of the west half of Lot 20, Concession 8, Melinofsky TWP. It lies 180 metres south of the eighth concession road, and approximately 230 metres west of the lot line which separates Lots 19 and 20 (Figure \*)."

Your map will show the relationship of the site to lot lines, farm buildings, roads and rivers, as well as to more transitory features of the landscape such as oak trees and fence lines.

Describe the current conditions surrounding the site. If the field lies next to a new subdivision, and you think this field is going to be developed next, point it out.

Once your description of the location of the site is complete, you need to describe the circumstances of your discoveries. Did farmer Cajun tell you about the site? Had a groundhog thrown up some artifacts around the mouth of his burrow? Were you field walking, or test pitting? What were the general circumstances surrounding your examination of the site, and how did you proceed?

Once the site description is complete, it is time for the artifacts. Clearly it is not necessary to describe, in minute detail, every chert flake or refined white earthenware sherd. Archaeological materials should be grouped and presented so that the maximum information is conveyed to the reader. Strive for clarity. Tables are particularly useful for presenting data. As long as they are not too unwieldy, they can be inset into the body of the text (especially if you are using a word processing program such as WordPerfect).

For example:

**TABLE XVII. Artifacts from CgHp-4**

<u>Provenience</u>	<u>Material</u>	<u>Description</u>	<u>Number</u>
Test Pit 1	Jasper	Secondary flake	1
	Jasper	shatter fragments	4
Test Pit 4	Jasper	Secondary Flake	1
Test Pit 8	HBL Chert	Secondary Flake	1
Test Pit 10	HBL Chert	Secondary flake	1
Test Pit 11	Unid. burnt chert	Secondary flake	1
<b>TOTAL</b>			<b>9</b>

Diagnostic artifacts, or objects of particular beauty or interest should be illustrated. Integrate them into the text where they make the most sense. Such objects should also be described in full, with due reference to comparable or similar examples from other archaeological sites.

## Analysis

This is where you present the reasoning and evidence which has led you to assign the site to a particular culture, period or phase. Don't jump to hasty conclusions. The most readily identifiable artifact may not necessarily define the site. Weigh all the evidence.

Many field surveys fail to turn up diagnostic artifacts which can help you determine the site's age or cultural affiliation. It is no reflection on your skill or knowledge to admit that the site can only be categorized as "unidentified prehistoric". There are thousands of sites registered like this in the provincial archaeological data base. On the other hand, as long as you present the evidence to support your interpretations, you should feel free to come to whatever conclusions you like. Others may disagree with you, that is their prerogative.

Provide any insights you may have into why that particular location was singled out for past human occupation. As far as possible, give some indication of the site's significance and future research potential. For instance, if it is the only known eighteenth century site in the township, it would be well to note it. If differences in soil colour or texture can be seen across the field surface, and this is where the majority of artifacts were found, point that out.

Compare your findings with those of other researchers. Don't restrict yourself to the immediate area, but range widely through the archaeological literature.

## Discussion

Once the detailed description(s) is completed you may want to embark on a discussion. This is particularly important if your findings will have a significant impact on the way in which the archaeology of the region or period had previously been interpreted, or you have a new theory or interpretation to espouse.

Our collective understanding of the human history and prehistory of Ontario will only deepen if researchers have the courage to present their ideas to their colleagues. It is particularly important that these new ideas and insights be clearly presented, and well supported by the available physical evidence.

## Bibliography (references cited)

As you prepared your report you will have no doubt referred to publications and reports of others. Provide a notation in the text at the appropriate place, then provide the full citation in the bibliography.

Text example: Fluted points, such as the example recovered from the Frere Site AbCd-12 are a distinctive tool form characteristic of the Early Paleo-Indian period (Ellis and Deller 1990:41).

Reference: Ellis, Chris J. and D. Brian Deller,  
in bibliography 1990 Paleo-Indians in *The Archaeology of Southern Ontario to A.D. 1650*.  
(edited by C.J. Ellis and N. Ferris), pp. 37-64. Occasional Publication No.  
5, London Chapter, The Ontario Archaeological Society.

## Appendices

Appendices are a useful way of including anything too bulky to insert in the body of the report. The catalogue of artifacts and photographic log should be included as appendices. Any written agreements you established with landowners can be also be added here. If you have had specialist reports prepared (such as faunal identifications, conservation treatment reports etc), include these as appendices.

An appendix is a good place to record any isolated, undiagnostic finds you have made during your fieldwork. The Archaeological Data Coordinator would prefer them to be recorded in this way. If, after additional survey they turn out to be archaeological sites, then they can be assigned a Borden number.

To fulfil the legal conditions attached to your licence you are required to provide the following information:

**YOUR LEGAL OBLIGATIONS UNDER SUBSECTION 65(1)  
of the Ontario Heritage Act**

1. Licence No.
2. Name and Address of Licensee.
3. Details of any departure from the information provided in the application for the licence.
4. Statement of the objectives of the project.
5. Description of the environment of the site(s) where the work took place, including land forms, drainage, vegetation and any natural processes or human activities which are affecting or have affected the site(s).
6. Description of field and laboratory activities carried out and observations made, giving the duration of the work and reporting both positive and negative results.
7. Description of observed cultural remains and a discussion of inferences regarding age, site function, site type, site structure and cultural affinities.
8. The results of the project with reference to the reasons for the project that were given in the application for the licence.
9. Recommendations or plans for follow up work.
10. Plans for the disposition (temporary and permanent) and further study of objects and records.
11. A statement that the licensee received permission from the owner of every property on which work authorized in the licence took place, to enter the land and carry out the work.
12. A statement or other evidence that all archaeological objects recovered during the work were removed with the permission of the owner of the land on or in which they were found, specifying any terms and conditions on which such permission was given.
13. A catalogue in the format specified in the application for the licence, of all objects recovered under the authority of the licence, that summarizes the number and nature of the objects and that identifies individually each object or group of substantially identical objects.
14. Maps of the general area and of specific sites showing activities carried out and locations of observed cultural remains, a representative series of detailed plans and profiles, a representative series of site photographs, and a representative series of artifact drawings and photographs.

By following the format provided above you will satisfy each of these requirements.

The preparation of an archaeological licence report can be time consuming, demanding and even frustrating. It can also be a great pleasure. In your fieldwork you have been examining and collecting artifacts which are a legacy left (albeit accidentally) by our forebears. Think of your reports as a legacy you can provide to future generations of people for whom the past holds the same degree of fascination as it does for you.

And, after you've done all that, maybe you should think about submitting a summary of your report to The Ontario Heritage Foundation for their yearly publication *Annual Archaeological Report, Ontario* and/or to the Ontario Archaeological Society for their provincial newsletter *Arch Notes*. This way your work and research becomes immediately known and available to the archaeological community.

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## GUIDE TO ARTIFACT IDENTIFICATION

### Prehistoric Projectile Points

Any examination of the archaeological literature will reveal that numerous point types have been identified in Ontario, and many types identified elsewhere have been found within the province. So far, no one has published a comprehensive summary similar to William Ritchie's study of New York projectile point types, or Noel Justice's comprehensive gazetteer of point types from the midwest and eastern states (see Reading List for titles). The point type descriptions published in *KEWA* (newsletter of the London Chapter of the Ontario Archaeological Society) when taken together come pretty close, although they do not deal with northern Ontario types.

The following sample of point types relies heavily on the information already published in *KEWA* and in Ellis & Ferris (eds.) *The Archaeology of Southern Ontario to A.D. 1650*, with the addition of a few examples of projectile points from sites of known age (or good association) in northern Ontario. It is meant solely as a guide. It is not a complete guide to point types in Ontario.

First, a word of caution. Artifacts illustrated as examples of a particular type are almost always the **best** example available; the one that illustrates all the characteristics used to define the type. Often the points we locate during archaeological surveys appear less distinctive and less easy to "type" than one would hope. Even when the point type is obvious, it does not necessarily define and date the archaeological site on which it was found. Artifacts are known to have been reused and even curated by past cultures. We are not the first to place cultural value on things from the past! So be circumspect in providing a site date on the basis of single item. Always look for supporting evidence.

EARLY PALEO-INDIAN  
(ca. 11,000 -10,400 B.P.)

Fluted points are the characteristic artifact of the Early Paleo-Indian Period. Three types have been recovered in southern Ontario: Gainey, Barnes and Crowfield. Examples are illustrated below.

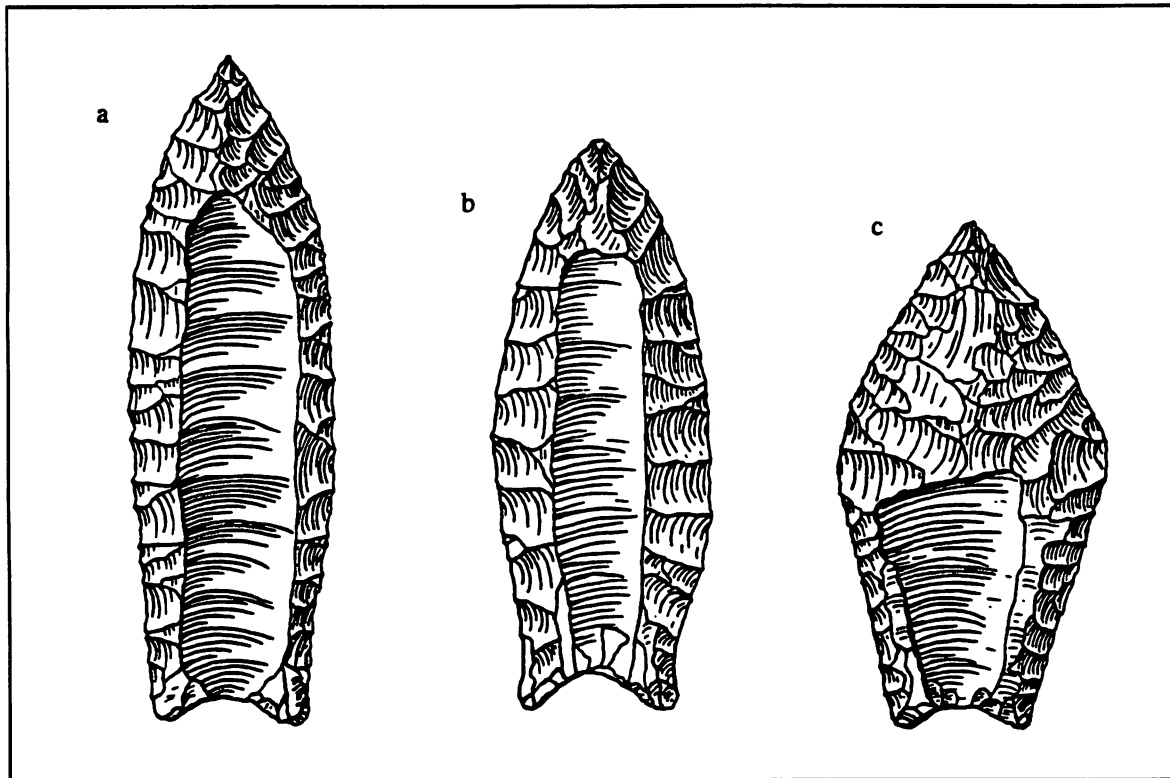


Figure 1. Early Paleo-Indian points.

- a. Gainey
- b. Barnes
- c. Crowfield

LATE PALEO-INDIAN  
(ca. 10,400-9,500 B.P.)(slightly later in northern Ontario)

Projectile point types from the Late Paleo-Indian period have been recovered in both southern and northern Ontario. In southern Ontario Holcombe, Hi-Lo and Lanceolate forms predominate. In northern Ontario a variety of western forms, such as Plainview, Scottsbluff, Eden and Minoqua have been identified.

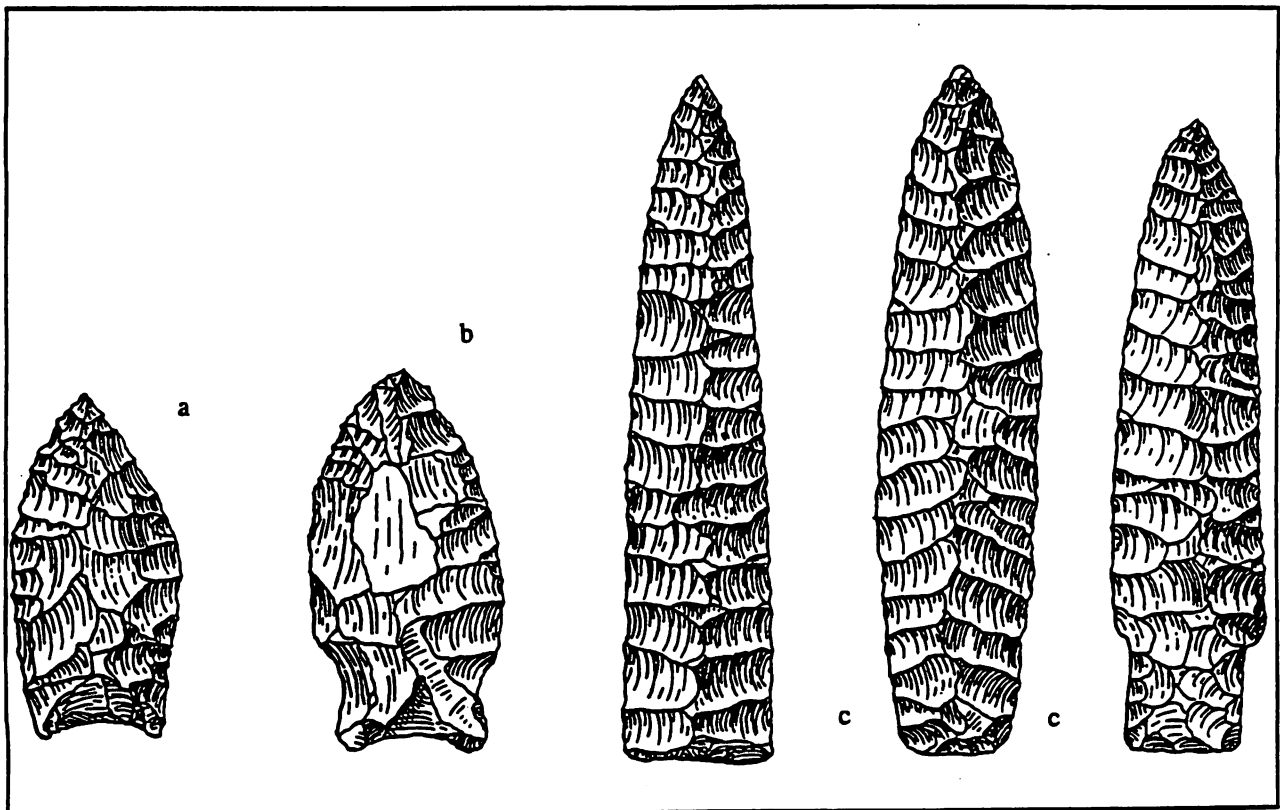


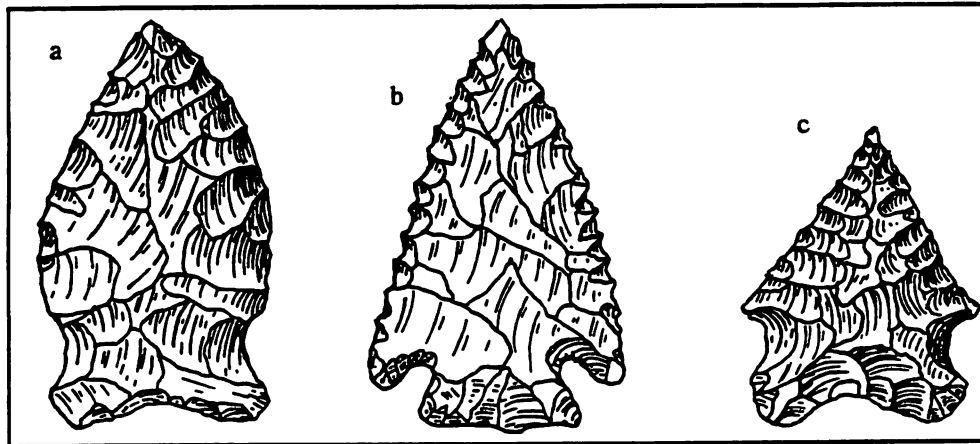
Figure 2. Late Paleo-Indian point types.

- a. Holcombe
- b. Hi-Lo
- c. Unstemmed and stemmed Lanceolates



**EARLY ARCHAIC**  
(ca. 10,000-8,000 B.P.) Southern Ontario  
(ca. 8,000-5,500 B.P.) Northern Ontario (Early/Middle)

Early Archaic points fall within three general forms; side-notched, corner-notched and bifurcate base. Within each category numerous names have been allocated. Some examples are illustrated below.



**Figure 3.** Early Archaic points.

- a. Side-notched
- b. Corner-notched
- c. Bifurcates

MIDDLE ARCHAIC  
(ca. 8,000-4,500 B.P.)

Middle Archaic points include a number of stemmed, side-notched and corner-notched forms, some of which are illustrated below.

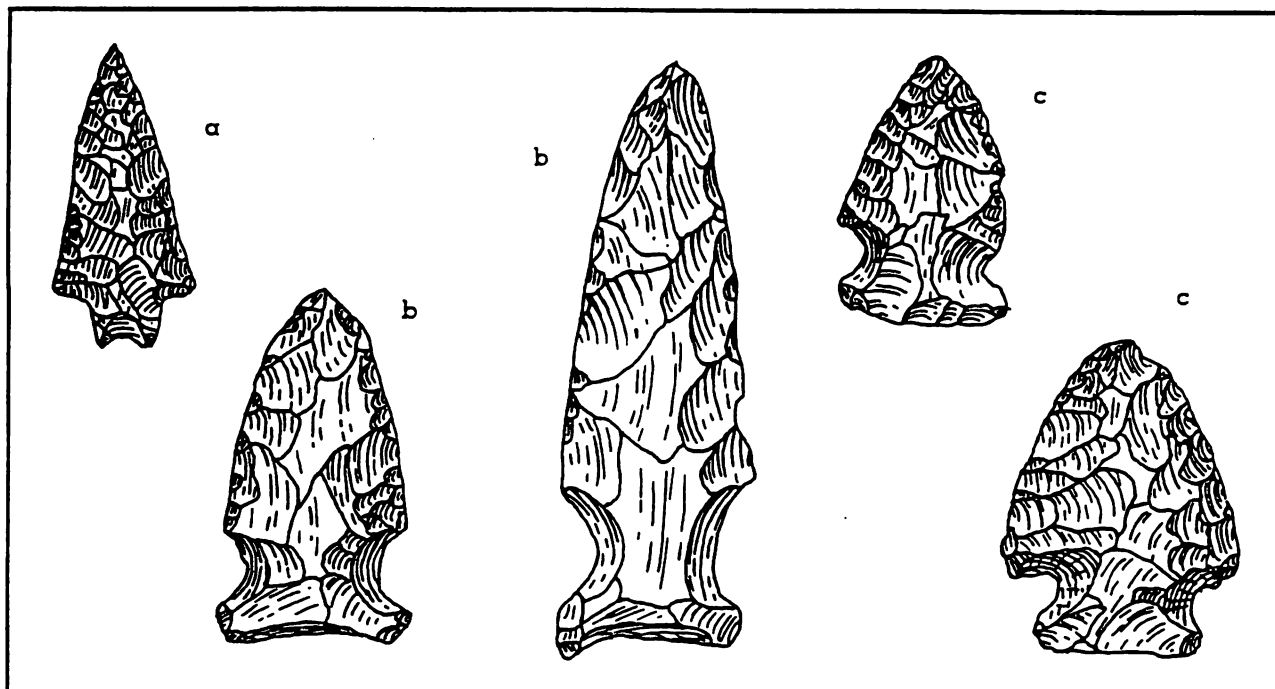


Figure 4. Middle Archaic point types

- a. Stanly/Neville
- b. Otter Creek
- c. Brewerton

LATE ARCHAIC  
(ca. 4,500-2,800 B.P.)

In southern Ontario Late Archaic point types have been broken down into Narrow, Broad and Small point forms. Within these categories, a wide variety of point types have been identified, some of which are illustrated here. Some of these forms are present in northern Ontario, however distinctive regional types also appear in the north, including some Plains types. Examples of some Broad Points are illustrated below.

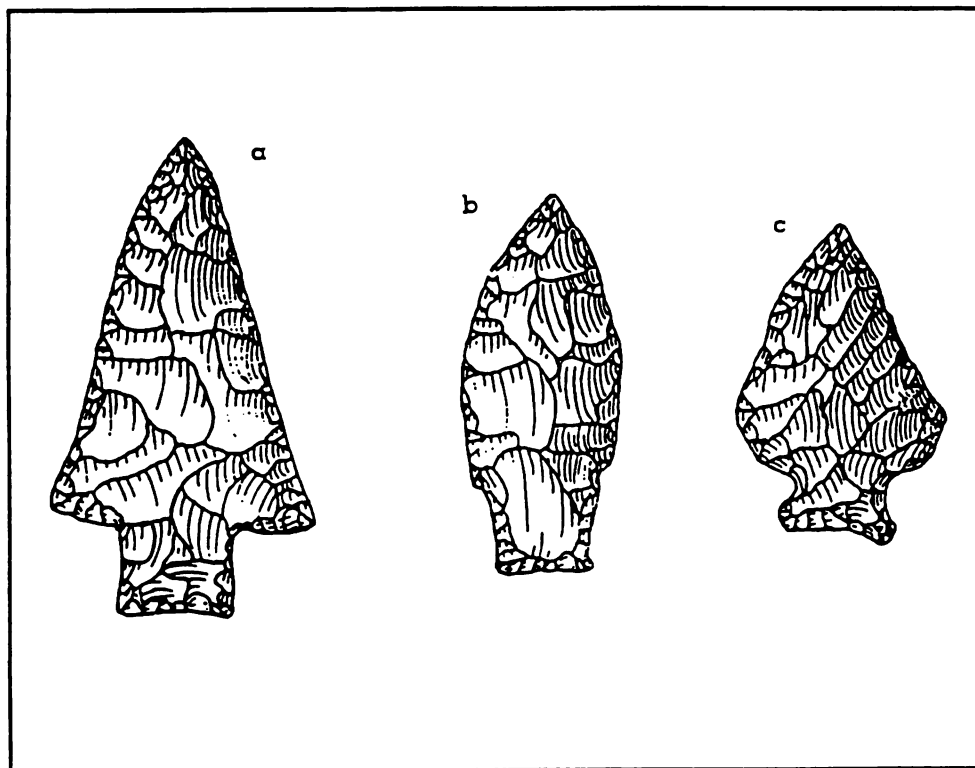


Figure 5. Late Archaic point types

- a. Genesee
- b. Adder Orchard
- c. Perkiomen

EARLY AND MIDDLE WOODLAND  
(ca. 2,800-1,100 B.P.)

Numerous point types are known for the Early and Middle Woodland periods. Side notched and expanding stemmed points are common on sites of this period in both northern and southern Ontario. Early Woodland Meadowood points, usually of Onondaga chert are found throughout southern Ontario and the southern parts of northern Ontario. Finely made points of imported cherts such as Flint Ridge and Upper Mercer occur in southern Ontario during the Middle Woodland period. A variety of northern Ontario Laurel Culture point types are also known, some of which are illustrated here.

