ARCH NOTES

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Well, here we are into spring. The blossoms, flowers, birds and the increasing warm temperatures help us to shake off the winter doldrums and begin bizarre rites of spring, like for example, the roasting of a past president.

Roasts can be great fun, particularly when it is a complete surprise to the poor individual being roasted. Such was the case with our dinner and roast for Christine Caroppo. I do not know how Brian and company manged to keep her in the dark but whatever they did, it worked. And the roasters did a grand job of keeping dinner guests entertained with amusing and embarrassing tales and anecdotes about Christine. You have lived quite a life, Christine. But you have also done, and continue to do, so much for the OAS. Consider the roast a measure of how much we appreciate your unending dedication and work for the Society. The greater the roast, the greater the appreciation, and this was a grand roast! Thanks Christine.

In other news, I am pleased to report that contributions to the OA Endowment Fund continue unabated. We are already approaching our goal of $20,000. However, the OA Endowment Fund Committee intend to raise even more in order to completely secure the future of Ontario Archaeology. Consequently, the Committee has taken the first step in applying to one of many foundations and corporations. If successful this first time around, we shall repeat the process. We expect to be notified some time in June on the success or failure of this application. Let us hope for the best.

While on the subject of first steps, the OAS Board of Directors are taking their first steps on what may turn out to become a rather long path. For some time now, there have been discussions about improving the management, the structure and the planning of the Society. But nothing substantial developed. Since receiving a hint from MCC that the process of creating a strategic plan for the OAS should be initiated by 1993, we have to decided to act now. Consequently, we are in the process of contacting management consultants for information and advice. For the moment, we are not certain of where we are going nor exactly how we will arrive. But the first step has been taken. As we continue, we shall require considerable input and feedback from the membership. So stay tuned. And may I once again request suggestions for an OAS patron. We do need one.

The London Chapter of the OAS is also on the move, but taking a giant leap rather than just a small step. They will soon take up residence in a part of a well known heritage property in London, the Grosvenor Lodge. It is quite a building and the Chapter will have enough space to begin their own resource centre. Their Grand Opening is on the 24th June and it is hoped that many members can attend to celebrate. Congratulations folks. I certainly hope to be there on the 24th.
LICENCES
The following is a list of licences to conduct archaeological exploration, survey or field work, which have been granted by the Minister since March 16, 1992.

Conservation (with surface collecting condition)
92-080 Charles Garrad, Willowdale, for the Counties of Grey, Dufferin and Simcoe.
92-087 George Aitkin, Cambridge, for Grand River watershed, parts of Waterloo, Wellington and Brant counties.

Conservation (site specific condition)
92-076 Mark Warrack, Mississauga, for the City of Mississauga.

Consulting
92-084 Hamilton-Wentworth Archaeological Foundation, Hamilton, for the Regional Municipality of Hamilton-Wentworth.

Survey/Test Excavation
92-081 R. J. (Rik) Kristjansson, Mississauga, for Kitto Township

Excavation/Field School
92-086 Dr. Dean H. Knight, Wilfrid Laurier University, Waterloo, for the Ball Site, Elmvale, Simcoe County.

Underwater
92-079 Chester R. Wisniewski, Shelby Twp., Michigan, for Lakes Huron and Erie.

PUBLICATIONS AVAILABLE
The following new publications are available from the Ontario Heritage Foundation:

Second Annual Archaeological Report (new series) $ 5.00
A summary of 1990 archaeological field work in Ontario. Forty contributions, bibliography. 164 pages. (First volume is now out of print)

Avocational Archaeologists: Roles, Needs and Responsibilities $ 5.00

Available soon, the first ONTARIO ARCHAEOLOGICAL REPORTS (OAR)
Huron Paleoethnobotany by Stephen Monckton. Price to be determined. Comprehensive study of botanical remains from four 17th century Huron sites, providing a significant reinterpretation of Huron diet. 226 pages.

The Cummins Site Complex by Patrick Julig. Price to be determined. An important analysis and overview of the Cummins site and other Paleoindian components in the Lakehead area of northern Ontario.

Chester R. Wisniewski, Shelby
Gloria M. Taylor
In November of 1987, the Ontario Ministry of Culture and Communications sponsored a conference in Toronto entitled "the Assessment Survey and Reporting Guidelines Conference". As a result of discussion held at that conference, a set of draft guidelines for Stage 1 to 3 archaeological assessments was prepared and eventually published in Arch Notes (88-4:9-11). These draft guidelines have provided the regulatory basis for archaeological assessments in Ontario since that time, although largely on a voluntary basis.