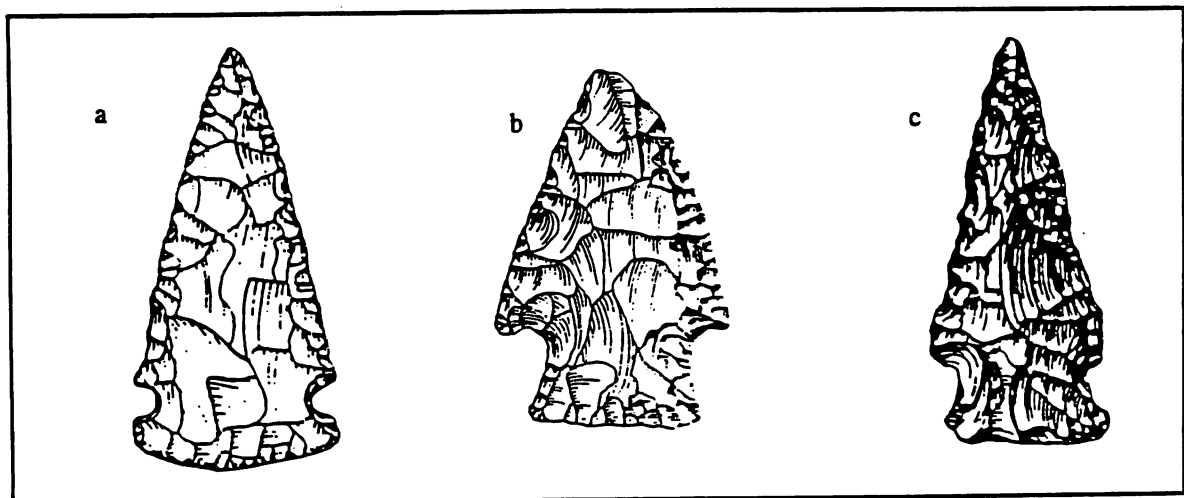


Figure 6. Early and Middle Woodland point types

- a. Meadowood
- b. Vanport
- c. Saugeen

LATE WOODLAND  
(ca. 1,100-350 B.P.)

Late Woodland projectile points tend to be small, thin and triangular. Both notched and unnotched forms are common. Some examples are finely made, others are simply large flakes which have been modified for use. As with the preceding periods, numerous names have been allocated to subtle variations in form.

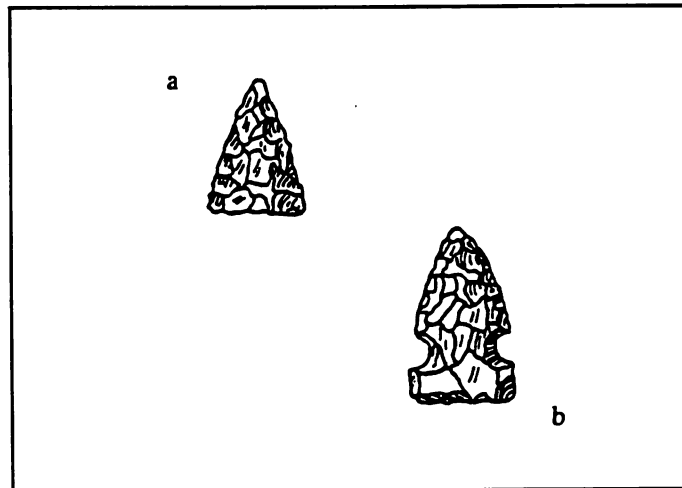


Figure 7. Late Woodland point types

- a. Daniels Triangular
- b. Port Maitland

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## OTHER LITHIC ARTIFACTS

While projectile points are an attractive and easily recognizable stone tool form, many other types of stone tool were used by the prehistoric inhabitants of Ontario. We tend to place considerable emphasis (perhaps too much) on projectile points because they are aesthetically pleasing and are datable by seriation and association. The more prosaic artifacts, such as flake knives and scrapers may well have been of more importance to the daily lives of the people we are studying. Certainly their relative frequency on archaeological sites would suggest that this is true. Most of these artifacts can not easily be related to a particular culture or period.

### Bifaces

Bifaces are chipped stone tools which have been created by the thinning of a chert core or large flake by the removal of flakes from both sides. They are characteristically lens-shaped in cross section. This broad category of tools is something of a catchall. Some bifaces are incomplete projectile points, representing the penultimate stage in point manufacture. Others were clearly made to be used, as is, as strong utility knives.

### Scrapers

The principle characteristic of scrapers is the presence of a working face with an edge angle of more than 40°. In practice many scrapers have working edge angles which approach the 90° mark. **Side scrapers**, as the name suggests have a working edge along one or other of the tool's edges. **End scrapers** are characterized by the presence of a working edge on one or other of the tool's ends. Scrapers are extremely variable in form. Some are notched or stemmed, others display no obvious modification other than the edge work.

### Flake Knives

Flake knives and utilized flakes are usually primary or secondary flakes, the edges of which show clear signs of modification through use. The angle of the worked edge is less than 40°. The term "flake knives" is usually applied to flakes where there appears to have been deliberate modification to the flake edge, prior to its use. The edges are **retouched** to provide a regular and even cutting edge. Utilized flakes, on the other hand, are flakes which show signs of use (battered edges, microscopic step fractures etc.) but which do not display signs of deliberate modification. These latter tools are the prehistoric equivalent to the disposable x-acto knife - use it till it's blunt, then throw it away.

### Wedges / Pièces Esquillées

These bifacial tools are usually small, thick and rectangular. They almost always show considerable battering along the worked edges leading to the suggestion that they were used as wedges for splitting bone and wood.

### Drills

Long, narrow, usually bifacially worked stone artifacts are often described as drills; their function being assigned more as a result of intuition and tradition than science. Only careful microscopic examination of the use wear on the tip can determine the function of the tool.

### Cores

Cores are what is left over once the flakes have been removed. Core were sometimes refined for use as artifacts.

### Unmodified Flakes

Unmodified flakes are a common artifact on prehistoric sites throughout Ontario. Although they may seem prosaic, don't dismiss them. Even without further research they can offer a wide range of information about the activities which were occurring on the site. The material of which they are made may provide information about the site's age and relationships, and their form may tell you whether artifacts were being made on site from local materials, or whether scarce tools were being resharpened.

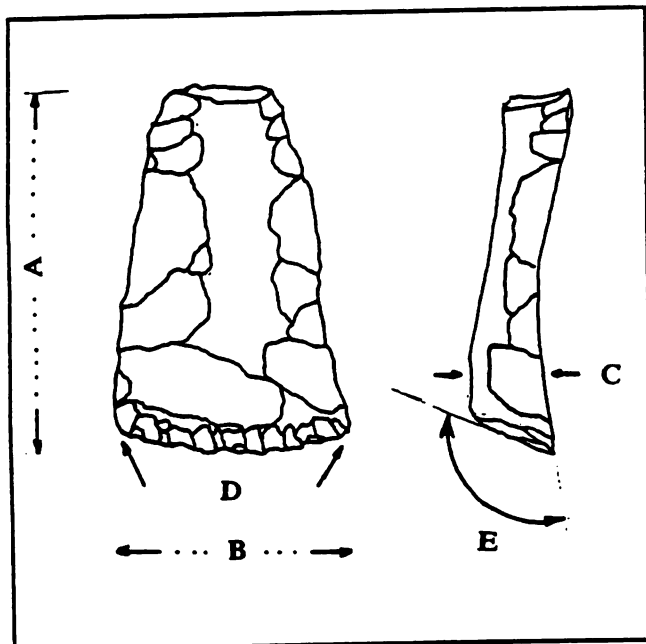
## ANALYSIS / DESCRIPTION

Archaeologists have analyzed artifacts in a bewildering variety of ways. It would seem that no two archaeologists are capable of agreeing on suitable terminology. For instance, whether you describe an artifact as expanding stemmed or corner notched is a somewhat subjective assessment. The following section provides a brief summary of the attributes of stone tools most useful for comparative analysis.

### Raw Material

What is the artifact made of? You may be familiar with the lithic raw materials of your area and be able to provide a reasonably accurate identification. If not, discuss your findings with other archaeologists working in the area. Look at reference collections in the MCTR archaeology offices in London and Thunder Bay. Betty E. Eley and Peter von Bitter's book on the Cherts of Southern Ontario is a useful guide. Northern Ontario researchers will have to rely on contacts with other researchers and their own geological research.

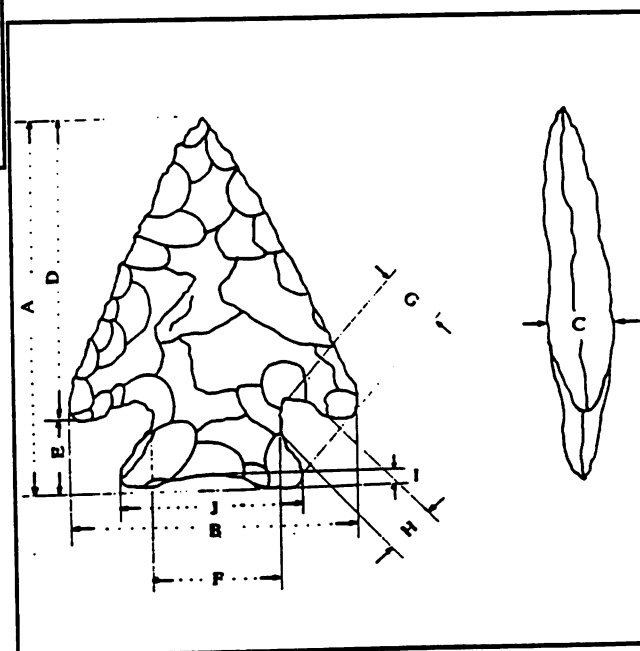
The same basic categories of information are available for all tools.



**Figure 8.** Scraper measurements.

- A = Maximum length
- B = Maximum width
- C = Maximum thickness
- D = Edge length
- E = Edge Angle
- Edge Location / Shape.

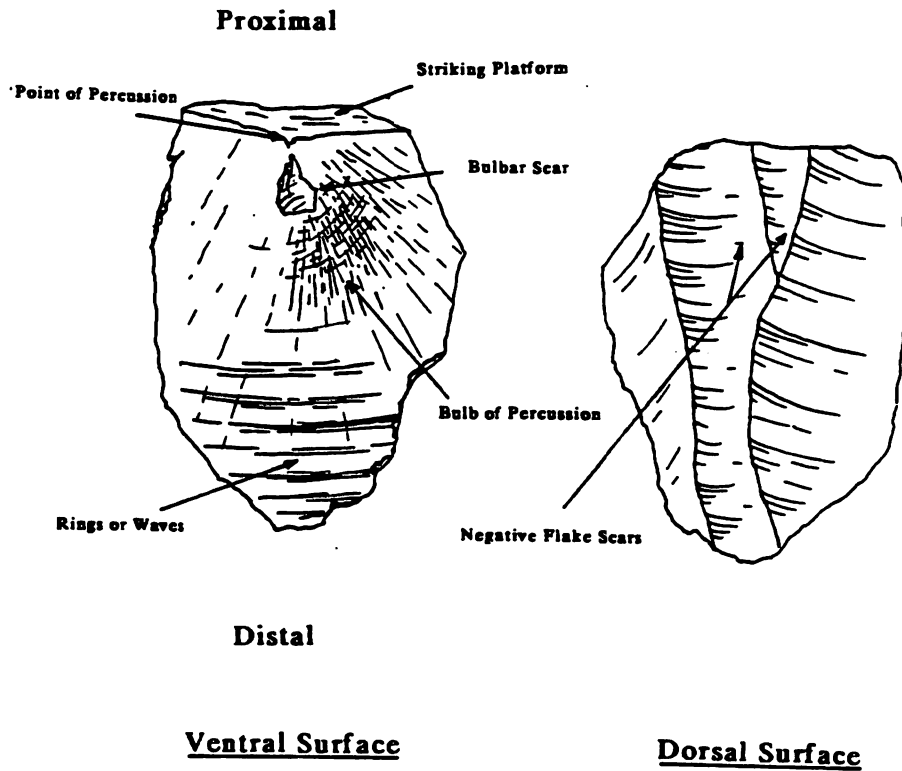
Are there any signs of wear? Where?  
 Tip? Lateral 1? Lateral 2? Haft? Base?



**Figure 9.** Projectile point measurements.

- A = Maximum length
- B = Maximum width
- C = Maximum thickness
- D = Blade length
- E = Stem or tang length
- F = Tang width
- G = Notch depth (left and right)
- H = Notch width (left and right)
- I = Basal concavity depth
- J = Stem or tang width
- K = Weight (grams).





**Figure 10.** Terms used to describe parts of Flakes and Flaked Stone Tools

### Chert Flakes

Numerous methods have been used to analyze chert flakes. Each method seeks to inform us about some of the things people were doing at the site through the detailed examination of the lithic debris they left behind. The following categories of flakes are presented as a guide.

**Primary Flakes** - These are the first flakes to be removed during the manufacture of a chipped stone tool. They are usually large, and they often have cortex (the rind of the chert) on their dorsal surfaces. Primary flakes from which other flakes have already been removed, show deep, concave scars on their dorsal surface. The angle between the ventral surface and the platform of the flake is close to 90°.

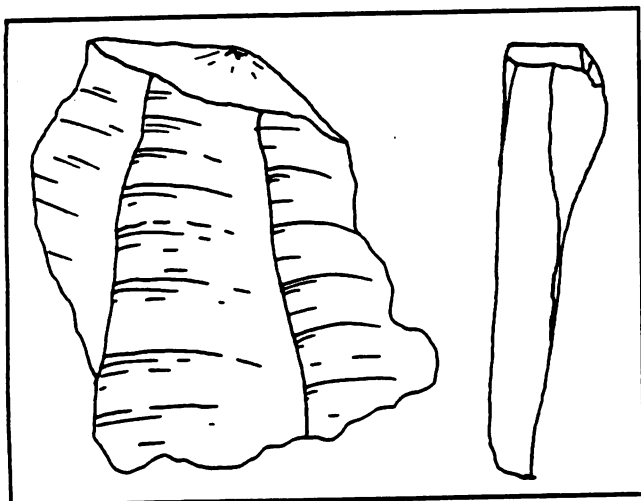


Figure 11. Primary Flake

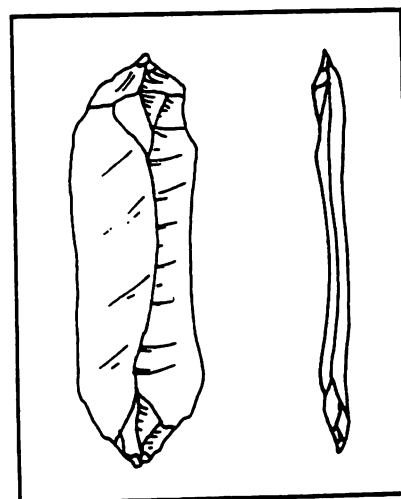


Figure 12. Bipolar Reduction

**Bipolar Flakes** - The technique of bi-polar reduction was often used to work chert found as cobbles in till. The chert cobble would be placed on a suitable anvil, or hard rock, and force directed down onto the top of the cobble. If the maker managed to keep his thumbs out of the way, the force from the blow would radiate through the cobble, producing elongated flakes with crushed striking platforms.

**Secondary Flakes** - These flakes tend to be small, elongated and thin. They are produced during the thinning and refinement of bifaces and bifacially flaked projectile points. These are the flakes which were removed to create the shallow concave flake scars you can see on most projectile points. If a striking platform is visible at all, it is likely to be small, crushed and form an extremely acute angle with the ventral surface. Secondary flakes were made using both percussion and pressure flaking techniques.

**Shatter** - Shatter consists of all those angular, blocky fragments of chert which lack obvious ventral flake scars, striking platforms or other signs of deliberate detachment. These fragments are created during the early stages of knapping, as the core being reduced flies apart along planes of weakness or natural bedding planes.

**Flake Fragments** - These are fragments of chert flakes which lack the diagnostic elements which would allow you to further analyze them.

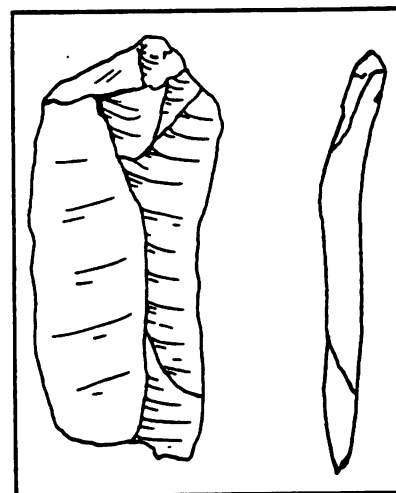


Figure 13. Secondary Flakes

## Prehistoric Pottery

The use of pottery by the people of Ontario began about 2,800 years ago. Pottery sherds are a frequent find on archaeological sites because they are relatively durable. The clay from which pots are made is a plastic medium; it can be shaped to conform to the artistic or cultural preferences of the potter. Once the pottery is fired, these preferences become fixed in the clay, providing a unique record of the past.

Fortunately for archaeologists, cultural and artistic preferences and functional needs change through time. These changes have been enshrined in the methods, patterns and styles of vessel forms and the types of decorations. We can see the stylistic differences between the pottery vessels from a different age as easily as we can differentiate between a nineteen forties' and a nineteen nineties' pickup.

A wide variety of decoration techniques were used by Ontario's prehistoric potters. The following terms occur frequently in the archaeological literature:

### Manufacture

**Coil technique** - pots made by building up the vessel shape using long, thin strips of clay. Pots made by this method often break at the junction of the coils. Sherds may show characteristic negative (concave) or positive (convex) shape at the break. Middle Woodland vessels were usually made in this way.

**Paddle and Anvil** - pots made by working the shape of the pot from a large ball of clay. A hollow is made in the centre of the ball, then the vessel shape is worked up by gently beating the clay surface with a paddle (flat implement, often cord wrapped), against an anvil (a stone or hand). This technique usually results in thinner walled vessels than the coil technique and was extensively used during the Late Woodland period. Pottery made in this way is often quite friable and delaminates easily.

### Form

**Conical** - vessels with a base which comes to a blunt point - generally a Middle Woodland feature.

**Globular** - vessels which have a generally rounded base - generally a Late Woodland characteristic.

**Castellations** - peaks along a vessels lip. A characteristic of Late Woodland vessels.

**Collar** - a distinct thickening or band at the vessel rim, created as a focus for decoration.

**Incipient Collar** - a slight thickening or band at the vessel rim.

**High Collar** - a prominent, broad and distinct collar which was the main focus of decoration on some Iroquoian vessels.

Decoration / surface treatment

- Corded** - vessels having impressions left by the application of twisted fibre cords to the clay surface. This occurred incidentally during vessel shaping by the paddle and anvil method, and deliberately by pressing cords in to the vessel surface to provide both texture and pattern. Cording occurs most frequently on Late Woodland vessels.
- Ribbed Paddle** - overlapping rectangular marks left on the exterior body of pots by the application of a textured paddle. The paddle may have been grooved wood or wrapped in a leather thong. This technique was prevalent during the Uren sub-stage.
- Slip-Roughening** - the addition of a thin mixture of clay or sand/clay mix to the vessel to provide a roughed surface texture. Present on some vessels of the Springwells Phase in extreme southwestern Ontario.
- Cord Wrapped Stick** - twisted fibre cords, wrapped around a stick were applied as decoration on some vessels. The stick was usually pressed sideways into the clay to form a complex, linear impression. This technique was particularly favoured by Blackduck and Princess Point potters.
- Linear Stamping** - impressions made in the clay with a long narrow implement. Linear stamping often resembles impressions left by a fingernail. These are usually arranged in rows of horizontal or oblique impressions.
- Stamping** - the creation of patterns of decoration by pressing an object into the clay.
- Push-Pull (Stab and Drag)** - this is a technique. A tool is pushed or stabbed into the clay, then dragged out obliquely before being reinserted into the clay. Impressions of vertical or oblique push-pull often form horizontal bands around vessels sometimes referred to as interrupted linear.
- Pseudo-Scallop Shell** - sinuous tool marks resembling the edge of a scallop shell. These were made by applying a tool which had been notched on alternating sides to the vessel body. It is primarily a Middle Woodland technique.
- Dentate** - tool marks left by applying a notched tool to the vessel surface. These impressions look like rows of small, rectangular tooth or peg marks.
- Punctates / Bosses** - blind holes (punctates) or bosses (punctates made from the inside) which were made by pushing a blunt stick into the clay. Punctates and bosses were usually arranged as a single band encircling the pot just below the lip.
- Appliqué Strip** - a thin band of clay which has been applied to the surface of the vessel. This was often used as a separate band of decoration by notching.
- Trailing / Incising** - decoration formed by dragging a sharply pointed object across the surface of the clay.

### EARLY WOODLAND POTTERY

The earliest known pottery in Ontario dates to the Early Woodland period and is called Vinette 1. Sherds of this ware are thick (ca. 1.0 cms.) with interior and exterior cordmarking. This texturing is often vertical on the exterior surface and horizontal on the interior surface, although this is not always the case. Vinette 1 vessels have a conical base and flare slightly towards the vessel lip. Early Woodland Vinette 1 pottery has been found throughout southern Ontario and in parts of northeastern Ontario. So far no pottery identified as Early Woodland has been found in the northwestern parts of the province. For this reason some researchers prefer to use the terms "Initial" and "Terminal" Woodland in northern Ontario.

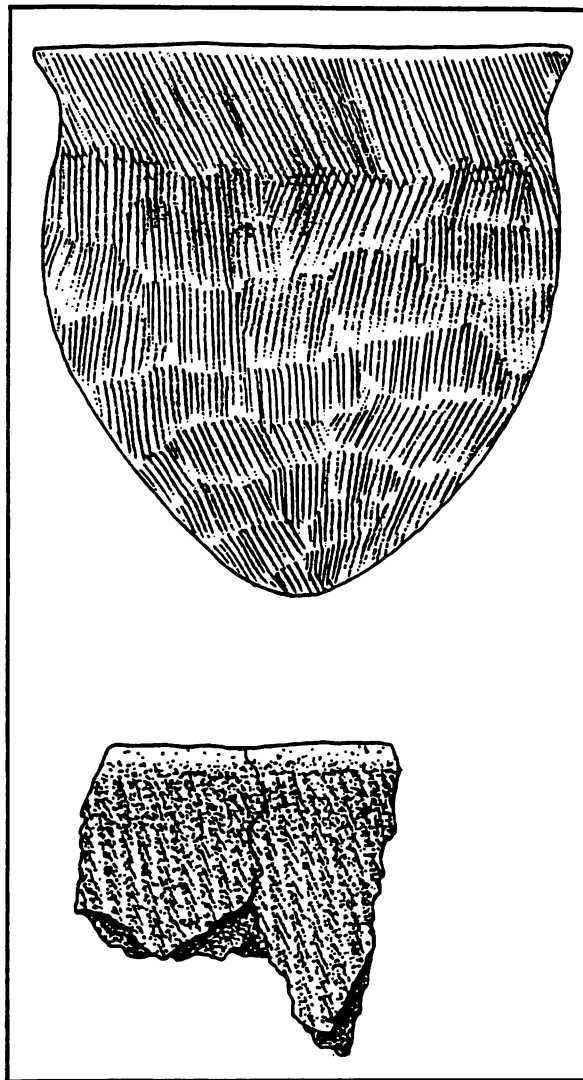
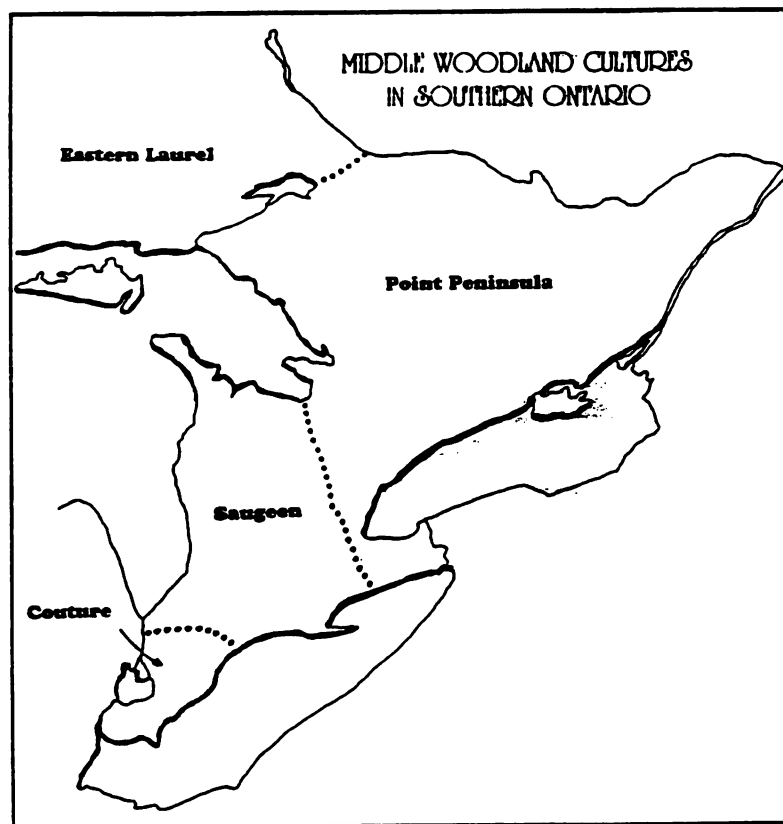


Figure 14. Vinette I

## MIDDLE WOODLAND POTTERY



Middle Woodland Cultures in Ontario

Middle Woodland pottery occurs throughout Ontario. Four distinct Middle Woodland culture areas have been defined: Point Peninsula in the southeast, Saugeen in south central Ontario, Laurel throughout the north, and Couture in the extreme southwest of the Province. Middle Woodland pots throughout Ontario share some basic characteristics: they tend to be conical with slightly constricted necks and flaring rims, and they are coil made. Coil breaks are often visible on pot sherds from this period. Vessels are often decorated with notched tool impressions, frequently emulating the edge of a scallop shell, or as rows of "dentate" impressions. Saugeen vessels are often covered in "rocker stamp" impressions made by rocking the stamp across the surface of the clay. Decorations are frequently arranged in zones where different techniques are used. Cord marking is common on Couture complex sherds.

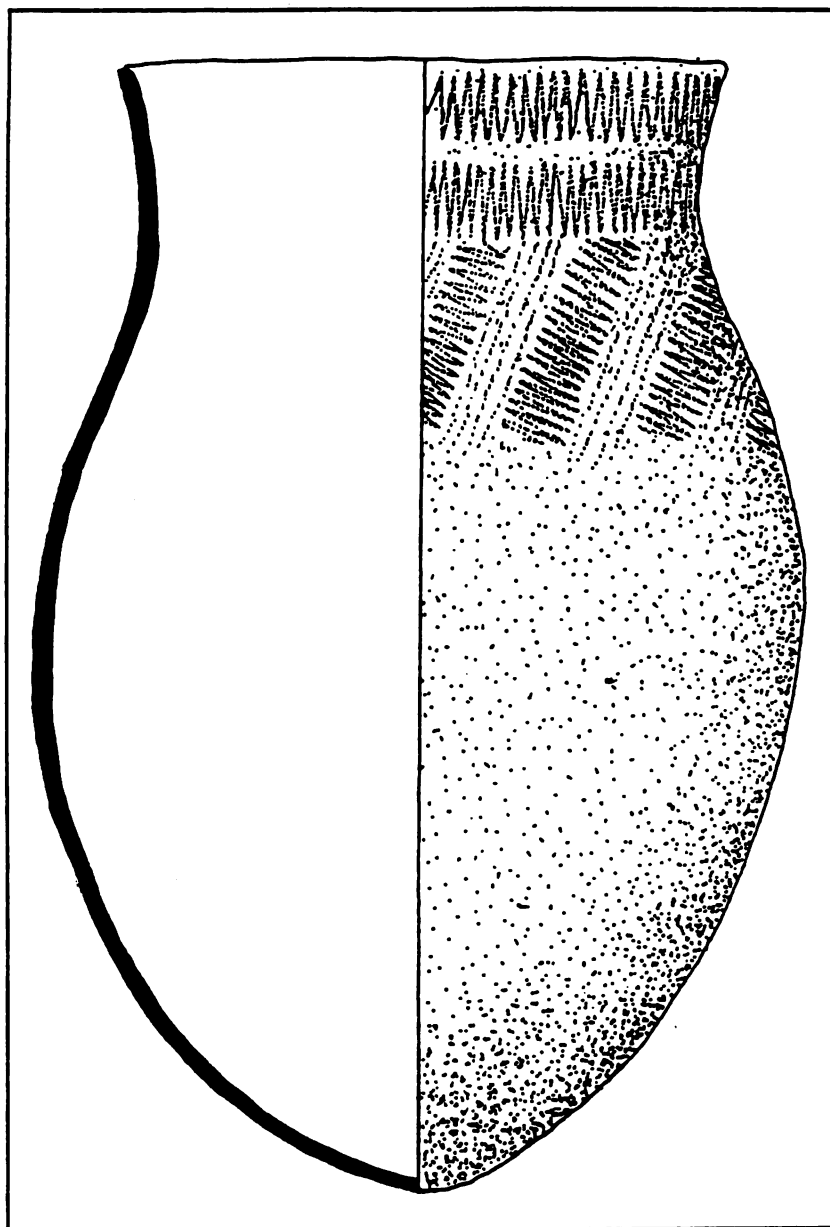


Figure 15. Point Peninsula

## LATE WOODLAND POTTERY

At the most basic level, the pottery vessels of the Late Woodland period differ from those of the preceding times in that they tend to be more globular in form, were made by the paddle and anvil method, and they have more complex lip and rim forms. Dentate and other simple tool impressions are replaced by cord wrapped stick decoration, and the decorated zone is increasingly focussed on the neck or rim area. However, these simple characterizations barely convey the vast and often confusing array of traditions, techniques and preferences displayed by the prehistoric people of Ontario during fifteen hundred years.

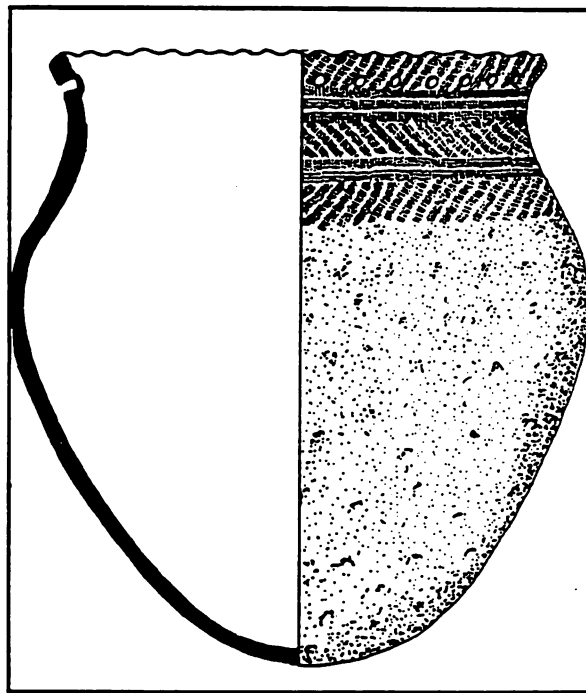
Ceramic traditions vary vastly from region to region and through time; a situation which is further complicated by people mimicking or adopting the ceramics of their neighbours, and by receiving pots (and potters) through trade. The only way to become really familiar with the pottery of the Late Woodland period is through the extensive study of archaeological and museum collections, and examining the archaeological literature. But be warned, this is a lifetime's work!

The following summary is presented only as the most general of guides.



**Princess Point - (ca. A.D. 600 - A.D. 900)**

The Princess Point complex occurs in the Niagara Peninsula area of Ontario. Vessels have semi-conical bases, slightly constricted necks with slightly flaring (or everted) lips. The body of the vessel is usually heavily cord roughened. The neck area is often decorated with cord-wrapped stick impressions arranged in horizontal and oblique rows. Oblique cord wrapped stick impressions are common on the lip. Rows of punctates often occur below the lip. Straps of clay were applied to the exterior surface of the lip on some vessels. The pottery of the Sandbanks Tradition of eastern Ontario is very similar (some might say indistinguishable) from Princess Point pottery.

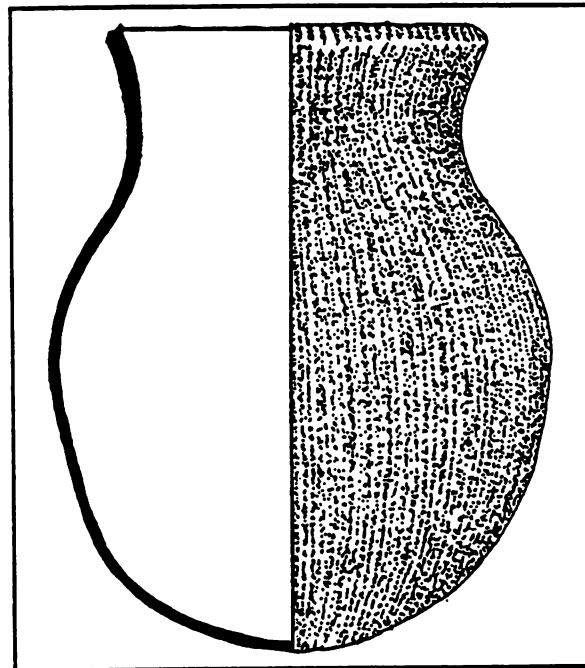


**Figure 16. Princess Point**

**Rivière au Vase (Western Basin Late Woodland)(ca. A.D. 600-A.D.800)**

Rivière au Vase ceramics occur in southwestern Ontario in an area extending from London, west to Windsor and are called Wayne Ware. These small, thin walled vessels are similar to those of the Middle Woodland (Couture Complex), but are distinguished by the thinness of the vessel walls. This is thought to have occurred as the result of a technological innovation, exchanging coil manufacturing techniques for the paddle and anvil.

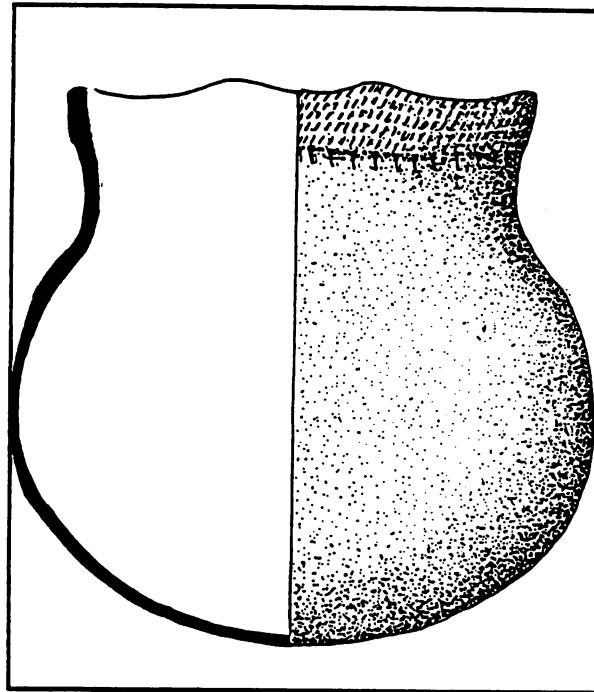
These vessels have a globular form with a constricted neck and either vertical or slightly flaring rims. The exterior of these vessels is usually decorated with vertical or near vertical coarse cord marks.



**Figure 17.** Rivière au Vase

**Pickering / Glen Meyer Pottery (Early Ontario Iroquoian ca. A.D.900 - A.D.1300)**

Two Early Ontario Iroquoian traditions have been recognised in southern Ontario; Pickering in central and eastern Ontario, and Glen Meyer which extends from the west end of Lake Ontario west about as far as London. Early Iroquoian vessels are more globular than those from the preceding periods and tend to have vertical to slightly outflaring rims. The rims of many Early Ontario pots are castellated. Most vessel bodies have smoothed over cord marks. During the process of making the pot, a cord wrapped paddle was used to shape and thin the pot walls. This left irregular patterns of cord marks which, in many instances, were partially, or completely smoothed over to remove them.

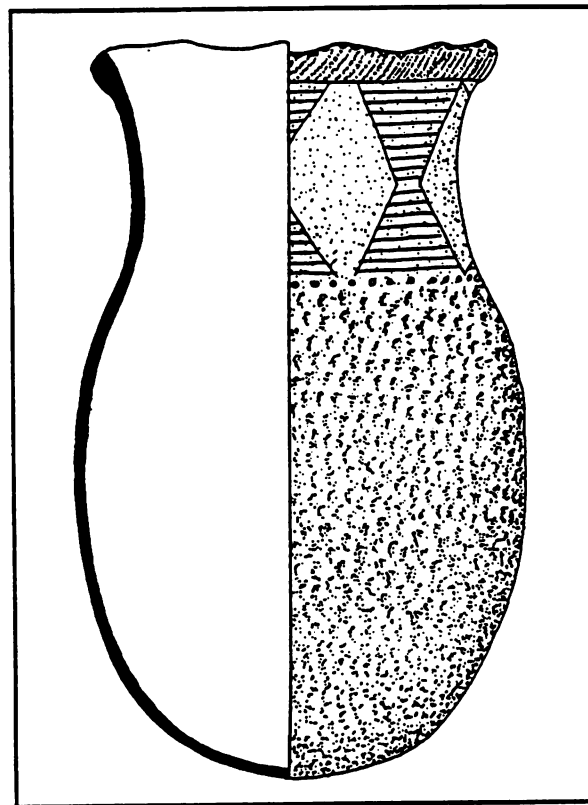


**Figure 18.** Pickering/Glen Meyer

Decoration tends to be restricted to the upper parts of the pot and was applied to neck and to both the interior and exterior of the rim. A variety of techniques were used, including dentate stamping, incising, and narrow cord wrapped stick. Often patterns of oblique or criss-cross decoration were applied to the rim area. Early Ontario Iroquois potters also added punctates and bosses to their pots.

**Younge Phase Pottery (Western Basin Late Woodland)(ca. A.D.800 - A.D.1200)**

The Younge Phase succeeded the Rivière au Vase in southwestern Ontario. Younge Phase pots are elongated in form with weak shoulders and a broad neck band which is the focus of much of the decoration. Neal Ferris and Carl Murphy have described this area as a "canvas" for the potters to decorate. The necks of these vessels are only weakly constricted although the rims tend to flare and may be slightly castellated. Younge Phase vessels are rarely collared although some have incipient collars.

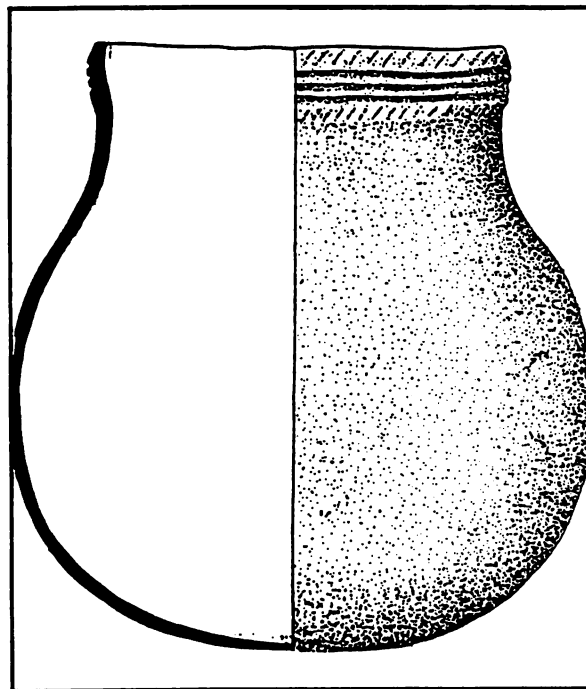


**Figure 19. Younge Phase**

Vessel bodies are almost always corded, with the broad neck smoothed to provide that "canvas" for decoration. This area is frequently filled with large, linear stamped triangles. Above the neck, the rim area is almost always decorated with oblique or vertical dentate or linear stamp decoration. Lips are often decorated in the same way.

**Uren / Middleport (Middle Ontario Iroquoians)(ca. A.D.1300-A.D.1400)**

Uren and Middleport mark a transitional stage in the Ontario Iroquoian sequence. This is reflected in the pottery. Uren vessels from this phase are globular in form and some have incipient collars, heralding the fully fledged collars of the later phase. Middleport vessels tend to be collared with the beginnings of castellations apparent on some pots. The bodies of many Uren pots were textured by the application of a ribbed paddle to the vessel surface creating an easily recognisable textured effect consisting of overlapping rectangles. Decoration was largely restricted to the rim area and consisted of a variety of arrangements of oblique and horizontal applications of trailed, linear stamped or incised



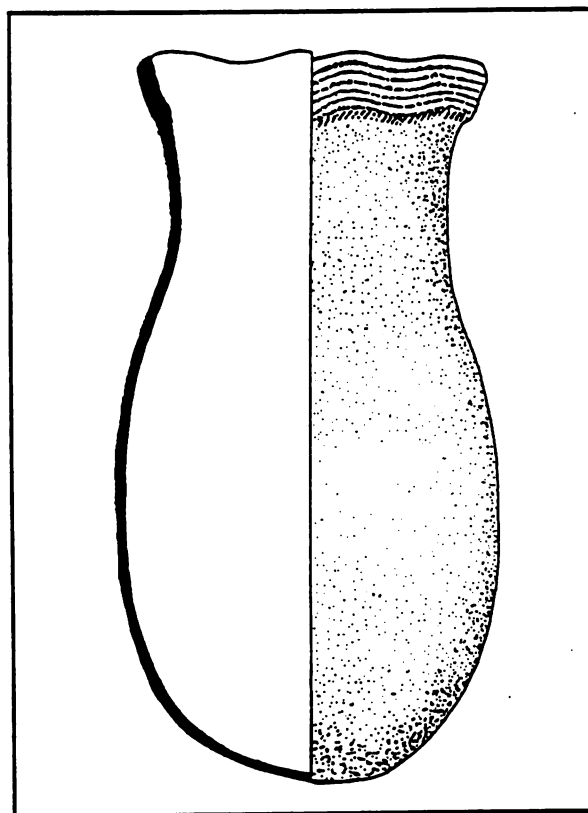
**Figure 20. Uren/Middleport**

tool marks. In some instances these were applied using the push-pull technique. Pottery types such as Ontario Oblique, Iroquois Linear, Ontario Horizontal are most common in the Uren sub-stage while Middleport Oblique and Ontario Horizontal predominate on Middleport sites.

**Springwells Phase** (Western Basin Late Woodland) (ca. A.D.1200-A.D.1400)

The Springwells Phase succeeded the Younge Phase in southwestern Ontario. Springwells Phase vessels are collared and castellated with very elongated, almost bag shaped, round or slightly conical bases. The bodies of some Springwells Phase pots were textured with a ribbed paddle.

The necks of Springwells vessels are particularly extreme, being elongated and blending into the body of the pot with barely noticeable shoulders. Decoration is often



**Figure 21.** Springwells Phase

restricted to the collar, consisting of a series of horizontal rows of push-pull, cord-wrapped tool or plain tool impressions which parallel the shape of the lip. Some vessels have cord roughened collars with stamping which superficially resemble the impressions a net would make if pressed into the wet clay.

Another vessel type of the late Springwells Phase is Mixer Dentate. These vessels have weakly developed or non-existent collars but in many other respects resemble other Springwells forms. They diverge in having complex dentate or tool impressions forming a broad band around the rim area. The exterior surface of these vessels is sometimes roughened with an applied slip of sand and thin clay.

### Huron Pottery (Late Ontario Iroquois) (ca.A.D.1400 - A.D.1650)

The Huron are generally recognised to have emerged as a distinct cultural group from Middleport forebears. Two "divisions": the southern, formerly inhabiting the north shore of Lake Ontario between the Niagara Escarpment and Prince Edward County, and the northern, located in Simcoe County, are believed to have coalesced to form the historically known Huron during the sixteenth century.

Although a variety of vessel forms exist, Huron pots are generally globular with constricted necks and slightly flaring collared rims. Decoration occurs most frequently on the collar, with some decoration on the neck and shoulders. A number of collar decoration

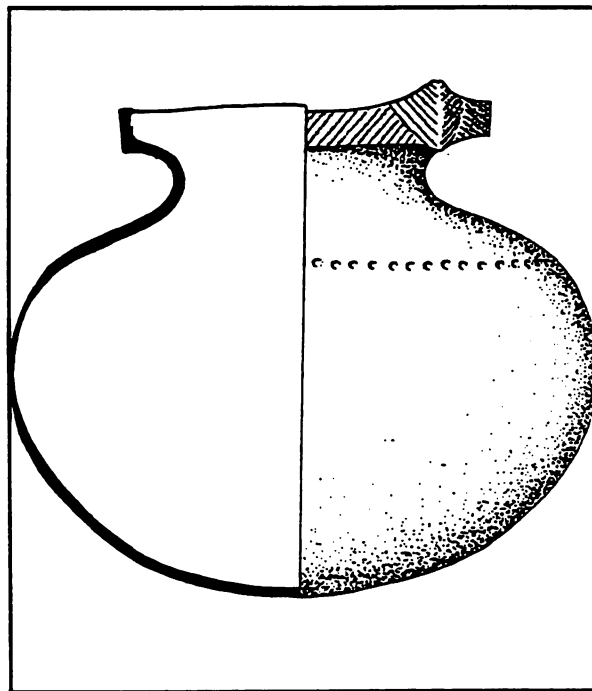


Figure 22. Huron

techniques were used which future research may show to have regional or tribal significance. A variety of techniques were used to create the decoration, the most common of which were trailing, stamping and punctuation. These are arranged as: Horizontals - encircling bands of trailed decoration, Simple - arrangements of vertical or oblique lines, and Opposed - small triangular panels of oblique and reverse oblique trailed lines, sometimes in conjunction with horizontals or verticals.

Huron pottery is well made and the whole undecorated portion of the body is usually smoothed. Many Huron vessels have one or more pronounced castellations, which, in some cases can be quite elaborate. Decorations consisting of parallel vertical incisions and chevrons frequently occur on the castellations.

### St. Lawrence Iroquois Pottery (Late Ontario Iroquois)(ca.A.D.1400-1580)

The St.Lawrence Iroquois were a distinct group of Iroquoian people who occupied the St. Lawrence River Valley. These people had met Jacques Cartier on his first expedition to Canada in 1534 but had disappeared completely by the beginning of the seventeenth century; a situation which engages the interest and attention of an increasing number of scholars.