In September of 1989, a second conference was held in Toronto, organized by the Canadian Association of Professional Heritage Consultants to discuss the evaluation of site significance and to design a process for establishing guidelines for Stage 4 mitigation of impacts for archaeological sites. At that time, the Ministry of Culture and Communications also requested opinions from the archaeological community on the steps required to consider the draft guidelines for Stage 1-3 assessments ratified and final.

It was agreed at the 1989 conference that working groups would meet in several regions in Ontario (London, Eastern Ontario, Waterloo, Hamilton, Toronto, Thunder Bay) and submit both final revisions to the Stage 1-3 guidelines and material for incorporation into the Stage 4 guidelines, to the Joint Committee on Archaeology in Ontario.

The Joint Committee on Archaeology was formed in the fall of 1988 as a means of information exchange and communication among the various groups and individuals with an interest in archaeological conservation and management in Ontario (see Arch Notes 89-1:24-25). Its principal tasks in the past three years have been ongoing consultation with the Archaeology Committee of the Ontario Heritage Foundation (1989-1990) and preparation of the guidelines based on the submissions of the regional groups. Also, in 1991 this committee was reconstituted as The Task Force on Self Regulation, and given the task of examining self accreditation and permit systems. This mandate was assigned at the October, 1990 conference on self-regulation hosted by the Association of Professional Archaeologists.

The Task Force is currently chaired by Dr. Martha Latta of the University of Toronto (Ontario Council of Archaeology) and includes Mr. Art Howey (Ontario Archaeological Society), Dr. Dean Knight (Association of Professional Archaeologists), Dr. Mima Kapches (Royal Ontario Museum), Dr. Ron Williamson (Retiring) and Mr. Robert Pihl (Canadian Association of Professional Heritage Consultants), Mr. Les Pullen (Save Ontario Shipwrecks), Ms. Ann Balmer and Ms. Pat Reed (Administrative Assistant).

The two sets of guidelines have been enclosed for the community's consideration.

In the case of the Stage 1-3 guidelines, since ample opportunity has been provided for input (almost four years and several consultative processes), it is assumed that as of August 1, 1992, these guidelines will be considered final and ratified. After that date, assessments and reports that do not meet these guidelines will be considered unacceptable by both our community and the MCC. Comments will be considered by the Task Force if they are submitted by July 1, 1992.

In the case of the Stage 4 guidelines, these should be considered as a draft only and comment is encouraged, especially submissions intended to strengthen the mitigation process. We would also appreciate feedback as to whether the community, upon review of these draft guidelines, feels it is...
necessary to hold another conference or whether the Task Force should make revisions and submit a final draft in a fall issue of Arch Notes.

It should be noted that while the Stage 1-3 guidelines apply primarily to consultants, the Stage 4 guidelines will apply, as minimal standards, to all archaeologists who undertake excavation of archaeological sites.

As a final note, the community should be congratulated for achieving agreement on these issues relatively quickly. While not every person will agree with every detail of the mitigation guidelines, they represent the consensus, with very little dissenting opinion.

Please forward all comments to Ms. Pat Reed:
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ARCHAEOLOGICAL ASSESSMENT TECHNICAL GUIDELINES:
April 1992

by the Task Force on Self Regulation (Joint Committee on Archaeology)

INTRODUCTION
These guidelines provide minimal requirements for survey and reporting for archaeological assessments. For the purposes of ensuring clarity and continuity, the different steps of an archaeological assessment have been identified as "Stages". As applied in these guidelines, Stage 1 represents the background phase of an assessment. Stage 2 is the actual field examination, involving either surface-survey or test-pitting. Stage 3 occurs when archaeological remains are encountered during survey, requiring the site to be delineated and its significance evaluated. Stages 1 and 2 and where applicable 3, represent those activities normally conducted prior to the production of the assessment report. In practice, Stages 2 and 3 will often occur during the same field assessment.

Stage 4 is reserved for site salvage excavation and occurs after the original assessment is completed. Mitigation strategy during Stage 4 will normally be defined by the results and recommendations of the assessment report along with discussions among the archaeological consultant, property owner/developer, MCC staff and municipal planning representatives. Guidelines for this stage are currently being developed.

In order to undertake field work it is necessary for the consultant to have a valid archaeological consulting licence from the Minister of Culture and Communications. If Assessment Reports are to be submitted in fulfilment of licence obligations, the consultant should ensure that they meet the requirements defined in the Ontario Heritage Act and its regulations. Also, it is recognized that many variables will enter into an archaeologist’s selection of a specific field strategy based on their professional judgement. If, however, a survey strategy falls below the minimum requirements outlined below, the archaeologist will be expected to provide in the assessment report a detailed justification for such a deviation.