St. Lawrence Iroquois pottery is extremely well made and attractive, showing a control and precision of execution rarely matched elsewhere in the province. The vessels are typically Iroquoian in form, having round bases, collars and castellations, but can be recognised by the frequent use of circular stamps (or shallow punctates) and incised chevrons on well

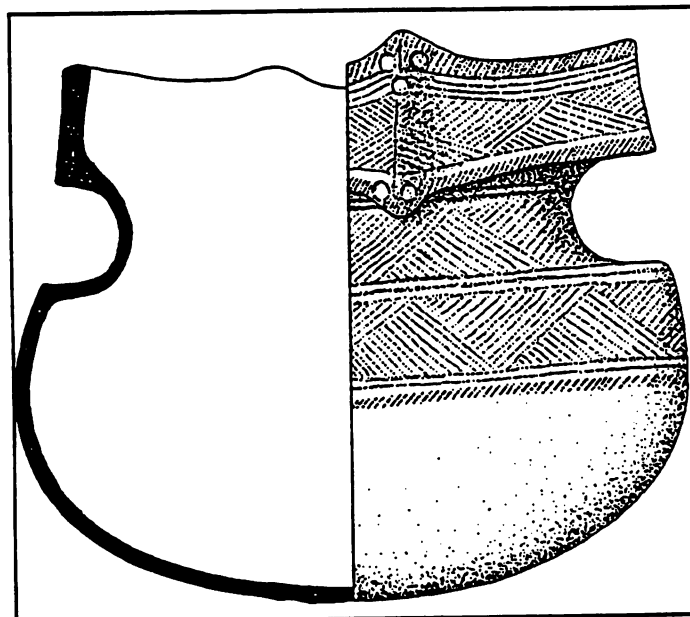


Figure 23. St. Lawrence Iroquois

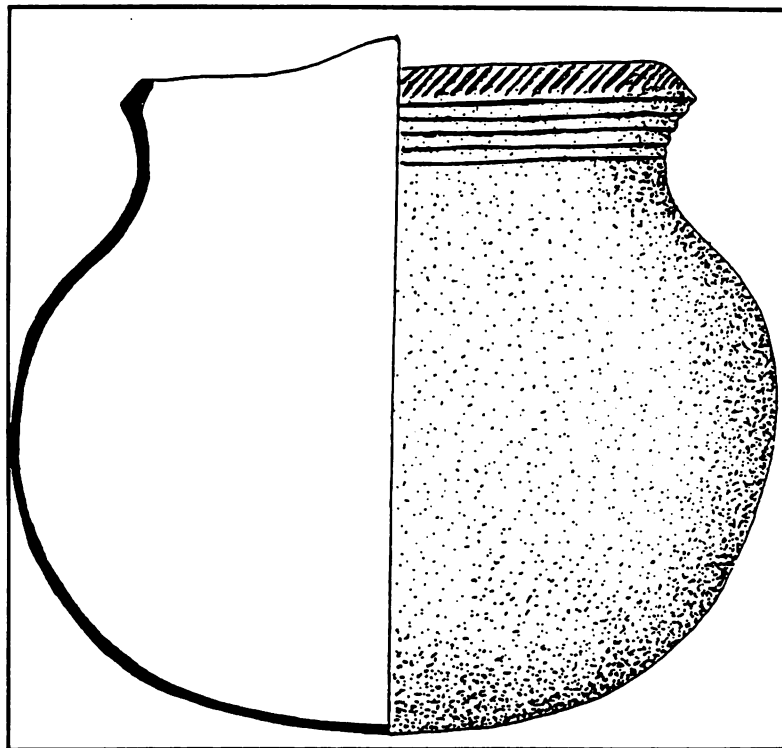
formed and distinct collars. Collars are frequently marked off from the rest of the vessel by a row of vertical incisions on a "pinched" collar base.

Castellations appear to have been particularly singled out for decoration, often forming the focus of the whole pattern of decoration. Vertical incisions below the castellation, surrounded by patterns of circular punctates are common. These sometimes resemble human faces.



**Neutral Pottery (Late Ontario Iroquois) (ca. A.D. 1400 - A.D. 1650)**

The Neutral were an Iroquoian people who occupied lands adjacent to the west end of Lake Ontario and the north shore of Lake Erie. The pottery used by these people shares the same basic characteristics found on most Iroquoian pottery; globular vessel shape, constricted necks, developed collars, incised or trailed decoration etc. Only the subtle differences in the way the decoration was applied and the frequencies with which certain vessel types occur on archaeological sites allow researchers to distinguish Neutral vessels from those of their Iroquoian neighbours.



**Figure 24.** Pound Necked

In general, Neutral vessels from the period A.D. 1400 to A.D. 1500 have relatively short collars. The two pottery types which predominate during this early period are Ontario Horizontal and Pound Necked. After about A.D. 1500, Neutral potters appear not to have favoured decorating the necks of their vessels, focussing all their attention on the collared rims, although some decoration of the vessel shoulders is also present.

**Wolf Phase Pottery (Western Basin Late Woodland)(ca.A.D.1400-A.D.1600)**

The Wolf phase is the latest phase in the Western Basin Late Woodland and is restricted to extreme southwestern Ontario.

The classic pottery type of the Wolf phase is known as Parker Festooned; an idiosyncratic name for some idiosyncratic vessels which are quite distinct from others in the region.

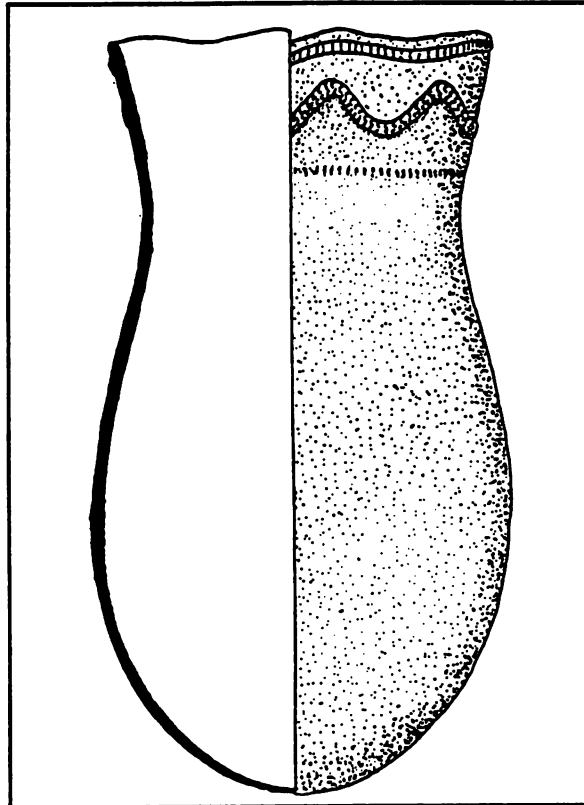


Figure 25. Wolf Phase

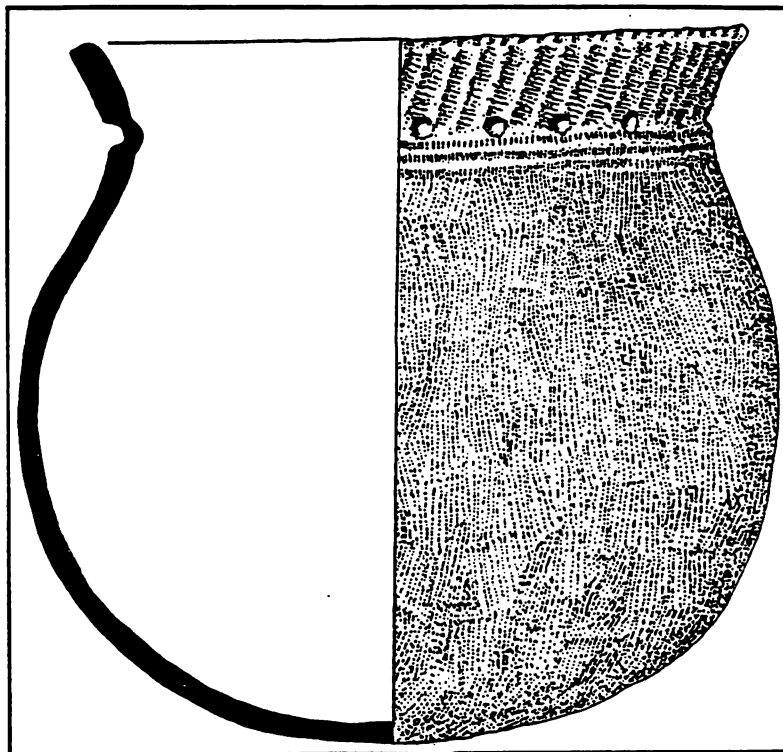
Parker Festooned pots tend to be large, flaring outward markedly from a constricted neck to broad, often castellated rims. The body of the vessels still retain the essentially bag shaped form of earlier Younge and Springwells pots but what really distinguishes Wolf phase vessels is the "festooned" decoration. This is easily recognisable as a series of one to three undulating or zig-zag lines of decoration which encircle the rim or vessel neck. The festooning may have been applied in two ways. On some vessels a separate strip of clay was applied to the surface. This was sometimes left plain, or decorated by impressing the applique strip with a tool. On others the festooning was achieved by simply decorating ridges of clay with the tool impressions. In either case the result is more or less the same. These vessels are usually plain below the neck and the body of the vessel is roughened with an applied slip of sand and wet clay.

Later Wolf phase vessels are less bag shaped, may have strap handles below the rim and almost always have a strip of clay applied at or near the junction of the rim and neck.

**Blackduck Pottery (ca. A.D. 900 - A.D. 1650)**

Blackduck pottery has been found from well beyond the western border of Ontario to as far east as the western parts of the Lake Huron region - corresponding quite closely to those areas historically occupied by Ojibwa peoples.

Blackduck pottery shares some traits with other Late Woodland vessels from Ontario such as Princess Point and Pickering/Glen Meyer in that they tend to be globular in form, are paddle and anvil made and cord wrapped stick (CWS) was the most common form of decoration. However, while the southern Ontario types mentioned had a relatively short lived florescence, Blackduck pottery remained virtually unchanged from about A.D. 900 until European Contact.



**Figure 26.** Blackduck

Blackduck vessels have broad to slightly constricted necks, with either straight or outflaring rims. The lips are usually flattened to provide a panel for decoration. By far the largest percentage of Blackduck vessels have cord wrapped stick decoration on their lips, rim and neck. The decoration on the exterior of the vessels often consists of a band of oblique cord wrapped stick impressions just below the lip and above a row of punctates. One or more horizontal rows of CWS decoration usually occur below the punctates. Vessel bodies are rarely decorated but are textured with textile or fine cord impressions.

### Selkirk Pottery (ca.A.D.900 - A.D. 1800)

The makers of Selkirk pottery inhabited lands extending from northern Saskatchewan to the more northerly parts of northern Ontario. Most Selkirk sites lie in the northern parts of the province in lands draining northward towards James Bay. The people who produced this pottery were almost certainly the ancestors of the historic Cree.

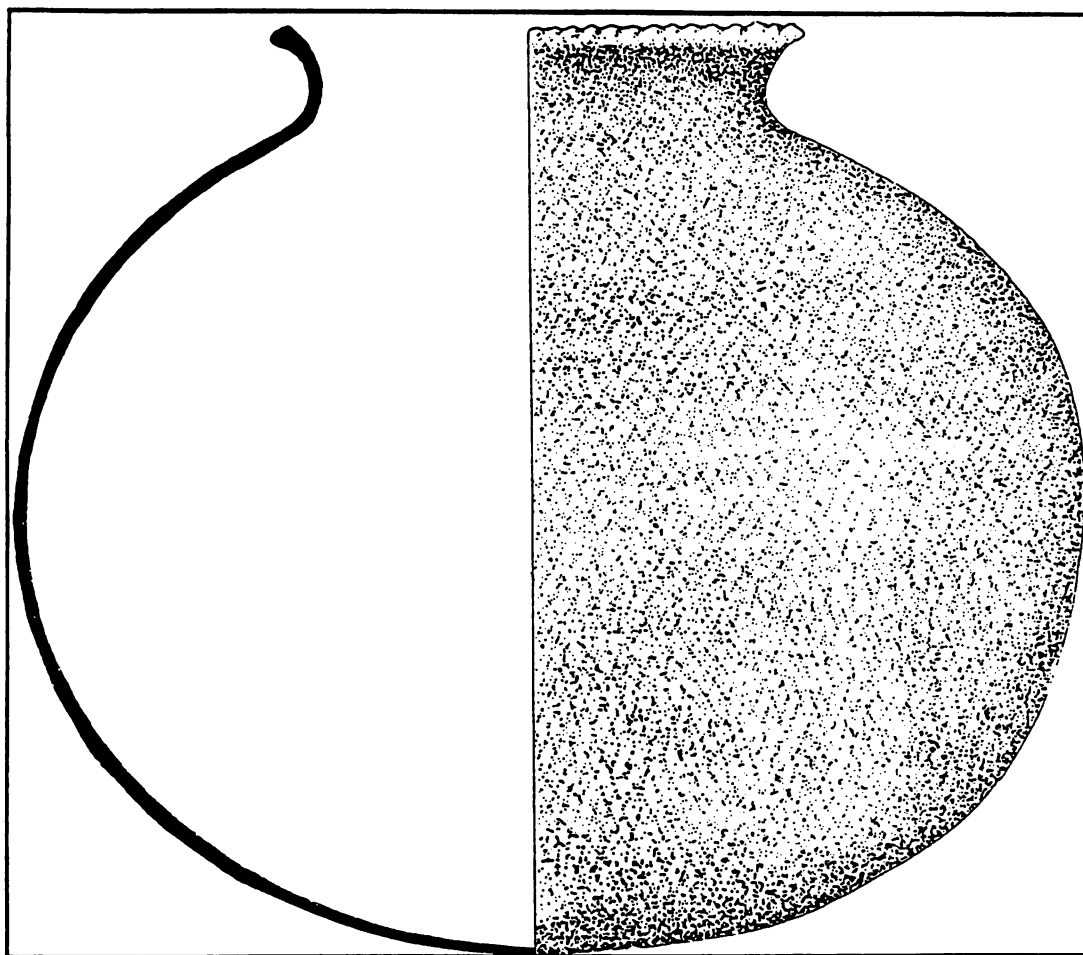
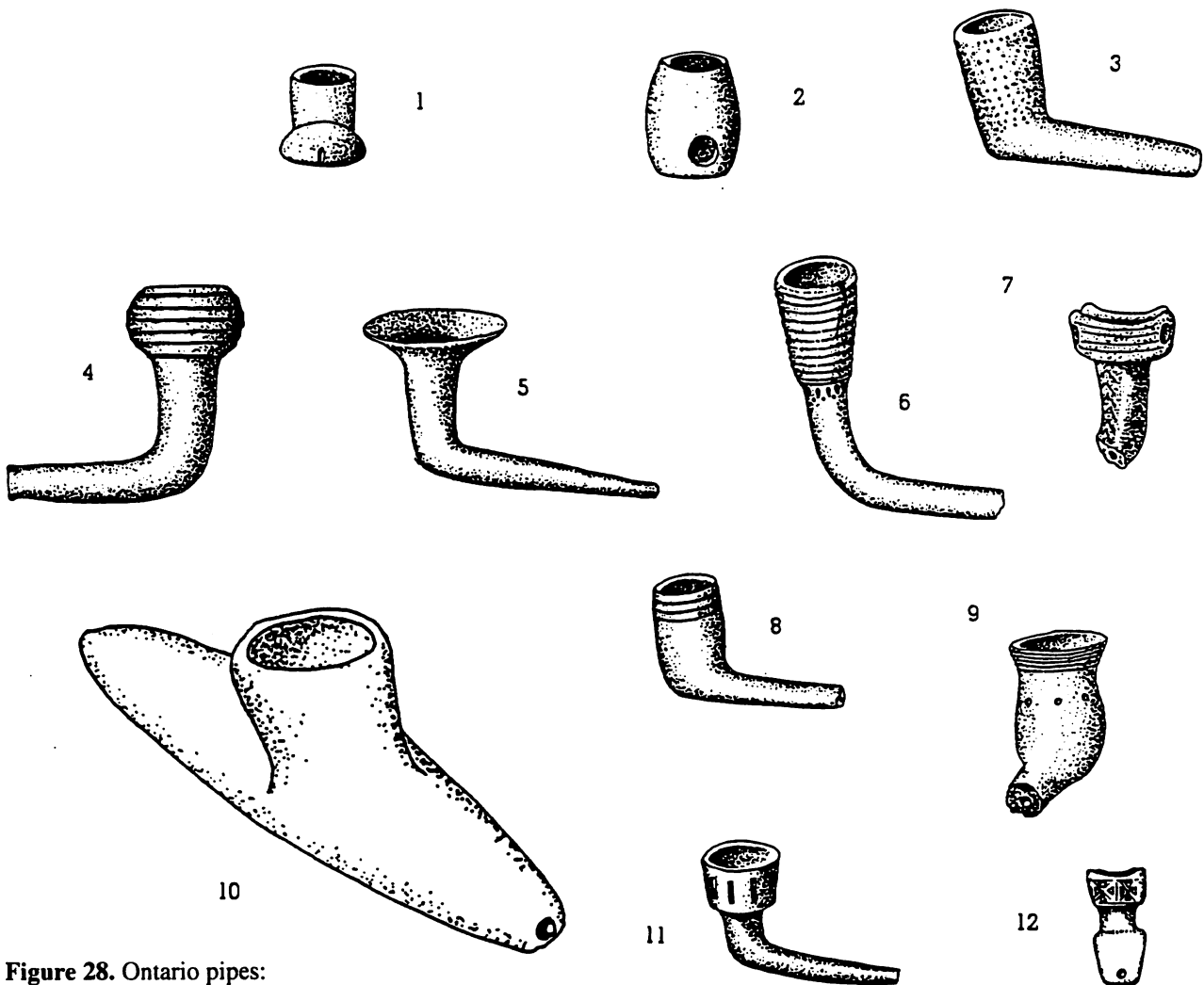


Figure 27. Selkirk

This pottery is quite distinctive. The bodies of Selkirk vessels are fabric impressed, producing an easily recognisable textile impression over the whole body of the vessel. A row of punctates usually occurs just below the lip, which may be decorated with cord-wrapped stick impressions. Like many other Late Woodland vessels, Selkirk pots tend to be globular with everted (flaring) rims above a slightly constricted neck.

**Prehistoric and Contact Period Pipes**

Stone and pottery pipes are frequently found on archaeological sites in Ontario which date from the end of the Late Archaic until well into the Contact Period. During those almost four thousand years, the way in which pipes were made, the materials used and the shapes and decorations changed considerably, providing archaeologists with a good temporal yardstick. You are unlikely to find whole pipes during a surface survey. However, by becoming familiar with the complete objects, you may be able to recognise pipe fragments when you come across them. The pipes illustrated below are a sample of the many types which have been found in Ontario.



**Figure 28.** Ontario pipes:

- |  |                                  |
|--|----------------------------------|
| 1. Stone Middle Woodland "Penis Effigy" pipe | 2. Stone Late Woodland pipe      |
| 3. Younge Phase pipe                         | 4. Bulbous Ring pipe             |
| 6. Conical Ring Bowl pipe                    | 5. Plain Trumpet pipe            |
| 9. Decorated Vasiform pipe                   | 7. Coronet pipe                  |
| 11. Mortice pipe                             | 8. Iroquois Ring pipe            |
|  | 10. Laurel Platform pipe         |
|  | 12. Stone "Micmac" historic pipe |

## INTRODUCTION TO 19th CENTURY ARCHAEOLOGICAL ARTIFACTS

A wide variety of artifacts can be found on 19th century sites. Certain artifact classes, like ceramics, are so varied and complex that no person can completely master the subject. The following descriptions are not intended to be comprehensive. As such, they deal only with artifacts that are commonly found on 19th century sites, and give a few pointers about terminology and dating. For detailed information, users of this manual are encouraged to consult the reference books in the reading list. Some historic artifact types and characteristics are almost impossible to adequately describe or illustrate: there is no substitute for "hands on" experience.

### Nails

Nails come in a wide variety of sizes and function forms. The basic way in which nails are made has changed through time.

**Wrought nails** are hand-made, with faceted or hammered "rose" heads, and all sides tapering to a point. This was the most common nail type before about 1830, and continued in use even after this date (Figure 29:a).

**Cut nails** represent a more mechanized way of making a nail. The nails were "cut" from flat sheets of iron; hence, the nail is of even thickness when viewed from the side, not tapered on all sides like hand-made nails. The head is usually square and flat. Invented about 1790, cut nails were in common use from the 1830s until the 1890s (Figure 29:b).

**Wire nails** are essentially the modern-style nail, with a round cross-section and round head. Developed in the 1850s, they did not begin to displace the cut nail until the 1890s (Figure 29:c).

**Horseshoe nails**, of course, were not for construction. Horseshoe nails have distinctive, flat trianguloid heads.

### Window Glass

There were two common methods of making window or "flat" glass before industrial improvements developed in the late 19th and early 20th centuries. The **crown glass** method involved spinning out molten glass into circular sheets, which were then cut into panes. In the **broad glass** method large tubes or cylinders were blown, cut down one side, and then opened flat to form a large sheet. In practice, it is impossible to differentiate these two manufacturing methods from small sherds.

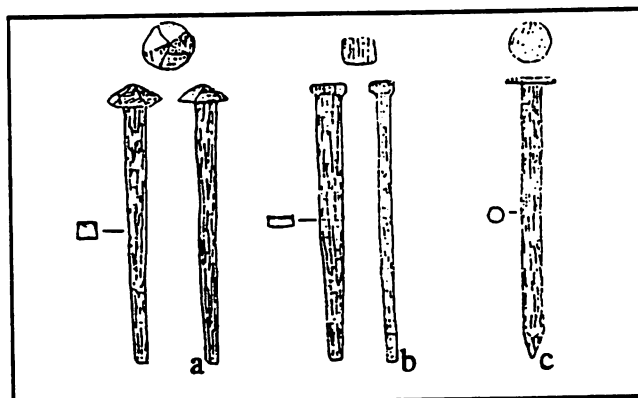


Figure 29. Basic Nail Types

A very visible change in window glass took place in the 1840s, however. In part this was due to an English tax on window glass based on weight: before the tax was lifted in 1845 manufacturers made window glass as thin as possible (usually by the crown method) to minimize the effects of this tax. As a result, most window glass made before the mid-1840s tends to be less than 1.6 mm thick, while window glass made after this date is thicker. While this is not true for every sherd, a sample of window glass dating to the first half of the 19th century should have an average thickness of 1.1 to 1.4 mm compared to about 1.7 to 2.0 mm from the last half. To get accurate measurements it is necessary to measure the thickness with a set of vernier calipers. If vernier calipers are not available, take a series of sherds (e.g. 5 or 10), measure the thickness of the stack with an ordinary ruler, and then divide the number by the sample size: the resulting figure should give an approximation of the average sherd thickness.

## **Bricks**

Brick is a basic construction material and comes in a large number of sizes, colours and shapes. During the 19th century, the United States, Canada and Britain adopted a variety of different standard sizes that may at times relate to the use of the brick. There has been relatively little research done on Ontario bricks; furthermore there appears to have been considerable local variation in brick-making practice. As a result, only a few pointers on dating brick can be given here. Generally, early 19th century bricks are thin, flat and rectangular. By the mid-19th century, they are thicker, and may have impressed rectangular or oval "frogs". These are usually badly impressed (i.e. have rough edges). By the end of the 19th century, the brick industry became highly mechanized and the bricks are uniform in shape, size and colour with sharp edges and well-defined impressed rectangular frogs often with raised letters representing the manufacturer's name. In Ontario, "white" brick (in fact a yellow colour) did not become commonly used until the mid-19th century.

## **Smoking Pipes**

The most common smoking item on 19th century sites is the stemmed pipe made from unglazed white clay. Other pipe types, although these are not common, include those made of red clay, porcelain, stoneware, briar, and meerschaum.

White clay pipes were widely made in the 19th century, declining in use by the last two decades as briar pipes and cigarettes became the choice of smokers. Most pipes found in southern Ontario were made in either Quebec or Scotland, with occasional examples from English, Dutch, French and American makers. The maker's name may be impressed on the stem with the city of manufacture on the opposite side, although this did not become common practice until the 1840s. Dates and names of the

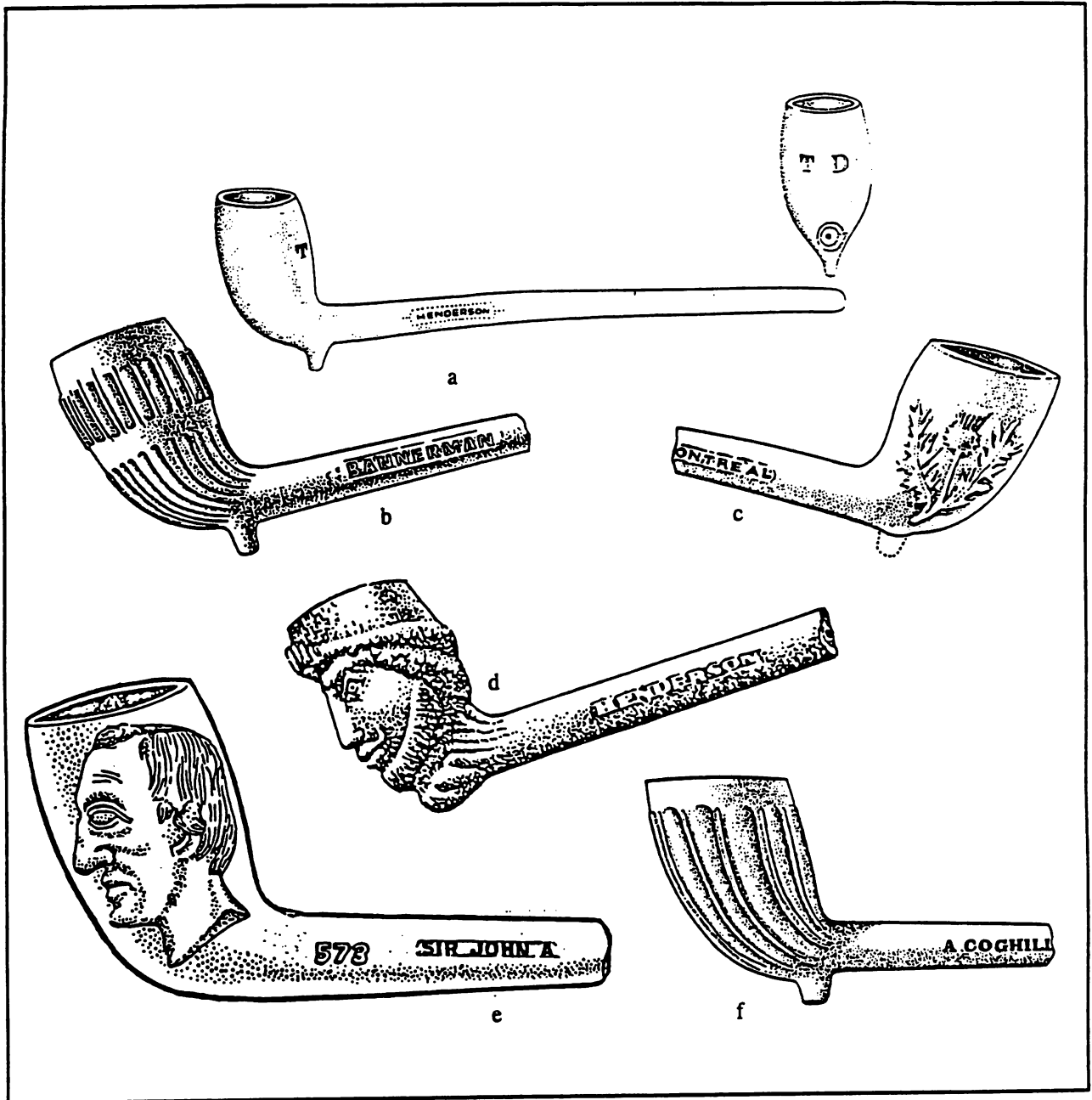


Figure 30. Some Popular White Clay Pipe Types

most commonly observed makers are listed in Table 1. The U.S. McKinley tariff act of 1891 required the country of origin to be marked on imported items: before this date generally only the city of origin is given. Sometimes the bit or mouth piece has a brown lacquer or glaze to prevent the smoker's lips from sticking to the porous clay. In the 17th and 18th centuries the bore diameter decreased in size through time, forming a useful dating tool for sites of this period. For the 19th century, however, bore diameter has no significance for the dating of sites.



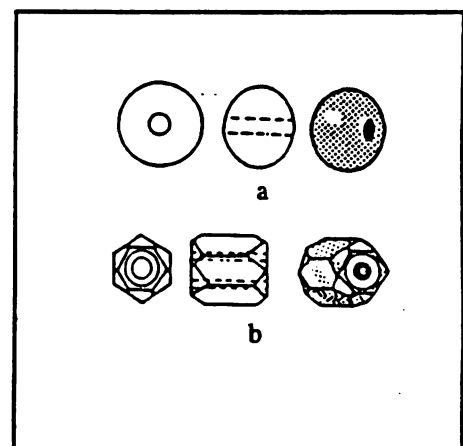
Bowls come in a wide variety of styles. One popular type is the "TD" (Figure 30:a), where the initials TD are placed on the back of the bowl and sometimes on the spur. While this style was developed in the 18th century -- the initials are thought to be those of the original maker -- by the 19th century many different companies were producing the TD pipe. Other bowls may be ribbed or fluted (Figure 30:b,f). Another popular class is the "faced" pipe (Figure 30:d), with a human head forming the bowl. Pipes sometimes had commemorative or patriotic themes (Figure 30:c,e), including bowls with Masonic symbols, Canadian (e.g. crossed snowshoes), or old country motifs (e.g. the Irish shamrock, the Scots thistle).

**Table 1.**

MAKER	CITY	DATES
Scotland		
McDougall	Glasgow	1846-1967
William White	Glasgow	1805-1955
Davidson	Glasgow	1861-1910
A. Coghill	Glasgow	1826-1904
Murray	Glasgow	1830-1861
Thomas White	Edinburgh	1823-1876
Quebec		
Henderson	Montreal	1847-1876
Bannerman	Montreal	1858-1907
W.H.Dixon	Montreal	1876-1894
W. and D. Bell	Quebec	c.1862-1881

**Glass Beads**

Anyone who is interested in glass beads should become familiar with the typological system developed by the Kidds and extended by Karklins. There are a number of ways to make beads. The two most common methods are wire wound (viscous glass is wrapped around a wire) and drawn (a long tube that has been drawn out from a bubble of viscous glass is cut into segments). The two most popular necklace-size beads in the 19th century are round beads of wire wound glass (Figure 31:a) (usually pink, white, blue, or amber) and drawn beads with cut facets (Figure 31:b) (usually these are blue with a pale or whitish inner core).



**Figure 31.** Two common 19th century bead types

## Buttons

Buttons can be made from a wide variety of materials including bone, metal, shell, rubber, horn and glass. Only a few of the more popular button types are described here.

**Bone buttons** (Figure 32:a), often simply turned discs with 4 holes, were commonly used in the 19th century for underclothing. Typically 1 to 2 cm in diameter, bone buttons often retain the wood-like grain of the bone and so are sometimes misidentified as wood. By the last quarter of the 19th century bone buttons began to be replaced by those made of "vegetable ivory", a substance obtained from the shell of a large tropical nut. Vegetable ivory is a material usually not well preserved in archaeological sites.

**Shell or "pearl" buttons** (Figure 32:b,c), fashioned from discs of fresh-water or sometimes even exotic tropical shells, were often used as shirt buttons, especially before the development of the much less expensive "agate" button in the 1840s.

**Agate** (Figure 32:d,e,f). What were called "agate" buttons are similar in colour and size (usually about 10 mm) to modern shirt buttons. The "agate" was in fact a type of pressed ceramic powder made using the so-called "Prosser" process patented in 1840. Agate buttons became widely distributed in Canada by the late 1840s and are common on sites from this

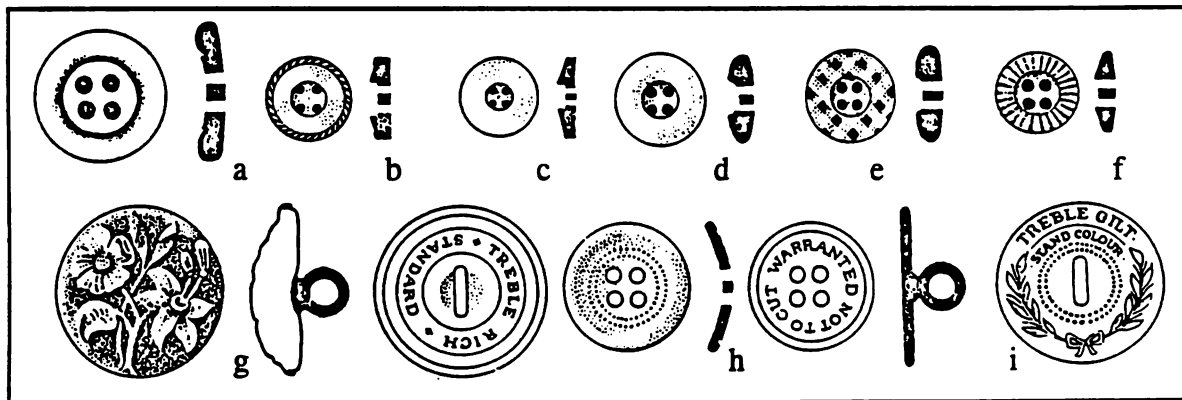


Figure 32. Some Common Button Types

time on. Usually of a white-bodied material, agate buttons are sometimes decorated with printed designs, the most popular being a calico-like pattern. White agate buttons so much resemble modern plastic shirt buttons that they are sometimes confused with them. A distinctive feature of agates is that, as a result of the moulding process, the back of the button often has a slightly dimpled appearance.

**Metal** (Figure 32:g,h,i). Large brass buttons with shanks were often used on coats. While such coat buttons were often gilded, this is usually missing on archaeological specimens. In the first quarter of the 19th century metal coat buttons were usually flat (Figure 32:i), with a metal eye soldered on the back. Often words like "best gilt" or some other profession of quality are impressed on the back. By the 1820s other types of metal coat button were becoming more popular, including the "Florentine", composed of several layers of metal covered with fabric. Another metal button type is a disc, usually with four holes, used for suspenders and undergarments similar to the bone buttons.

## Guns

Guns were valuable items and rarely discarded: if broken, they were repaired; if outmoded, they could often be refitted. As a result, on non-military archaeological sites, gun parts are rare. The most visible archaeological evidence for armaments are the expendables: flints, ball, and cartridges.

**Gunflints.** There are three common types of gunflints. In the 18th century the major type was the spall flint (Figure 33:a), characterized by an upper surface consisting of a positive bulb of percussion. These may range from black to honey-coloured. Less common is the "French" blade flint. Made of honey-coloured flint, this type, unlike the spall flint, was produced from a prismatic blade retouched along one edge. By the early 19th century these two types had been supplanted by the English blade flint (Figure 33:b). The English type is made from a black glossy flint, and produced by segmenting a parallel-sided blade into rectangular flints. As a result, the upper or dorsal surface is characterized by a facet or chamfer on each edge. By the 1830s the use of percussion caps began to displace flintlocks, although they continued to be in common use for the next two decades. Both percussion guns and flintlocks were usually "muzzle loaders", using round lead shot or ball. It was not until the late 1860s that the self-contained metal cartridge loaded into a breech started to become popular.

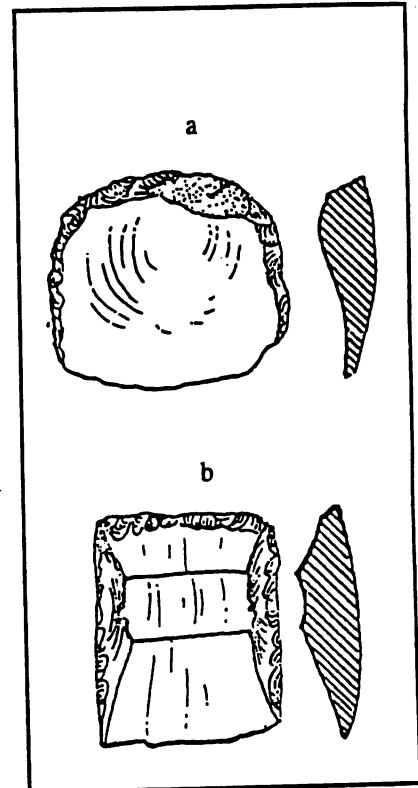


Figure 33. Gun Flint Types

## Glass

The best place to start with the identification of glass containers and tableware is the Parks Canada Glass Glossary mentioned in the reading list.

**Glass Containers.** Glass bottles occur in a wide variety of shapes, sizes and colours. In archaeological surface collections, bottles are usually highly fragmented, thus making identification difficult. The lip area or "finish" and the base may be found relatively intact, however, and examination may provide some dating clues. Bases should be examined for a "pontil mark", a rough-edged ring or scar, where the bottle was attached to a rod during its manufacture. By about 1850 a new method of making bottles (the "snap case" had been developed, which left no pontil mark on the base. By 1870 the use of the snap case became almost universal, so after this date the pontil mark is no longer seen. By the turn of the century

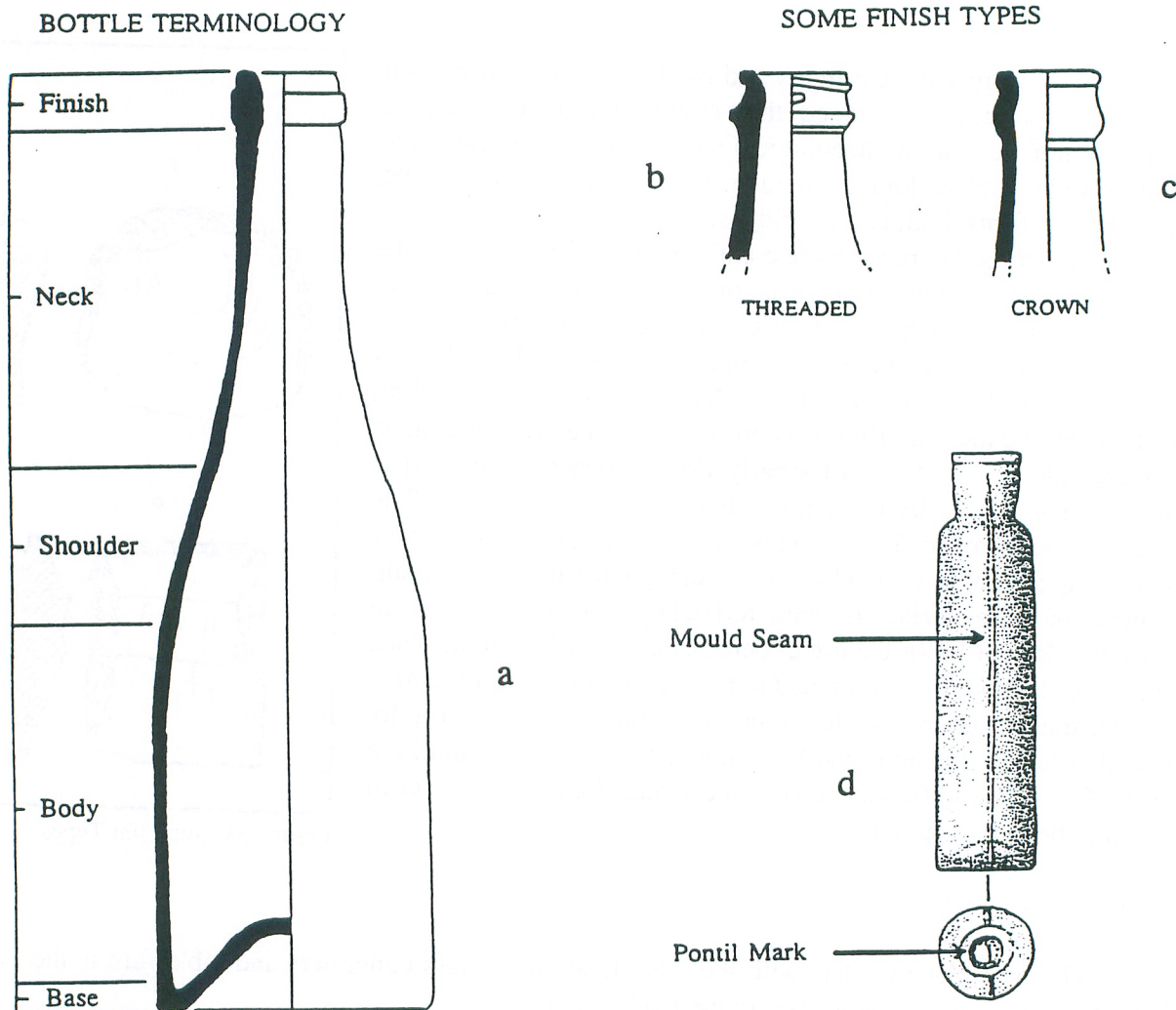


Figure 34. Some glass bottle terminology

automatic bottle making machines were being developed. The best known of these was the Owens machine, patented in 1903 and in wide use by the 1910s. Most bottles were made in a mould, which leaves seam marks on the outer surface (Figure 34:d). A feature of 20th century automatic machines was that the vertical mould seam extended over the bottle lip; in the 19th century bottle tops were usually finished by hand so that the seam did not extend to the lip (Figure 34:d). Several other features of lips can provide clues to the date of the bottle: the "crown" (Figure 34:c) finish (found on the modern glass soda pop bottle before they became nearly extinct) was developed in 1892; threaded (screw-top) finishes (Figure 34:b) were developed in the 1850s but only became common in the 20th century. Finally, most 19th century medicine bottles were made of a clear glass, although they usually had a slight greenish or bluish tint owing to iron impurities. From about 1880 to World War I manganese was often used to "decolourize" glass, but when exposed to sunlight the manganese turns a distinctive amethyst.

**Glass Tableware.** Glass was widely used in the 19th century for the manufacture of tableware. On archaeological sites, tumblers are the most frequently encountered item, although stemmed ware (e.g. wine glasses), decanters, cruets and glass salt cellars are also found. As with glass containers, tumblers from the first half of the 19th century may have pontil marks on the base, although on finer examples the marks are ground off leaving a shallow concave depression. In contrast, late 19th century tumblers usually do not have pontil marks. Largely owing to technical innovations made by Americans, pressed glass items of various forms (plates, compotes, goblets), often with intricate decoration, were very popular in Canada from the 1870s to the 1920s. There are several reasons for this. American-style pressed glass was quite inexpensive compared to British-made imports. As well, there was some Canadian production of pressed glass, one notable early factory being the Burlington Glass Works in Hamilton (1874-1897). Canadian-made patterns, although these are often the same as American ones, can be identified by reference to the Thomas King book (see reading list).

### **Utilitarian Ceramic Wares**

Several ceramic wares were used in the 19th century to produce utilitarian crockery for the kitchen and dairy. Typical forms include open-mouth crocks (e.g. cream pots, milk pans, butter pots), jugs, bottles and preserve jars. Many examples are illustrated in the books by Newlands and Webster mentioned in the reading list.

**Coarse Earthenware** is usually a clay that fires red ("redware") or a buff colour. Surfaces may have an irregular lead glaze. Since such coarse earthenware was relatively easy to make, small-scale manufacturers had sprung up in Ontario by the early 19th century. By the end of the century this industry was in decline as containers of other materials (e.g. glass) became more popular.

**Stoneware** is fired at a higher temperature and has a less porous body than does earthenware. Ceramic stoneware bodies tend to have a grey to light brown colour. The exterior often has a salt-glaze which gives it a dimpled or "orange-peel" effect. If the crock was intended to hold a liquid, the interior may have a thick dark brown coating, known as an Albany slip. By the late 19th century some stoneware items were coated on the exterior with a thick white or brown "Bristol" glaze. Stoneware was not made in Ontario until 1849. As result, stoneware is not common on sites before this date and when it occurs it tends to be found in small imported containers (e.g. boot blacking polish bottles). Canadian-made stoneware crocks sometimes have an impressed maker's name, coloured with a blue pigment. These marks can be easily dated by consulting reference books. Occasionally such crocks have the name of a storekeeper or grocer, rather than that of the maker.

**Yellowware and Rockingham.** Yellow-bodied ceramics became popular in the 1840s and have continued to be made ever since then. Typical forms are bowls and jugs. These have a clear glaze and are often decorated with bands of slip (see "dip" ceramics below). Sometimes the glaze is a mottled brown, in which case the ceramic is termed "Rockingham".

### **Tableware Ceramics**

Tableware ceramics usually have a white body. Most are earthenware, which has an opaque body. Porcelain, which is translucent when viewed against a strong light, is less common because it was

so much more expensive. Earthenwares can be divided into a number of wares and types, which may have specific dates. To make accurate identifications it is important to get some "hands-on" advice from people who are familiar with 19th century ceramic material. Unlike utilitarian wares, there was very little production of tableware ceramics in Canada: most were imported from Britain. Tablewares often have the name of the manufacturer stamped or printed on the underside: the book by Godden in the reading list provides a guide to the dating of such marks. As with pipes, a maker's mark bearing the country of origin usually indicates a date of 1891 or later (McKinley tariff act).

### White Earthenware Types

**Creamware** has a slightly yellow glaze. The glaze itself, especially on the underside of ceramic pieces tends to have a slightly rippled or wavy appearance. Most creamware was sold as undecorated dinnerware. Creamware was developed in the 1760s and had declined in popularity by 1830.

**Pearlware** has a slightly bluish glaze owing to the addition of cobalt. Like creamware, it has a slightly rippled glaze. Pearlware was often decorated by printing or painting. First made in 1779, pearlware declined in importance by the 1830s.

**Whitewares.** Pearlware and creamware were displaced by the refined whitewares, popular from the 1830s until the present day. Refined white ware has a nearly colourless glaze, unlike the yellowish tint of creamware or the bluish one of pearlware. Furthermore, the glaze found on whitewares is usually much more smooth and even.

**Ironstone or white granite** generally has a harder and thicker body than the ordinary white earthenwares. The glaze is often slightly blue, owing to the addition of cobalt, but smooth unlike the earlier pearlwares. White ironstone was introduced in the 1840s. During the 1870s to 1880s it was the most popular type of tableware ceramic in Ontario. White ironstone rarely has coloured decoration. Instead, it often has raised moulded designs. The most popular and enduring of these was the "wheat" pattern, which, as the name suggests, has heads of wheat moulded in a design on the rim. The wheat pattern was developed in 1858 and continued to be produced in the early 20th century.

### Decorative Methods

**Edged.** Plates and other tableware were often decorated by moulding and colouring the edge. This method of decoration was introduced about 1780. Typically, blue was used to colour the edge but green was often used until the 1830s. Red edge was occasionally used about the 1830s. The moulding on the edge changed through time. Before about 1840 most edged ceramics had a scalloped or undulating edge. After 1840 the edges did not normally have any scallops. This unscalloped edgeware was popular until the 1870s.