ARCHAEOLOGICAL ASSESSMENT METHOD
Stage 1 - Archaeological Overview / Background

Archaeological assessments shall require an examination of the National Site Registration Database for the subject lands as well as any other historical, environmental or archaeological data deemed appropriate by the consulting archaeologist. Individuals with any information regarding archaeological remains on the subject property must be consulted. Land use history and present condition of the
study area should be reviewed. In addition, the geomorphological history of the land during the period of possible human occupation should be considered with reference to the potential for buried cultural deposits.

**Stage 2 - General Survey Method**

Archaeological assessments shall not be conducted under weather conditions that might inhibit the identification of sites and/or may result in the loss of data or damage to cultural material. For example, no surface surveys shall be conducted on lands covered by snow and no test pit surveys shall be conducted with ground frozen 3 cm or more below surface. Techniques should be appropriate for finding both prehistoric and historic remains, and sites of all sizes. Appropriate techniques for finding capped, sealed or otherwise deeply buried sites should also be employed where a high potential has been determined previously.

All properties that have been cultivated previously shall be ploughed for archaeological assessment purposes, rather than shovel test pitted. The depth of ploughing should not exceed the depth of previous ploughing but should be deep enough to ensure total topsoil exposure. Disking should be employed to improve visibility where required, as determined by the consulting archaeologist. While exceptional circumstances may occur from time to time that may require the employment of a strip-ploughing strategy instead of full-field ploughing (e.g. fields that include areas of large rocks or mature vegetation), strip ploughing should not be considered an effective alternative to full field-ploughing in the majority of cases. At a minimum, a ploughed field must be weathered by one heavy rain or several light rains prior to final assessment survey. 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, as documented in the assessment report. 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, as documented in the assessment report.

Where surface survey can not be accomplished, shovel test pits shall be excavated into subsoil at 10 metre intervals. This interval must be reduced to 5 metres or less in high potential zones, as documented in the assessment report. All test pit fill shall be screened, through 6 mm mesh.

Heavy machinery shall not be used in Stage 2 surveys except where the presence of sterile overburden or recent fill has been demonstrated.

Where archaeological remains are identified during Stage 2, survey activities will be intensified in and around the area in order to define the cultural affiliation(s) and the spatial extent of the deposits. Artifact collection should be minimized during Stage 2.

In the event that no further archaeological investigation of a site is warranted, artifact locations shall be mapped and all artifacts shall be retained. In the case of nineteenth century Euro-Canadian sites, a representative sample may be retained. All recommendations regarding sites shall be accompanied by an explicit explanation.

**Stage 3 - Archaeological Resource Delineation and Evaluation**

Field investigation for Stage 3 should be designed to obtain information on spatial dimensions and cultural affiliation of the site, as well as information required to address the significance evaluation criteria (see Assessment Reports; Results). Ultimately, these data will be used to determine the impact mitigation strategy. The method of investigation should be appropriate to the type and amount of cultural remains and ground conditions at the site, and the rationale for the method of investigation must be provided in the assessment report.

Where Stage 3 assessment activities result in the recovery of the balance of available information from an archaeological site, or where further investigation of a site is not warranted, artifacts shall be mapped and all artifacts shall be retained. In the case of nineteenth century Euro-Canadian sites, a representative sample may be retained. All recommendations regarding sites shall be accompanied by an explicit explanation.
Delineating and evaluating a site will require:

* surface mapping at a scale sufficient to show the location of individual artifacts tied into a permanent datum, which will remain stable through Stage 4 activities;

and / or

* test pitting at a maximum 5 m grid, screening pit fill, and mapping of all test pits with reference to a permanent datum.

As part of a Stage 3 assessment, it may be necessary to determine the nature of ploughzone and subsoil deposits. This should be accomplished through the limited placement of test units (minimum 50 cm square) over the site area.

In addition, evaluation of an historic site should include a documentary search for information relating to the history of the property (title search, assessment rolls, census, genealogical information).