**Painted.** Inexpensive teaware was often painted with floral motifs. On pearlware teaware made before about 1830 the floral designs were painted either in all blue or in a polychrome palette featuring blue, brown, yellow and green ("early palette"). By the 1830s chrome-based pigments became popular, expanding the variety of colours appearing on painted ware ("new palette") to include black and red. Painted teaware remained popular until the 1870s.

**Sponged.** In another method of inexpensive decoration, a sponge was used to decorate the

surfaces of ceramic items and give them a mottled effect. The most common type is an all-over blue sponging but other colours may occur, sometimes in combination. While sponging appeared in combination with painting in the 18th century, all-over sponging only became popular in the 1840s. The sponge technique remained popular until the 1870s.

**Stamped.** A variety of the sponged method was stamping. With this technique, a sponge was cut into simple designs (e.g. geometrical shapes, leaves, flowers). These stamps were then loaded with pigment and repeatedly dabbed around the ceramic to form a coarse but often pleasing design. This technique was used from the 1850s to the early 20th century.

**Banded or Dipt** was a method that involved the use of coloured "slips" (liquid clay) to decorate the surface of such vessels as bowls, pitchers and mugs. Typically the slip is a blue, black, brown or earth colour, often appearing in combination. The most common design consists of bands encircling the ceramic items, but swags, mocha (a seaweed-like motif), and "cat's eyes" sometimes appear. Dipt ware can be differentiated from painted ware since slip decoration adds a certain thickness, thus raising the decoration slightly above the rest of the body. Dipt ware was made throughout the 19th century. Examples from the first half of the century are fairly elaborate with multiple colours; most dipt ware from the last half of the century tends to be plainer, often consisting of nothing but bands of blue slip.

**Printed or Transfer-Printed.** A popular method of decorating more expensive ceramics was printing. The method involved the use of an engraved plate, which was loaded with pigment. A paper was then rubbed on the engraving to charge it with pigment and the design then transferred to the ceramic. Before the late 1820s most printing was done only in the colour blue. Before about 1815 blue-printed designs were normally oriental in nature. From about 1815 to 1830 designs tended to feature pastoral subjects, often densely printed in what is sometimes called "old blue". In the 1830s and 1840s the blue became lighter in hue and the designs more open. At the same time, the range of colours used in printing expanded with brown, black, red, green and purple becoming popular. From about 1850 to 1890 only the colours blue, black and brown are common. In the 1890s and later a wide variety of colours were in use. The well-known willow pattern first became popular in the 1830s.

**Flow.** A variant of printing is known as flow, flown or flowing colours. While the design is printed, usually in blue, the pigment has been allowed to "flow" into the glaze, thus giving the pattern a misty appearance. Briefly popular in the late 1840s and 1850s, flow ware was revived in the 1890s.

## Coins

Information on Canadian coins and tokens can be easily found in the catalogues periodically published by Charlton International Inc. and by J.A.Haxby and R.C.Willey. Decimal coinage (dollars and cents rather than pounds, shillings and pence) became the standard for Canada in 1858. In the first half of the 19th century there was a shortage of coinage, so almost any round flat brass or copper disc could circulate as a half-penny. There was an even greater shortage in silver: no Canadian silver coinage whatsoever was produced before 1858, so British, American and Spanish coinage was often used.

<b>QUICK GUIDE TO DATING 19th CENTURY SITES</b>					
<b>Type</b>	<b>Before 1830</b>	<b>1830-1845</b>	<b>1845-1870</b>	<b>1870-1890</b>	<b>After 1890</b>
Nails	Wrought	Cut	Cut	Cut	Wire
Window Glass	<1.6mm	<1.6mm	>1.6mm	>1.6mm	>1.6mm
Ceramic Wares	Pearlware Creamware	Whiteware	Whiteware Ironstone	Ironstone common	"Semi-porcelain"
Edge	Blue and Green scalloped	Mostly blue scalloped	Blue unscalloped	Not common	Not common
Painted	All blue or "old" palette	"New palette"	"New palette"	Not common	Not common
Sponged	Not found	Rare	Common	Becomes rare	Rare
Printed	Blue only	Blue, Brown, Black, Red, Purple, Green	Blue, Brown, Black	Blue and Brown popular in 1880s	Many colours
Flow	Not found	Not found	Popular	Not common	Revival of Flow
Yellowware	Not found	Introduced in 1840s	Present	Present	Present
White Ironstone	Not Found	Not Found	Increasingly common	Common	In decline
Guns	Flintlocks; Percussion device invented in 1807	Percussion; Flintlocks in decline	Percussion; rise of Cartridge in 1860s	Cartridge	Cartridge
Glass Bottles: Bases	Pontil mark	Pontil mark	Pontil mark No pontil mark	No pontil mark	No pontil mark
Glass Bottles: Lips					"Crown" finish; threaded lips common; seams over lips
Other					U.S. McKinley tariff act of 1891 requires Country of origin to be marked on goods.



## READING LIST

### Books

Ashmore, Wendy and Robert J. Sharer

1988 *Discovering Our Past: A Brief Introduction to Archaeology*. Mayfield Publishing Company, Mountain View, California.

A clearly written general guide to archaeological techniques and processes. This book is well illustrated with clear drawings and useful photographs from sites around the world

Chapman L.J. and D.F. Putnam

1984 *The Physiography of Southern Ontario*, Third Edition. Ontario Geological Survey Special Volume 2. Ontario Ministry of Natural Resources, Toronto.

This is a much quoted and valuable text. Following summaries of the bedrock geology, glacial geology and surface features, the physiography of Southern Ontario is described in fifty-five regions. The text is clear, copiously illustrated and easy to read. A 1:600,000 scale map in a back pocket of the book is extremely useful. Not only is this a necessary source for anyone undertaking archaeological work in southern Ontario, but it's a handy book to have in the car to make long, cross province trips more interesting. It is also very, very cheap (from the Ontario Government bookstore).

Collard, Elizabeth

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

Now into its 3rd edition, Collard's history of the Canadian ceramics trade is a classic.

Dowman, E.

1970 *Conservation in Field Archaeology*. Methuen & Co., London.

Eley, Betty E. and Peter H. von Bitter,

1989 *Cherts of Southern Ontario*. Royal Ontario Museum, Toronto.

The most comprehensive assessment available of the cherts of Southern Ontario.

Ellis, Chris J. and Neal Ferris (Editors)

1990 *The Archaeology of Southern Ontario to A.D. 1650*, Occasional Publication No. 5, London Chapter, OAS, London, Ontario.

This volume provides a detailed and up to date summary of the archaeology of southern Ontario. It is well illustrated and has a comprehensive bibliography. It is a must for anyone contemplating archaeological work in Ontario.

Ferris, Neal

1986 Buttons I Have Known. In, *Studies in Southwestern Ontario Archaeology*. Occasional Publication No. 1, pp. 98-107, London Chapter, OAS, London, Ontario.

Illustrated with many buttons found on Ontario archaeological sites.

Fitting, James E.

1975 *The Archaeology of Michigan: A Guide to the Prehistory of the Great Lakes Region* (Second Edition), Cranbrook Institute of Science, Bloomfield Hills.

As the title of this book suggests the focus of this book is Michigan, not Ontario. Nevertheless, it is well worth owning since much of the text is applicable to Ontario.

Godden, Geoffrey A.

1964 *Encyclopaedia of British Pottery and Porcelain Marks*. Bonanza Books, New York.

The standard guide to the identification of marks on British ceramics.

Gurcke, Karl

1987 *Bricks and Brickmaking: A Handbook for Historical Archaeology*. The University of Idaho Press, Moscow, Idaho.

Harris, R. Cole and G.J. Mathews

1987 *Historical Atlas of Canada. Vol 1. From the Beginning to 1800*. University of Toronto Press, Toronto, Ontario.

The dynamic graphics, accurate maps and readable text are a valuable tool for viewing archaeological discoveries in the broader context of Canadian cultural development.

Hodges, Henry

1981 *Artifacts: An Introduction to Early Materials and Technology*. Humanities Press, New Jersey. John Baker, London.

This book is a wonderful source of information. Henry Hodges describes the processes and techniques of manufacture of a wide variety of artifacts, covering everything from stone tools to ceramic glazes. He also provides a detailed section describing some of the methods which can be used to examine artifacts of various materials. Although this book is quite detailed, the easy writing style and clear organization of each section makes it easy to use.

Jones, Olive and Catherine Sullivan

1985 *The Parks Canada Glass Glossary*. Parks Canada, Studies in Archaeology, Architecture and History.

This glossary is an indispensable tool for the identification of glass.

Joukowsky, Martha

1980 *A Complete Manual of Field Archaeology: Tools and Techniques of Field Work for Archaeologists*. Prentice-Hall Inc. Englewood Cliffs, New Jersey.

This is a complete field manual. This one not only provides well explained field techniques, but goes into the why's and how's of each application.

Justice, Noel D.

1987 *Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States*. Indiana University Press, Bloomington and Indianapolis.

Although this volume deals primarily with areas to the south of Ontario, the descriptions of various artifacts which are found in our region are useful.

Karklins, K.

1985 Guide to the Description and Classification of Glass Beads. In, *Glass Beads*, pp. 85-123, Studies in Archaeology, Architecture and History, National Historic Parks and Sites Branch, Parks Canada, Environment Canada.

Kidd, K.E. and M.A. Kidd

1970 A Classification System for Glass Beads for the Use of Field Archaeologists. *Canadian Historic Sites: Occasional Papers in Archaeology and History* 1, pp, 45-89.

The articles by the Kidds and by Karklins are guides to glass bead classification: they do not deal with the chronology of beads.

King, Thomas B.

1987 *Glass in Canada*. Boston Mills Press, Erin.

King's book is largely a history of glass making in Canada. The appendix provides a useful illustrated glossary as well as photographs of pressed glass patterns identified as being Canadian-made.

Mason, Ronald J.

1981 *Great Lakes Archaeology* Academic Press, New York, London, Toronto.

This is a valuable book. By examining the whole Great Lakes area, Mason provides a perspective which is often lacking in more locally focussed works. One can view local traditions in the light of broad regional trends through this approach. The numerous high quality photographs are extremely valuable and his free ranging discussions are lively and thought provoking. Although some details have changed, for instance Mason discusses the "thought to be early" Satchell Complex as Late Paleo Indian, whereas we now believe it to be Late Archaic, it is still a worthwhile investment.

Munsey, Cecil

1970 *The Illustrated Guide to Collecting Bottles*. Hawthorn Books, New York.

Of the many books that have been written to assist bottle collectors in identifying their specimens, Munsey's is one of the better written and illustrated.

Newlands, David L.

1979 *Early Ontario Potters: Their Craft and Trade*. McGraw-Hill Ryerson Press, Toronto.

Well-illustrated survey of earthenware and stoneware manufacturers in Ontario.

Noel Hume, Ivor

1969 *A Guide to Artifacts of Colonial America*. Alfred A.Knopf, New York.

While it mainly deals with pre-1800 artifacts, this is an indispensable book written by an eminent historical archaeologist.

Ritchie, William A.

1971 *A Typology and Nomenclature for New York Projectile Points*. New York State Museum and Science Service, Bulletin No.384. The University of the State of New York, State Education Department. Albany, New York.

This has long been the primary reference for projectile points in the lower Great Lakes area. Although new projectile point types have been defined, and much additional information has come to light in the twenty years since it was published, this remains a very valuable source of information. Use with care, and be careful to compare Ritchie's assessments with more up-to-date scholarship.

Renfrew, Colin and Paul Bahn

1991 *Archaeology: Theories Method and Practice*. Thames and Hudson, London

This is simply the best general textbook on archaeological method and theory that I have ever seen! The text is clear and concise yet detailed. The illustrations and photographs are well executed and always appropriate to what is being discussed in the text. This book is encyclopedic in scope, but is neither dry nor boring. Renfrew uses examples from both classic and little known sites from around the world to enhance the text. Complex theoretical issues are explained with a clarity and precision which their originators would do well to emulate. Get it for Christmas.

Thomas, David Hurst

1979 *Archaeology* Holt, Rinehart and Winston, New York, Toronto, London.

If you can find a copy of this book, grab it. David Hurst Thomas has brought a breath of fresh air to a world of archaeology text books that is often a little on the dull side. As he says in his prologue, "Despite what some may tell you, archaeology is more than concepts, theory, methods and typology. Archaeology is also dust and discouragement. But above all archaeology is - or should be - fun." By using his own experiences, often writing in the first person, Thomas manages to cover a lot of practical and theoretical ground without ever losing sight of that basic element.

Walker, Iain

1983 Nineteenth-Century Clay Tobacco-Pipes in Canada. In, "The Archaeology of the Clay Tobacco Pipe, VIII: America." *BAR International Series* 175, pp. 1-88. Oxford, England.

The late Iain Walker (a long-time OAS member) published many valuable works on clay tobacco pipes. This reference updates and revises an earlier article he had published in *Ontario Archaeology* No. 16.

Webster, Donald

1971 *Early Canadian Pottery*. McClelland and Stewart, Toronto.

Wright, J.V.

1972 *Ontario Prehistory: An 11,000 year Archaeological Outline*. National Museums of Canada, Ottawa, Ontario.

Copies of this book are still available through most major museum bookstores. As the title suggests, it is a thumbnail sketch of Ontario prehistory painted with a broad brush. It is a bit out of date in many areas, but, to my knowledge at least, no one has yet produced anything to supercede it.

## **Journals and Newsletters**

Most site specific reports, regional syntheses, artifact studies and technical or theoretical discussions are published in Journals, Series Publications or Newsletters. Those indicated below contain numerous articles about, or of relevance to, Ontario archaeology.

### **Journals**

Ontario Archaeology, Manitoba Archaeological Journal, The Mid-Continental Journal of Archaeology, Wisconsin Archaeologist, Man in the Northeast, Canadian Journal of Archaeology, American Antiquity, Historical Archaeology, Michigan Archaeologist, Minnesota Archaeologist, Plains Anthropologist, Pennsylvania Archaeologist, Ohio Archaeologist

### **Reports**

Annual Archaeological Report, Ontario (New Series).

### **Newsletters**

Arch Notes (OAS), Kewa (London OAS), Ottawa Archaeologist (Ottawa OAS), Profile (Toronto OAS), Squirrel County Gazette (Windsor OAS), The Thunderer (Niagara OAS), Wanikan (Thunder Bay OAS)

### **Series Publications**

Anthropological Papers, Museum of Anthropology, University of Michigan. National Museums of Canada Anthropological Series Bulletins. National Museums of Canada, Archaeological Survey of Canada, Mercury Series. Bulletin of the New York State Archaeological Association. Toledo Aboriginal Research Club Bulletin.

### **Aboriginal Information**

#### *Akwesasne to Wunnumin Lake: Profiles of Aboriginal Communities in Ontario*

This publication is a comprehensive guide to native communities in Ontario. Profiles and demographic details of 116 Aboriginal Communities are provided. Each description includes historical notes, details of the principal industries, educational and community facilities and a map.

Copies are available from:           The Ontario Government Bookstore  
Publications Ontario  
Main Floor, 880 Bay Street,  
Toronto, Ontario M7A 1N8

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## GLOSSARY OF TERMS

### **A.D.:**

Abbreviation of the latin Anno Domini - of the Christian Era, or years past since the birth of Christ.

### **Adena Culture:**

A term used to describe the development of an Early Woodland tradition in the Ohio River Valley at approximately 1000 B.C. This tradition is characterized by distinguishable ceramics, use of domesticated plants for food, production of ceremonial blades for inclusion with burials and development of permanent settlements. There is evidence to suggest that this culture had a considerable impact on other indigenous populations in northeastern North America during this time, including areas in eastern Ontario along the Ottawa and St. Lawrence Valleys.

### **Adze:**

A stone tool shaped in the form of an axe and generally manufactured from shales and slates. This tool is designed to be mounted on a wooden handle so that the blade is horizontal. The tool is thought to be used in the working of wood including the manufacture of dug out canoes.

### **Archaeological excavation:**

The process and techniques used to examine and record locations of former human settlement or activity.

### **Archaeological fieldwork:**

Any activity which involves the search for, examination or removal of archaeological materials.

### **Archaeology:**

The study of past cultures, usually through the materials remains they left behind.

### **Archaic:**

The Archaic period is a term used to designate cultural developments in eastern North America which generally took place between 7,000 B.C. and 1,000 B.C.

### **Artifact:**

A product of human activity. Artifacts may range from manufactured materials such as stone tools and ceramics to the by products of hunting, such as bone and other refuse from animals butchered for food.

### **A.S.L.:**

Above sea level (calculated from an internationally recognised standard at Greenwich, England)

### **Association:**

Objects found together are said to be "in association" .

**Atlatl:**

A spear throwing stick

**Awl:**

A long narrow tool with a point at one end. These tools are generally manufactured from bone and were used in punching holes in hides and other materials.

**Banner stones:**

Stone tools manufactured from stone with bands of different colours. These tools are generally polished and were shaped like a saucer and used as counter weights for atlatls.

**B.C.:**

Before Christ. This term is used by archaeologists to denote the number of years an event occurred before the birth of Christ. An event which occurred in 2,500 B.C. occurred approximately 4,500 years ago.

**Biface:**

A stone tool which has been flaked from both sides.

**Bifurcate base:**

An Early Archaic point style with a distinctive "split" base.

**Bird stones:**

Ornamental stone tools carved in the form of a stylized bird. These tools are products of Early Woodland Period populations. The function of these stones is unknown although it has been suggested that they served as weights for atlatls.

**Bone tool technology:**

The processes (manufacture) and products (tools) of working with bone.

**Boss:**

A term used to describe a decorative feature consisting of an elevated surface usually circular in shape on the pottery surface. Bossing may occur on either the interior or exterior of the pot.

**B.P.:**

Before present (where present is calculated to be 1951; the date from which radio-carbon assays are calibrated).

**Brushing:**

A term to describe a technique used to finish the surface of a pot. The technique involves the wiping of the ceramic surface with grass or other material to provide a textured finish. This finishing technique is usually restricted to the interior of the pot and is found on Early and Middle Woodland pots.

**Cache:**

A collection of similar artifacts, (often in an unfinished state), buried either for future use, or as a burial gift with the dead. Large caches of stone tool preforms of Early Woodland and Middle Woodland date are fairly common in Ontario. In some instances these artifacts appear to have been buried within fabric or leather bags.

**Cache blades:**

Usually Early or Middle Woodland artifacts found in a cache of similar items. These blades are often of high quality, often imported chert. The stage of production to which the blades have been taken varies. Some are roughly flaked preforms, some are well finished and thinned artifacts which require little or no modification for completion.

**Channelling:**

A term to describe a decorative impression consisting of linear impressions with widths greater than 2 mm. This impression is most commonly found on Late Woodland ceramics.

**Chert:**

A stone commonly used in the production of stone tools. Chert is either found as deposits in Palaeozoic rock formations or as nodules in the soil or along river beds. There is a considerable variety of chert types found in the Great Lakes area. They are distinguishable by colour and texture.

**Coil manufactured ceramics:**

Pottery vessels that have been made by wrapping a long coil of wet clay, often tempered with pieces of grit or sand, into the form of a pot. The surface of the clay is then smoothed over and the decorations applied. The pot is fired by placing it in a pit covered with hot ashes.

**Collar:**

A term used to describe a raised surface around the rim of a pot. Collars are a common feature on Late Woodland pots.

**Conservation:**

The scientific practice which deals with the stabilization and preservation of objects of cultural value.

**Cord wrapped stick:**

A term to describe a tool used in the decoration of prehistoric pottery. This tool consists of a stick around which is wrapped a cord such as a strand of grass, rope, or a reed. This tool produces an impression that is characterized by a band of notches connected by shallower impressions.

**Creamware:**

Cream coloured earthenware with a transparent lead glaze, originally developed to compete with porcelain in the 1760s. Creamware on sites in Ontario generally dates from the last part of the eighteenth century and the early nineteenth century. It is sometimes decorated with over or under glaze painting and with transfer prints.



**Cultigens:**

Domesticated plants.

**Datum:**

A point used as the basis for measuring a site.

**Debitage:**

Debris (flakes and chips) from the manufacture of flaked stone tools.

**Dentate stamp:**

A term to describe a decorative impression on pottery which is represented by a variety of shapes, sizes and arrangements. These impressions are made by notched tools lightly impressed on the surface of the wet clay. These designs were most commonly during the Middle Woodland period.

**Disbouchure:**

The place where a river empties into a larger water body.

**Drag stamp:**

A term to describe a decorative technique which consists of pushing and pulling a notched tool along the surface of a pot. This technique produces a design that has striations connecting the series of impressions on the ceramic. This technique was most commonly applied to Middle Woodland pots.

**Early Woodland:**

Early Woodland is a term used by archaeologists to distinguish cultural developments occurring in North Eastern North America between 1000 B.C.-500 B.C. This period is identified by the introduction of pottery. Other characteristics include the development of an extensive trade network centered on the Ohio River Valley, production of a variety of polished stone tools, grave goods with burials and in areas south of the Great Lakes the introduction of domesticated plants such as corn. Meadowood is a distinctive Early Woodland culture in Ontario.

**Effigy pipes:**

Pipes with figures carved or molded on the bowls.

**Features:**

This term is commonly used to describe any modification to the ground (such as a storage pit, hearth or postmould) which is either directly visible as a change in soil colour, or can be determined through the presence of a different soil texture or through plotting a concentration of artifacts.

**Field walking:**

Examining the surface of a field for artifacts.

**Fire cracked rock:**

Rocks which show clear evidence of alteration through heat. Spreads of fire-cracked rock are sometimes the only surface indication of an archaeological site (although not all FCR is as a result of cultural processes).

**Flakes:**

A term commonly used to describe thin fragments of chert, chalcedony, rhyolite, quartzite, quartz or other cryptocrystalline material which have been detached during the manufacture of stone tools.

**Flint Ridge chert (Chalcedony):**

A high quality silica rich rock much favoured for the production of chipped stone tools by people of the lower Great Lakes area. This material outcrops in Ohio, but was traded extensively throughout the Great Lakes region, particularly during the Middle Woodland period. It generally has a milky white colour although there is some considerable variation in its colour, often within the same artifact. There has been some suggestion that individual pieces of rock were deliberately selected for the variety of colours they contained.

**Fluted point:**

A projectile point (spear point) distinguished by a long narrow channel extending up to two thirds of the total point length from its base. These points are among the earliest projectiles produced by indigenous populations in North America dating from 12,000 - 9,000 B.C. These points have been found throughout much of North America with concentrations in the American southwest and in the American midwest.

**Glen Meyer:**

A branch of the Early Ontario Iroquois tradition.

**Gouge:**

A stone tool with a bevelled or channelled end. These tools were usually manufactured from shales and slates. They are believed to be a wood working tool.

**Grave goods:**

Artifacts deliberately deposited with burials.

**Gunflint:**

Small, deliberately shaped pieces of chert or flint which were held in the mechanism of a flintlock rifle. When the trigger was pulled the flint would be struck against the frizzen thus igniting the gunpowder held in the pan below. There are two main types of gunflint; trapezoidal and spall types. They are often made of European flint and were imported in considerable numbers.

**Hi Lo point:**

A projectile point (spear point) characteristic of the Hi Lo Tradition of the Late Paleo-Indian Period or Early Archaic which dates from 9,000 B.C. - 7,000 B.C. These points average about 15 cm in height, and have a triangular shaped blade. Points of this type have been identified in northeastern North America with several recovered from southwestern Ontario.

**Hopewell culture:**

Denotes a distinct archaeological tradition centered in the Ohio and Illinois River Valleys and dating from about 500 B.C. to A.D. 400. This culture is distinguished by distinctive ceramics and by the burial of their dead in mounds. Hopewellian groups practiced horticulture as well as relying on hunting, fishing and gathering for their subsistence. Peoples of the Hopewell culture were at the centre of a broad trading network that reached as far west as the Rocky Mountains, and as far south as the Gulf of Mexico.

**Incipient castellations:**

A term to describe gentle peaks along the rim of a pot. They are most commonly found on pots of the early Late Woodland Period.

**Incising:**

A term to describe a decorative impression on pottery. This impression is characterized by thin, linear stamp created by either dragging or impressing the sharpened edge of a tool across the unfired surface of the pot.

**Isostatic rebound:**

The weight of glacial ice from the last ice age depressed the earth's crust. As the ice melted the earth's surface slowly "rebounded" to its former configuration. This process occurred at a very slow rate, but has had dramatic long term effects on the shape of Ontario and has particularly influenced the history of the Great Lakes.

**Lacustrine:**

Of lakes. Archaeologists sometimes refer to "the lacustrine environment".

**Lalonde:**

The northern division of the Late Woodland Huron in the Simcoe County area. This term is currently not in much use.

**Lanceolate:**

Shaped like a lance point. Tapering to a point at the tip (and sometimes the base).

**Late Late Woodland:**

A term used to identify the later portion of the Late Woodland Period (A.D. 1400 - A.D. 1600).

**Late Woodland:**

A term used by archaeologists to identify cultural developments in Ontario occurring from about A.D.700 to A.D. 1650. This period is characterized by the use of domesticated plants for subsistence (corns, beans and squash) and the development of permanent villages in southern Ontario. During the last portion of this period historically recognized native groups such as the Neutral and Petun in southwestern Ontario, Huron in south central Ontario and the Five Nations (Mohawk, Seneca, Oneida, Onondaga and Cayuga) in western New York state emerge as distinctive cultural entities.

**Laurentian Archaic:**

The Laurentian Archaic is a tradition, occurring during the Middle Archaic period (6,000 B.C. -2,500 B.C.), identified for the western New York State and eastern Ontario area. This tradition is characterized by a variety of tools including distinct projectile points, and ground stone tools made from granites and slates.

**Lithic technology:**

The processes and tools associated with the manufacture of stone tools.

**"Micmac" Pipe:**

A type of small stone smoking pipe dating to the late seventeenth and early eighteenth centuries. They usually have a square bowl, a narrow waist and a rounded base with a prominent, and often pierced keel. They were used with a long reed stem. Although occasional examples in red pipestone (catlinite) are found, the majority of these pipes were made of local soft rocks such as limestone.

**Middle Woodland:**

Middle Woodland is a term employed by archaeologists to identify cultural developments occurring in eastern North America from about 500 B.C. - A.D. 700 (the dates vary from area to area). The definition of this period stemmed from the identification of the Hopewell Culture based in the Ohio and Illinois river valleys of mid continental north America, but has been broadened to include many peripheral, though contemporaneous cultures. This period, in southern Ontario, is distinguished by unique pottery and in some areas by mound burials (e.g. Serpent Mounds at Rice Lake).

**Multicomponent:**

A site that has been occupied by successive temporally or culturally unrelated groups. A site with evidence of both Early Woodland and Historic occupations, for example, would be considered multicomponent.

**Onondaga chert:**

A variety of chert characterized by its blue grey to whitish grey colour. It is found in the Niagara Peninsula and along the north shore of Lake Erie. This chert was one of the most commonly used materials in southern Ontario for the production of chipped stone.

**Organic remains:**

Under certain soil and moisture conditions materials which would normally soon rot in the ground can be preserved on archaeological sites. Fragments of bone, horn, sinew, tooth, scale etc. are called faunal remains while fragments of shell, netting, seeds, fibre, or pollen are called floral remains.

**Paddle and anvil manufactured ceramics:**

Pots that are produced by molding a lump of wet clay with an instrument with flattened surface (paddle) and a hard surface (anvil). The process involves striking the surface of the would be pot with the paddle, while cushioning the opposite surface with a block or by hand. This technique was commonly used during the Late Woodland period.

**Paleo-Indian period:**

The Paleo-Indian period extends from about 10,000 - 7,000 B.C. and includes the first commonly recognized cultural developments in North America. During this period small mobile groups of hunting and gathering populations are thought to have ranged over quite broad territories. Traditions or archaeological cultures of this period are defined primarily by differences in projectile points.

**Pipe:**

A tool for smoking, usually consisting of a mouthpiece, a tube and a bowl. Pipes are frequently decorated. The decorations and forms used are often distinctive to culture or time period.

**Plano:**

The Plano cultures or traditions are part of the late Paleo-Indian Period and extend from about 8,500 B.C. - 7,000 B.C. These groups are distinguished from other Paleo-Indian groups by the presence of projectile points without channels or flutes. Plano tradition sites have been identified in many parts of Ontario.

**Preform:**

An early stage in stone tool production.

**Prehistoric:**

Before written history. In Ontario this term is used to define the time between the beginning of human settlement in the province (ca. 9,500 B.C.), and the period when the first contacts were made between native and non-native groups (ca. A.D.1650).

**Primary source:**

This term is usually used to describe the original or natural location of some form of raw material (i.e. chert or clay) used by prehistoric people. For instance, the primary source of Kettle Point chert is the shoreline rock beds near Port Franks where cherts occur at the interface of the Upper Devonian Kettle Point shales and the Middle Devonian Ipperwash formation limestone.

**Projectile points:**

Arrow, spears or dart tips. Points are made from a variety of materials including both stone and bone.

**Provenience:** Place of origin. In archaeological jargon this means the location in which an object was found, and not its source. (Sometimes spelt as the U.S. "provenance" .)

**Pseudo scallop shell:**

A term to denote a decorative impression on pottery of wavy lines resembling the edge of a scallop shell. It is thought that this decoration was produced by either the edge of a shell or a notched tool. This design is commonly found on Middle Woodland ceramics of the Point Peninsula, Saugeen and Laurel Traditions in Ontario.

**Refined white earthenware:**

A hard bodied historic pottery intermediate in hardness between earthenware and porcelain. These vessels are frequently decorated with transfer print patterns or flowing colours and were generally utilitarian products for the rapidly expanding colonial market. They were introduced into the country during the first quarter of the nineteenth century and were in common use throughout the nineteenth century.

**Retouch:**

Evidence of resharpening along the working face of a stone tool.

**Secondary source:**

This term is usually used to indicate that the raw materials from which tools have been made came from cobbles or nodules of raw material which have been moved from their primary, or outcrop source by natural rather than human processes. Secondary source raw materials are often found in stream beds and glacial tills.

**Siltstone:**

A fine grained sedimentary rock.

**Sub-aqueous:**

Below water.

**Surface collection:**

A process of non-intrusive archaeological discovery and investigation which is particularly useful in agricultural areas where the surface of many sites has been disturbed through ploughing. A sense of general site patterning can be built up based on the recovery of artifacts discovered lying on the surface of the ground.

**Tradition:**

The archaeological equivalent of a culture. Most traditions are defined on the basis of a distinct material culture which occurs within a specific geographic area at a particular time.

**Trailing:**

A term to describe a technique used to decorate the surface of a pot. This technique consists of the application of a tool edge with medium pressure along the ceramic surface. It produces lines of equal depth across the surface of the pot. This technique is used on Middle and Late Woodland ceramics.

**Turbo-Beaver:**

A float plane, much beloved by northern Ontario pilots, or a high powered rodent.

**Vessels:**

Another term for pots.

## SOUTHERN ONTARIO PREHISTORY

A.D. 1650 - A.D. 1400	Late Iroquoian (Late Woodland)	<ul style="list-style-type: none"> <li>- complex agricultural society</li> <li>- villages, hamlets, camps</li> <li>- politically allied regional populations</li> </ul>
A.D. 1400 - A.D. 1300	Middle Iroquoian (Late Woodland)	<ul style="list-style-type: none"> <li>- major shift to agricultural dependency</li> <li>- villages, hamlets, camps</li> <li>- development of socio-political complexity</li> </ul>
A.D. 1300 - A.D. 800	Early Iroquoian (Late Woodland)	<ul style="list-style-type: none"> <li>- foraging with limited agriculture</li> <li>- villages, hamlets, camps</li> <li>- socio-political system strongly kinship based</li> </ul>
A.D. 800 - 400 B.C.	Middle Woodland	<ul style="list-style-type: none"> <li>- hunter-gatherers, spring/summer congregation and fall/winter dispersal</li> <li>- large and small camps</li> <li>- band level society with kin-based political system</li> <li>- some elaborate mortuary ceremonialism</li> </ul>
400 B.C. - 1000 B.C.	Early Woodland	<ul style="list-style-type: none"> <li>- hunter-gatherers, spring/summer congregation and fall/winter dispersal</li> <li>- large and small camps</li> <li>- band level society with first evidence of community identity</li> <li>- mortuary ceremonialism</li> <li>- extensive trade networks for exotic raw materials</li> </ul>
1000 B.C. - 7000 B.C.	Archaic	<ul style="list-style-type: none"> <li>- hunter-gatherers</li> <li>- small camps</li> <li>- band level society</li> <li>- mortuary ceremonialism</li> <li>- extensive trade networks for exotic raw materials</li> </ul>
7000 B.C. - 9000 B.C.	Paleo-Indian	<ul style="list-style-type: none"> <li>- first human occupation of Ontario</li> <li>- hunters of caribou and now-extinct Pleistocene mammals</li> <li>- small camps</li> <li>- band level society</li> </ul>



NORTHERN ONTARIO PREHISTORY							
Years Ago	Period	Cultures	Characteristics	Great Lakes Events			
				HURON	SUPERIOR		
250	Late Woodland	Wanikan	Late Woodland cultures of Northern Ontario share many traits in common: paddle made pottery decorated with cord, fabric or patterns of incisions, large summer camps at river mouths, small triangular or notched arrow points, bone harpoons, clay smoking pipes etc. These people were hunters and fishermen. Agriculture was only practiced along the southern fringes of the region. Local materials (copper, birch bark canoes etc.) were exchanged with southern groups for food.	Modern Levels	Modern Levels		
500		Blackduck					
500		Selkirk					
1000		Eastern Algonkians					
2000	Middle Woodland	Laurel	These people made highly decorated 'coil made' pottery. Some influence from southern 'Hopewell' people has been inferred from the construction of burial mounds in NW Ontario. Fishing at rapids and along lake shores was an important economic activity, as was hunting and harvesting small game.	Lake Algoma	Lake Algoma		
3000		Archaic	Shield Archaic Old Copper Culture			Lake Nipissing	Lake Nipissing
4000	The Archaic has been described as a slow evolution from the earlier Plano base. As the glacial ice receded from Northern Ontario, people spread out across the landscape. Archaic people made and used large ground stone axes and adzes, presumably to chop trees and perhaps to fashion canoes. Their spearpoints and knives are made from a wider variety of materials, and are generally of lesser quality workmanship. Archaic people mined and shaped nodules of pure copper into a wide variety of tools and ornaments. These were traded widely across the Great Lakes area and were included as offerings with the dead. During much of the Archaic period, water levels in the Great Lakes basin were much lower than they are now. Many of the areas which would have been most attractive for Archaic settlement have been underwater for 5,000 years.			Lake Hough - Lake Stanley	Lake Houghton		
5000		Palaeo-Indian	Plano			Lake Algonquin	Lake Minong
6000	Plano people moved into northern Ontario following the receding ice sheets of the last glaciation. These people made distinctive lance shaped spearpoint out of high quality quartzite, chert and taconite. Two concentrations of sites are known: in the Thunder Bay/Western Lake Superior area, and along the north shore of Lake Huron. Palaeo-Indians may have hunted herds of caribou along the shores of glacial lakes. They probably also fished and collected wild plants, although little has yet been found to confirm this. Burial was probably by cremation.			Lake Hough - Lake Stanley	Lake Houghton		
7000							
8000	Lake Hough - Lake Stanley	Lake Houghton					
9000			Lake Hough - Lake Stanley	Lake Houghton			
10000	Lake Algonquin	Lake Minong					

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## **OTHER SOURCES OF INFORMATION**

(Check with the O.A.S. office for the latest updates of phone numbers and addresses if you have a problem contacting any of the following)

### **The Ontario Archaeological Society, Inc.**

Office: 11099 Bathurst Street, Richmond Hill, Ontario L4C 0N2, Canada

Tel: (Toll Free) 1 888 733 0042

Telephone recorder service 24 hours per day

Email <oas@globalserve.net>

Founded 1950, commenced operating January 1951. Incorporated 1956 (Ontario Corporation 0086165); Registered Charity 1973 (0409292-21); Public Trustee file T006333/89.

Elected Officers:

PRESIDENT

SECRETARY/TREASURER

DIRECTORS

Contact Elected Officers through the office.

2000 Executive Director: Jo Holden

Publications:

Journal: ONTARIO ARCHAEOLOGY

Newsletter: ARCH NOTES

Special Publications, Directories, Posters and Products: list available from Society's office

For the current Editors, contact the office.

### **Chapters of the Ontario Archaeological Society:**

**Grand River - Waterloo Chapter, OAS**

**Hamilton Chapter, OAS**

**London Chapter, OAS**

**Niagara - on - the - Lake Chapter, OAS**

**Ottawa Chapter, OAS**

**Thunder Bay Chapter, OAS**

**Toronto Chapter, OAS**

**Windsor Chapter, OAS**

For up to date information regarding telephone numbers and names of the Elected Officers, call the OAS office.

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## ONTARIO ARCHAEOLOGICAL COURSES AND LECTURES OPEN TO THE PUBLIC

HAMILTON - Hamilton-Wentworth Archaeological Foundation  
Box 84, McMaster University Post Office, Hamilton, ON L8S 1C0  
Various courses as announced. Information Rita Griffin-Short (416)524-1384

HOPE - Rice Lake Museum of Archaeology  
P.O. Box 493, Port Hope, Ontario L1A 3Z4 (416)342-3250  
held at Hope Township Hall, Canton, Hope Tp.  
Information Wayne Nicholas (416)342-3549

KINGSTON and other centres - Save Ontario Shipwrecks  
Enquiries about underwater archaeology seminars and projects:  
KINGSTON: c/o Marine Museum of the Great Lakes,  
55 Ontario Street, Kingston ON K7L 2Y2  
OSHAWA: Les Pullen, President (416)723-3169 (evening)  
TORONTO: Susan Ainsworth, Administrator (416)491-2373  
see main entry under "Other Ontario Societies"

LONDON - London Museum of Archaeology, 1600 Attawandaron Road  
8.00 p.m. each second Thursday monthly in season  
London Chapter OAS. Information (519)433-8401(day)

OTTAWA - Victoria Memorial Building, Metcalfe & McLeod Streets, room 15  
8.00 p.m. each second Wednesday monthly in season  
Ottawa Chapter OAS. Information (613)592-5534(evening)

OTTAWA-HULL - Ottawa-Hull Society, Archaeological Institute of America  
Information (613)829-6725

ST. CATHARINES - Brock University  
Niagara Peninsula Society, Archaeological Institute of America.  
Information (416)934-8560(evening)

THUNDER BAY - Ministry of Culture & Communications Building, 1825 East Arthur Street.  
8.00 p.m. last Wednesday monthly in season.  
Thunder Bay Chapter OAS. Information (807)683-5375(evening)

TORONTO - Sidney Smith Hall, University of Toronto, Room 560a, 100 St. George St.  
8.00 p.m. each third Wednesday monthly in season  
Toronto Chapter OAS. Information (416)962-1136

TORONTO - The Ontario Archaeological Society, 11099 Bathurst Street, Richmond Hill,  
Ontario L4C 0N2. Various occasional workshops and programs.  
Information (Toll Free)1 888 733 0042 <oas@globalserve.net>

TORONTO - The Royal Ontario Museum, 100 Queen's Park, Toronto  
Various lectures, films, workshops etc. sometimes relevant to archaeology  
Continuing Education Department Information (416)586-5788  
Other ROM Information (416)586-5549  
Society for the Study of Egyptian Antiquities. Information (416)586-5632  
Toronto Society, Archaeological Institute of America Information  
Alison Eason (ROM)(416)586-5678

TORONTO - University of Toronto School of Continuing Studies  
158 St. George Street, Toronto, ON M5S 2V8. Information (416)978-2400

WINDSOR - Windsor Public Library, 850 Ouellette Avenue  
7.30 p.m. each second Tuesday monthly in season  
Windsor Chapter OAS. Information (519)253-1977(evening)

**ARCHAEOLOGICAL FIELD SCHOOLS AND VOLUNTEER  
OPPORTUNITIES OPEN TO THE PUBLIC  
(NOT UNIVERSITY FIELD SCHOOLS) IN ONTARIO**

Metropolitan Toronto and Region Conservation Authority  
5 Shoreham Drive, Downsview, ON M3N 1S4 (416)661-6600  
Boyd Conservation Field Centre (416)661-6600x270  
Robert Burgar, R.O.M. (416)586-5731, Field School (416)893-1740

Passport to the Past Program  
c/o The Ontario Archaeological Society  
11099 Bathurst Street, Richmond Hill ON L4C 0N2  
Tel:(Toll Free) 1 888 733 0042 email <oas@globalserve.net>  
Cooperating Agencies

Archaeological Research Associates  
Archaeological Services Inc. (Toronto and London)  
Archaeological Survey of Laurentian University  
Catawaqui Archaeological Research Foundation  
Huron Museum, Midland  
London Chapter OAS  
Mayer Heritage Inc.  
Metropolitan Toronto & Region Conservation Authority  
Ministry of Culture & Communications Field Services Archaeologist Offices in Kenora  
and Thunder Bay  
Ministry of Transportation, London and Toronto (Downsview)  
Ontario Archaeological Society, The  
Ontario Heritage Foundation  
Ottawa Chapter OAS  
Parks Canada (Ontario Region)  
Regional Municipality of Waterloo  
Sainte Marie Among the Hurons  
Thunder Bay Chapter OS

Toronto Board of Education Resource Centre  
Toronto Chapter OAS  
Toronto Historical Board  
Trent University  
University of Windsor  
Windsor Chapter OAS

## **FEDERAL GOVERNMENT RESOURCES**

### Archaeological Survey of Canada

Canadian Museum of Civilization, Ottawa, ON K1A 0M8

Dr. Ian G. Dyck, Chief (819) 776 - 8194

Archaeological Collections (819) 776 - 8506

Stacey Girling - Christie

Robert Pammett

Curator of Ontario Archaeology, Jean-Luc Pilon

Library (819)776 -8192

### Canada-Ontario Cultural Development Program

Department of Communications

Information Services

Marie-Christine Dufour/Gerard Desroches (613)990-4826/7

### Canadian Heritage, Minister of

Hon. Michel Dupuy

### Canadian Parks Service, see Parks Canada

### Communications, Department of

Journal Tower North, 300 Slater Street #578, Ottawa, ON K1A 0C8

Elizabeth Snow, Senior Policy Officer, Heritage Policy and Programs

Office for Archaeological Resource Management

Paul Antone, Diane Rondeau

### Environment Canada, Canadian Parks Service, see Parks Canada

### Geological Survey of Canada

601 Booth Street, Ottawa ON K1A 0E8

Geological library (613)995-4142

Map library (613)995-4177

Mineral identification (613)995-4982

Photo Library (613)995-4048

Publications enquiries (613)995-4342

Scientific & technical enquiries (613)995-4089

**Heritage Canada Foundation, The**

Box 1358, Station B, Ottawa, ON K1P 5R4 (412 MacLaren Street, Ottawa ON K2P 0M8)  
Enquiries (613)237-1867  
Newsletter "Heritage Canada" tel:(613)237-1066, (800)668-1867, FAX (613)237-5987.

**National Research Council**

Canadian Institute for Scientific and Technical Information  
General Enquiries (613)993-1600; 24-hour automatic answering in  
English (613)993-441; Envoy 100: CISTI.INFO

**Parks Canada**

Terrasses de la Chaudiere, 10 Wellington Street, Hull, PQ  
(mailing address Ottawa, ON K1A 0H3)  
Information (613)994-2595 (819)997-9991  
National Historic Parks and Sites (819)994-1808  
Historic Sites and Monuments Board of Canada (613)994-1808

**Archaeological Research Division**

1600 Liverpool Court, Ottawa ON K1A 1G2  
Chief Archaeologist (613)993-9692  
Underwater Archaeology (613)993-2470

**Historical Research Division**

Terrasses de la Chaudiere, Ottawa ON K1A 1G2  
Records (613)994-2866  
Canadian Inventory of Historic Buildings (819)994-2867  
Historical Research Branch (819)994-3222

**Historic Resources Conservation Branch**

1550 Liverpool court, Ottawa, ON K1A 0H3  
Lorne Murdock, Head, Wet Organic Materials Laboratory

**Public Archives of Canada**

395 Wellington Street, Ottawa ON K1A 0N3  
Archival enquiries (613)995-5138  
Library (613)992-6534  
National Photography Collection information (613)992-3884  
National Map Collection (613)995-1077

**Social Sciences & Humanities Research Council of Canada**

Library, 255 Albert Street, P.O. Box 1610, Ottawa, ON K1P 6G4  
General Inquiries (613)992-0682  
Research Grants (613)992-3145

Surveys and Mapping Branch, Dept. Energy, Mines and resources  
615 Booth Street, Ottawa ON K1A 0E9  
General Enquiries (613)995-4321  
Maps and Charts (613)998-3865  
Air Photos (613)995-4560  
Satellite Surveys (613)993-5588  
National Air Photo Library (613)995-4560

## **ONTARIO GOVERNMENT RESOURCES**

Ministry of Consumer and Corporate Affairs  
555 Yonge Street, Toronto, ON M7A 2H6  
Minister: Hon. Marilyn Churley  
Cemeteries Branch: Mrs. Eleanor Friedland (416)326-8525  
Inter-Ministry Committee on Unmarked Burials:  
101 Bloor Street West, 6th floor, Toronto, ON M5S 2Z5  
Rob Harper, Chair (416)326-8392  
Registrar of Cemeteries Gary Carmichael (416)324-8394  
Deputy Registrar of Cemeteries Clement Le Febre

Ministry of Citizenship, Culture, Tourism and Recreation  
400 Unniversity Ave. 4<sup>th</sup> Floor, Toronto ON M7A 2R9  
Minister: Hon. Helen Johns (416)325-6200 FAX (416)325-6195

### **Heritage Operations Unit;**

Toronto Office; FAX (416)314-7175  
Manager: Michael Johnson (416)314-7144  
Chris. J.-Andersen, Staff Archaeologist (416)314-7159  
Peter Carruthers, Environmental Coordinator (416)314-7145

Roshan Jussawalla, Licence Administrator (416)314-7123  
John MacDonald, Heritage Planner (Central Region)(416)314-7146  
Archaeological Data Officer (41)314-7161  
Heritage Planner (Northern Region)(416)314-7147

London Office; FAX (519)439-1696  
55 Centre Street, London, ON N6J 1T4  
Neal Ferris, Heritage Planner (Southwestern Region)(519)433-8401

Ottawa Office; FAX (613)566-3900  
1 Nicholas Street #1105, Ottawa, ON K1M 7B7  
Peter P. Engelbert, Marine Archaeologist (613)566-3731

Thunder Bay Office; FAX (807)623-7926  
1825 Arthur Street East, Thunder Bay, ON P7E 5N7  
Bill Ross, Staff Archaeologist (807)475-1551

Kenora Office; FAX (807)468-2934  
P.O. Box 2880, 227 Second Street South, Kenora ON P9N 3X8.  
C. S. "Paddy" Reid, Staff Archaeologist (807)468-2854

Cultural Programs Branch; FAX (416)314-7091  
Director: Lyn Hamilton (416)314-7081

Heritage Properties Program  
Pamela Craig, Supervisor: (416)314-7124

Museums and Heritage Organizations Programs  
Ruth Freeman, Manager (416)314-7149  
Claudine Bazin, O.A.S. Liaison Officer (416)314-7141

Tourism and Recreation  
enquiries 314-7400

Huronian Historical Parks  
Sainte Marie Among the Hurons,  
P.O. Box 160, Midland, ON L4R 4K8. Tel: (705)526-7838  
FAX(705)526-9193  
John Barrett-Hamilton, General Manager (705)526-7838  
Bill Byrick, Manager, Operations (705)549-8064  
Resource Centre, Sandra Saddy, Librarian (705)526-7838  
Curator: Jeanie Tummon (705)526-7838

Archives of Ontario, 77 Grenville Street, Toronto, ON M5S 1B3  
(416)327-1600 FAX(416)327-1579

Ontario Heritage Foundation (see later)  
10 Adelaide Street East, Toronto ON M5C 1J3  
Enquiry (416)325-5000

Volunteer Service Awards  
Marilyn Branch (416)314-7526

Ministry of Education  
Mowat Block, 900 Bay Street, Toronto, ON M7A 1L2  
Native Education Policy Unit, 14th floor  
Leigh Jessen, Coordinator Program Policy & Aboriginal Students  
Tel:(416)325-2790



Ontario Heritage Foundation

10 Adelaide Street East, Toronto, ON M5C 1J3. Tel:(416) 325-5000, Fax. (416) 325-5071

Joanna Bedard, Chair

Lesley Lewis, Executive Director

Catherine Axford, Executive Assistant (416) 314-4903

Richard Moorehouse, Director, Heritage Programs (416) 325-5010

Larry Kavanah, Manager, Heritage Properties (416) 325-5036

Brian Rogers, Manager, Heritage Community Services (416) 325-5011

John Ecker, Manager, Marketing and Communications (416) 325-5013

Ian Kenyon, Coordinator, Community Programs and Projects (416) 314-4907

Dena Doroszenko, Archaeologist (416) 325-5038

Paul Bator, Historian, Grants (416) 314-4911

Paul Litt, Coordinator, Plaque Programs (416) 314-4913

Bernard McCue, First Nations Consultant (416) 314-4910

Roger Martin, Niagara Escarpment Coordinator (416) 325-5030

James Duncan, Natural Heritage Consultant (416) 314-4915

Patti Priestman, Natural Heritage Consultant, (416) 314-4916

Jeremy Collins, Legal Coordinator, Acquisitions/Dispositions (416) 325-5017

Gloria Taylor, Grants Administrator (416) 314-4908

Wendy Lewis, Community Education Coordinator (416) 325-5074

Ministry of Natural Resources with Responsibility for Native Affairs

Minister: Hon. C. J. (Bud) Wildman

Whitney Block, Queens Park, Toronto ON

Aerial photographs (416)314-2001

Maps (416)314-1666

Ministry of Transportation

Minister: Hon. Ed. Philip

Regional Archaeologists

CENTRAL REGION: 1201 Wilson Ave., 5th floor, Atrium Tower,

Downsview ON M3M 1J8 (416)235-5551 FAX(416)235-4382

Mobile phones 605-2587, 605-2590

Gary Warwick, Regional Archaeologist

Jeff Bursey

Wayne Hagerty

Carl Murphy

Philip Woodley

SOUTHWESTERN REGION: 55 Centre Street, London, ON N6J 1T4

(519)438-9595 FAX(519)649-3110

Paul Lennox, Regional Archaeologist

Niagara Escarpment Commission

232 Guelph Street, Georgetown, ON L7G 4B1

G. H. U. Bayly, Chairman. Tel:(416)877-5191

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## ONTARIO MUNICIPAL HERITAGE AGENCIES

### Etobicoke Historical Board

399 The West Mall, Etobicoke, ON M9C 2Y2

### Hamilton Historical Board

Department of Culture & Recreation: Cultural Division  
Corporation of the City of Hamilton  
newsletter "Museum In-Site"

### Local Architectural Conservation Advisory Committees

c/o Clerk of the appropriate municipality

also:

Ministry of Culture and Communications  
Architectural Planning Unit  
400 University Ave., 4th floor, Toronto, ON M7A 2R9  
LACAC Advisor (416)314-7137

### Mississauga Heritage Foundation Inc.

300 City Centre Drive #1055, Mississauga, ON L5B 3C9  
Gay Peppin, Executive Director (416)272-1432 FAX(416)566-4171  
newsletter "Heritage News"

### North York Historical Board

5151 Yonge Street. North York, ON M2N 5P5

### Ottawa Planning and Development Department

Community Planning Branch, Heritage Section, 111 Sussex Drive, 5th floor, Ottawa, ON K1N 5A1. Tel:  
(613)564-1662

### Toronto Historical Board

205 Yonge Street, Toronto, ON M5B 1N2  
Linda Ardoino, Board Secretary (416)392-6827  
Richard Stromberg (416)392-6827  
Stanley Barracks, Exhibition Place, Toronto, ON M6K 3C3  
Fort York (416)392-6907  
Spadina House (416)392-6910

### Waterloo Region

Archaeology Division, 20 Erb Street West, Waterloo, ON N2J 4G7  
(519)885-9794

### Waterloo Regional Heritage Foundation, c/o Regional Clerk's Office

Marsland Centre, 4th floor, Waterloo, ON N2J 4G7  
Tel:(519)885-9450

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**SELECTED ONTARIO LIBRARIES WITH LITERATURE ABOUT  
ONTARIO ARCHAEOLOGY**

(These are not general public libraries and some may not be open to the student/ researcher  
without prior arrangement)

Archaeological Survey of Canada Library, Asticou Centre, Block 1600,  
Ottawa ON K1A 0M8  
Curator of Scientific Records: (613)996-5250

Archives of Ontario, 77 Grenville Street, Toronto ON M7A 2R9. Tel:(416)327-1600 FAX:(416)324-3600

Brock University Library, St. Catharines, ON L2S 3L1. Tel:(416)688-5550

Erindale College Library, 3359 Mississauga Road North, Mississauga, ON L5L 1C6  
Tel:(416)828-5236

Huronian Historic Parks Resource Centre, P.O. Box 160, Midland, ON L4R 4K8  
Sandra Saddle, Librarian: (705)526-7838x27

Lakehead University, Oliver Road, Thunder Bay, ON P7B 5E1  
Chancellor Paterson Library. Tel:(807)343-8225

Laurentian University Library, Ramsey Lake Road, Sudbury, ON P3E 2C6.  
Tel:(705)675-1151x3315

McMaster University, Hamilton ON L8S 4L6. Mills Memorial Library

Metropolitan Toronto Reference Library, 789 Yonge Street, Toronto, ON M4W 2G8  
Canadian History Dept. Tel:(416)393-7155

National Library of Canada, 395 Wellington Street, Ottawa, ON K1A 0N4  
General enquiries: (613)995-7969  
Reference enquiries: (613)995-9481

North York Public Library, 5120 Yonge Street, North York, ON M2N 5N7  
Tel:(416)733-5700

Ontario Archaeological Society Library, The  
11099 Bathurst Street, Richmond Hill, ON L4C 0N2. Tel:(Toll Free) 1 888 733 0042

Ontario Archives. See Archives of Ontario.

Oshawa Public Library, 65 Bagot Street, Oshawa, ON L1H 1N2

Parks Canada, Ontario Region Library,  
111 Water Street East, Cornwall, ON K6H 6S3

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Public Archives of Canada Library, 395 Wellington Street, Ottawa, ON K1A 0N3  
Information (613)995-5138

Queens University, Kingston ON K7L 5V4, Douglas Library. Tel:(613)545-2524

Royal Ontario Museum Library, 100 Queens Park, Toronto, ON M5S 2C6  
Tel:(416)586-5595

Scarborough College, 1265 Military Trail, Scarborough, ON M1C 1A4  
Bladen Library. Tel(416)284-3246

Sir Sandford Fleming College Library, P.O. Box 8000, Lindsay, ON K9V 4S6

Trent University, Box 4800, Peterborough N K9J 7B8, Thomas J. Bata Library.  
Tel:(705)748-1351

University of Guelph Library, Guelph, ON N1G 2W1

University of Ottawa, Ottawa ON K1N 9A5, Morisset Library (613)564-6880

University of Toronto Anthropology Library, Sidney Smith Building,  
100 St. George Street, Toronto, ON M5S 1A1. Tel:(416)978-3296

University of Toronto, Toronto, ON M5S 1A5  
John P. Robarts Research Library Tel:(416)978-2294  
Science and Medicine Library Tel:(416)978-2284  
Thomas Fisher Rare Books Library Tel:(416)978-5285

University of Waterloo, Waterloo, ON N2L 3G1. Dana Porter Library.  
Tel:(519)885-1211x2282

University of Western Ontario, London, ON N6A 3K7. D. B. Weldon Library.  
Tel:(519)679-2111

University of Windsor, 401 Sunset Avenue, Windsor, ON N9B 3P4  
Ledly Library. Tel:(519)253-4232x3203

Wilfrid Laurier University Library, Waterloo, ON N2L 3C5. Tel:(519)884-1970x2222

Woodland Indian Cultural Educational Centre, 184 Mohawk Street, P.O. Box 1506,  
Brantford, ON N3T 5V6. Tel:(519)759-2650

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**SELECTED ONTARIO MUSEUMS EXHIBITING PREHISTORIC  
ONTARIO ARTIFACTS**

Canadian Museum of Civilization, Hull, PQ K1A 0M8  
Information (819)994-0840

Collingwood Museum  
P.O. Box 556, Memorial Park, St. Paul Street, Collingwood, ON L9Y 3Z2  
Tel: (705)445-4811 Fax (Collingwood Town Hall) (705)445-2448

Victoria Memorial Museum Building, Metcalfe & McLeod Streets, Ottawa ON K1A 0M8  
Information (613)992-3497

Huronian Museum, Little Lake Park, P.O. Box 638, Midland ON L4R 4P4  
Tel:(705)526-2844 or (705)526-8757 e-mail Trill.HM  
James Hunter, Director.

La Maison François Baby House, 254 Pitt Street West, Windsor, ON N9A 5L5  
Tel:(519)253-1812 Fax:(519)255-7207 email:Trill.FBH

London Museum of Archaeology, 1600 Attawandaron Road, London, ON N6G 3M6  
Tel:(519)473-1360

Peel Regional Museum, 9 Wellington Street, Brampton, ON L6W 1Y1  
Tel:(416)451-9051

Rice Lake Museum of Archaeology, P.O. Box 493, Port Hope, ON L1A 3Z4. Tel:(416)342-3250;  
FAX:(416)342-5230

Wayne Nicholas, Lecture Series (416)342-3549  
Bob Blezard, President,  
Dr. Heather McKillop, Executive Director  
Lori Stephenson, Membership,  
14 Lavinia Street, Port Hope, ON L1A 2A6

Royal Ontario Museum, 100 Queens Park, Toronto, ON M5S 2C6  
Admission (416)586-5551  
Exhibitions (416)586-5556

Woodland Cultural Centre  
P.O. Box 1506, 184 Mohawk Street, Brantford, ON N3T 5V6.  
Tel:(519)759-2650 FAX:(519)759-8912  
Tom Hill, Museum Director ext. 243  
Simone Greene, Secretary ext. 242

**for information about local museums consult**  
"Directory of Ontario Museums" published by  
Ontario Museum Association  
George Brown House, 50 Baldwin St, Toronto, ON M5T 1L4  
Tel:(416)348-8672 FAX:(416)348-8689 e-mail trill: OMA.1

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## OTHER ONTARIO ARCHAEOLOGICAL AND RELATED SOCIETIES AND CONTACTS

### Archaeological Institute of America

Niagara Peninsula Society,

c/o Classics Dept, Brock University. Tel:(416)688-5550x3575

Information: Helen W. Brown (905)684-5943

lectures are given one Sunday each month September to April room TH245

Ottawa-Hull Society,

Information: Douglas Alcock (613)788-2301

Toronto Society,

c/o Dept Fine Arts, University of Toronto

President: Ann Kuttner (416)978-3290

Publicity: Ed Badovinac (416)867-2125

Secretary: Jane Bracken (416)489-0209

Information: Margaret C. Miller (416)978-5002

Lectures one Wednesday each month September to April in the McLaughlin Planetarium, ROM.

### Architectural Conservancy of Ontario

Ontario Heritage Centre, 10 Adelaide Street East #204, Toronto, ON M5C 1J3

Tel:(416)367-8075; Fax:(416)947-1066

President: Alec Keefer

Past President: Julia Beck, 312 Cromwell Street, London ON N6A 1Z6

Tel:(519)672-3124

Heritage Administrator: John Martins-Manteiga

various branches.

See also Toronto Region Architectural Conservancy

### Archives Association of Ontario

see: Ontario Association of Archivists

Ontario Council of Archives

### Association of Heritage Consultants

see Canadian Association of Professional Heritage Consultants

### Association of Professional Archaeologists

President : L.J. Jackson

(905) 342 3250

### Cataraqui Archaeological Research Foundation

370 King Street West, Kingston, ON K7M 1B9

Tel:(613)542-3483

### Champlain Society, The

P.O. Box 592, Toronto, ON M4G 4E1

Executive Secretary-Treasurer Betsy Ruth Brant

Tel: (416)487-2693 FAX(416)487-5617

**CHP Heritage Centre**

Cumberland Terrace, Upper Level at Bay Street, Toronto  
Jane Beecroft, Manager

**Community Heritage Ontario**

Ann Bobyk, Treasurer (416)769-3712  
84 Sybella Drive, Oakville, ON L6K 2L8

**Friends of Sainte-Marie**

P.O. Box 160, Midland, ON L4R 4K8  
newsletter: Relations From Sainte-Marie

**Friends of the Teaching Rocks, The**

159 Pine Street, Kingston, ON K7K 1W9  
Alan Taylor, Secretary. Tel:(613)547-3580, fax:(613)546-4129

**Hamilton-Scourge Project**

71 Main Street West, Hamilton, ON L8N 3T4

**Hamilton-Wentworth Archaeological Foundation**

P.O. Box 84, McMaster University Post Office, Hamilton ON L8S 1C0  
Tel:(416)577-6444  
Executive-Director Rita Griffin-Short

**Hamilton-Wentworth Heritage Association**

71 Main Street West, Hamilton, ON L8N 3T4  
Stewart R. Leslie, President

**Heritage Coordinating Committee**

see Ontario Heritage Alliance

**Heritage Metro**

455 Willard Avenue, Toronto ON M6N 3R7  
Joan Miles, Chairman. Tel:(416)767-6129

**Institute of Northern Ontario Research and Development**

Laurentian University, Ramsey Lake Road, Sudbury, ON P3E 2C6  
Tel:(705)675-1151

**Joint Committee on Archaeology in Ontario**

c/o The Ontario Archaeological Society

**Multicultural History Society of Ontario, The**

43 Queen's Park Crescent East, Toronto, ON.  
Tel:(416)979-2973 FAX:(416)979-7947

**Ontario Association of Archivists**

c/o Joyce Pettigrew, President,  
RR1, Otterville, ON N0J 1R0. Tel & FAX:(519)842-4388.  
Eastern Ontario Archivists Association, Ottawa  
London District Archivists Association, London  
Northwestern Ontario Archivists Association, Thunder Bay  
Southwestern Ontario Archivists Association, Windsor  
Toronto Area Archivists Group, Toronto

**Ontario Black History Society**

Ontario Heritage Centre, 10 Adelaide Street East #202, Toronto, ON M5C 1J3.  
Tel:(416)867-9420 FAX:(416)867-8691  
Everette Moore, Executive Director.

**Ontario Council of Archives**

c/o George Brown College Archives, P.O. Box 1015, Station B,  
Toronto, ON M5T 2T9  
Archives Advisor: Johanne M. Pelletier, P.O. Box 128, Station P,  
Toronto, ON M5S 2S7. Tel: & FAX: (416)324-2231

**Ontario Council of Professional Osteologists**

c/o Dr. Shelley R. Saunders, Dept. Anthropology, McMaster University,  
Hamilton, ON L8S 4L9. Tel:(416)525-9140x3903

**Ontario Genealogical Society, The**

40 Orchard View Blvd #251, Toronto, ON M4R 1B9  
Catherine Morgan, Acting Office Administrator  
Tel:(416)489-0734, FAX:(416)489-9803  
President: Rod McLeod  
Representative to OHA: Marjorie Roblin

**Ontario Heritage Alliance**

(formerly Heritage Coordinating Committee)  
see member organizations:  
Architectural Conservancy of Ontario  
Ontario Archaeological Society  
Ontario Association of Archivists  
Ontario Black History Society  
Ontario Genealogical Society  
Ontario Historical Society  
Ontario Museums Association  
Save Ontario Shipwrecks  
Société franco-ontarienne d'histoire et de généalogie

**Ontario Historical Society**

John McKenzie House, 34 Parkview Avenue, North York, ON M2N 3Y2  
Dorothy Duncan, Executive Director.  
Tel:(416)226-9011 FAX:(416)226-2740



Ontario Marine Heritage Committee  
3744 Woodruff Crescent, Malton, ON L4T 1T9

Ontario Museum Association  
George Brown House, 50 Baldwin Street, Toronto, ON M5T 1L4.  
Tel:(416)348-8672; FAX (416)348-8689; e-mail OMA.1

Ontario Rock Art Conservation Association  
227 Second Street South, 2nd floor, P.O. Box 2880, Kenora, ON P9N 3X8  
Tel:(807)468-2854

Ontario Society for Industrial Archaeology

Ontario Underwater Council, The  
1220 Sheppard Avenue East, North York, ON M2K 2X1.  
Tel:(416)495-4245

Petun Studies Group  
103 Anndale Drive, North York, ON M2N 2X3  
Charles Garrad, Director (416)223-2752

Preserve Our Wrecks (POW), Kingston  
Sue Bazely, President  
c/o Cataraqui Archaeological Research Foundation  
370 King Street West, Kingston ON K7L 2X4. Tel:(613)542-3483

Royal Ontario Museum  
100 Queens Park, Toronto, ON M5S 2C6  
General enquiries (416)586-5549  
Admissions (416)586-5551  
Botany (416)586-5609  
Dr. John H. McAndrews  
Conservation (416)586-5793  
Continuing Education (416)586-5788  
Egyptian (416)586-5632  
Exhibitions (416)586-5556  
Invertebrate Palaeontology (416)586-5591  
Dr. Peter von Bitter  
Library (416)586-5595  
Mineralogy and Geology (416)586-5816  
New World Archaeology (416)586-5724 FAX (416)586-5863  
Dr. Peter Storck (416)586-5726  
Dr. Mima Kapches (416)586-5727  
Robert Bugar (416)586-5730

Andrew Stewart (416)586-5643  
Ornithology (416)586-5520  
Dr. Alan Baker  
Publications: ARCHAEOLOGICAL NEWSLETTER, ROTUNDA

Save Ontario Shipwrecks (SOS)

Susan Ainsworth, Administrator  
2175 Sheppard Avenue East #110, North York, ON M2J 1W8  
Tel:(416)491-2373, FAX(416)491-1670  
Les Pullen, Board Chair  
80 Gibson Street, Oshawa, ON L1J 4X9 Tel:(416)723-3169  
Chapters: Bellevue (Ohio), Elliot Lake, Golden Lake (Ottawa Valley), Kingston, Kingsville (Windsor #2),  
London, Mississauga (Toronto #3), Orleans (Ottawa), Oshawa, Port Colborne (Niagara), Sarnia, Sault Ste.  
Marie, Schreiber (Superior), Sudbury, Thunder Bay, Trenton, Williamstown (Ingleside)  
Publication: SOS Newsletter

Shipwreck Preservation and Research, 22 Erindale Avenue, Toronto, ON M4K 1R9

Rick Jackson  
Publication: newsletter

Société franco-ontarienne d'histoire et de généalogie

C.P. 277, Succ A, Ottawa, ON K1N 8V3  
Maurice Berthiaume, President. Tel:(613)632-3003  
Toronto Branch: Louise St. Denis. Tel. & fax:(416)861-0165  
30 Wellington St. East #2002, Toronto M5E 1S3

Society for Industrial Archaeology

c/o IHPST, Victoria College, University of Toronto, Toronto, Ontario  
Ian Livesay. Tel:(416)224-2263

Toronto Area Archivists Group

P.O. Box 97, Station F, Toronto ON M4Y 2L4

Toronto Area Heritage Group, Toronto Historical Board, 205 Yonge Street,  
Toronto ON M5B 1N2.

Margaret Bailey. Tel:(416)392-6827

Toronto Board of Education, Archaeological Resource Centre,

c/o Danforth Technical School, room 4, 840 Greenwood Avenue,  
Toronto, ON M4J 4B7  
Karolyn Smardz. Tel:(416)393-0666

Toronto Historical Board

205 Yonge Street, Toronto, ON M5B 1N2  
Michael McClland. Tel:(416)392-6827  
Richard H. Gerrard, Registrar  
Richard L. Stromberg, Archaeologist  
Fort York Archaeological Project  
Catherine Webb (416)392-6907

Toronto Region Architectural Conservancy  
P.O.Box 7162, Station "A", Toronto, ON M5W 1X8  
Alec Keefer, President. Tel:(416)947-1066  
newsletter: A.C.T.

Trillium: An Information and Ideas Network  
c/o Ontario Museums Association,  
George Brown House, 50 Baldwin Street, Toronto, ON M5T 1L4  
Jim Leonard, Trillium Project manager.  
Tel:(416)348-8672; FAX(416)348-8689; e-mail OMA.1

## FIRST NATIONS CONTACTS

For the current list of First Nations, Chiefs, addresses, telephone and FAX numbers, in Ontario, contact Chiefs of Ontario. For a recent list contact The Ontario Archaeological Society.

Association of Iroquois and Allied Indians  
Oneida Reserve, R.R. #2 Southwold, ON N0L 2G0. Tel: (519)652-3251

Canadian Association in Support of the Native Peoples  
251 Laurier Avenue West, Ottawa, ON K1P 5J6. Tel:(613)236-7489  
Library and Information Centre,  
277 Victoria Street, Toronto, ON M5V 1W2. Tel:(416)362-5937

Chiefs of Ontario  
Indian Associations Coordinating Committee of Canada Inc.  
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Heritage Canada: "**The Heritage Directory**"

Heritage Network Press: "**Heritage Organization Directory**"

Micromedia Limited "**Directory of Associations in Canada**"

Ontario Archaeological Society: "**Archaeological Directory of Ontario 1995**"  
Special Publication 8

Ontario Educational Communications Authority 1989, The "**Archaeology from the  
Ground up Resource List for Ontario**"

Ontario Historical Society: "**Directory of Heritage Organizations and Institutions in Ontario**"

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