ASSESSMENT REPORTS

At the conclusion of any fieldwork, the consultant archaeologist must prepare an Archaeological Assessment Report. This shall contain the following information:

Cover Page:

* When available, municipal development file number ("T" number of subdivision) and property name (e.g. "Pleasant View Estates") or other reference that identifies the project type (e.g. "Whistle-Bare Phase 2 Quarry Pit Expansion")

* Name and address of client

* Name of consultant or consulting firm

* Current archaeological licence number

* Date of report completion

* Consultant’s project number

Introduction and Description of Property:

* Purpose of project

* Summary of background research

* Duration and dates of field activities

* Names of field director, survey crew, data analyst(s), report authors

* A written description of the environmental setting and landscape features including ground cover and weather conditions

Methodology:

An illustration and description of the field and laboratory techniques employed in the assessment must be provided including: 1) the total area surveyed with a breakdown by technique (walking survey, test pitting etc.); and 2) the total area and depth of excavation by soil horizon. Any deviation from minimum standards (as defined in these guidelines) must be justified.

Photo-documentation of any land disturbance or exceptionally difficult field conditions encountered in the survey must be included.

Results:

If no artifacts or sites were encountered during the survey, this should be explicitly stated. Otherwise, there should be a detailed description for each site including:

* environmental setting

* the recovered artifact and ecofact assemblage, including catalogues

* photographs and/or drawings of representative diagnostic artifacts

* the depositional history of the site (including disturbances to the deposits) and reconstruction of the occupational chronology to the extent that available data allows, and the formal, spatial, and temporal relationship of the site to other sites in the region

* Evaluation of the significance of the identified archaeological sites (see next section)

A map of the proponent project area (e.g. draft plan map of subdivision, pipeline corridor, etc.), or a similarly scaled equivalent, must be used as a base for depicting any variations in ground cover, zones of archaeological potential, and the area investigated, including survey intensity, and location of field techniques employed. All areas investigated, with both negative and positive results, must be mapped. This map, or a second equivalent scaled map, must also
depict the exact location of all archaeological sites and findspots recovered.

**Evaluating Significance:**

Significance must be assessed at each stage using appropriate criteria as a means of determining procedures for the next stage. At a minimum, the criteria used to evaluate significance should include the following, where appropriate:

**Information Potential**

Generally, the potential contribution to local, regional and provincial heritage interests must be addressed with respect to the following site attributes:

- Site integrity
- Context (temporal and spatial, uniqueness, representativeness, inter-site relationships, demonstrated relationship to known historic events, people, etc.)
- Content (ecological information, artifacts, settlement pattern data, complexity)
- Potential for the presence of human remains

**Perceived Value**

- Public interest
- Education potential
- Importance to specific cultural groups
- Economic potential

**Recommendations:**

If no further archaeological investigation is warranted, a recommendation should be made to clear the property of any further archaeological concern.

If significant archaeological remains have been identified on the subject property, then a detailed site impact mitigation strategy should be provided. If salvage excavation is recommended, the recommendations must include a rationale for the mitigation, including an explicit excavation strategy appropriate to the site's significance as discussed above.

All reports must contain a recommendation that should deeply buried archaeological or human remains be found on the property during construction activities, the appropriate government ministry be contacted immediately.

**STAGE 4 - IMPACT MITIGATION GUIDELINES: DRAFT**

**1.0 INTRODUCTION**

The management of unavoidable and unanticipated adverse impacts on archaeological features is achieved through the implementation of mitigation, compensation, surveillance, monitoring and emergency impact management measures. These measures are only implemented in situations where unavoidable conflicts are identified between archaeological features and a proposed development. The nature and extent of these measures will have been determined in the impact assessment stage.

**2.0 MITIGATION OPTIONS**

Mitigation refers to measures that reduce the deleterious effects of project construction, operation and maintenance on archaeological feature values. Actions designed to prevent or avoid adverse impacts are also regarded as mitigation.

The following sections constitute descriptions of the major categories of mitigative options. The proponent and/or archaeological consultant will be required to submit a detailed research proposal to the Heritage Branch of the MCC prior to implementation.

**2.1 Project Design Changes (Site Avoidance)**

An important means of mitigating adverse project impacts on archaeological sites is to institute changes in the design or location of a project, or to alter the level of development intensity. Design alternatives are recommended in the impact assessment study and subsequently incorporated in the final project design. The results of this mitigative measure need only be reported in the event that follow-up monitoring or surveillance is required.

Alterations in project design are viable mitigation measures wherever adverse impacts on archaeological sites are avoided or reduced.
as a result. Impacts can be avoided by relocating project facilities such as construction camps, stockpiles and transmission towers, or re-aligning linear developments such as oil and gas pipelines, transmission lines, railways, and roads. Fences or other suitable barriers should be erected, despite avoidance measures, as an added precaution where archaeological sites are situated close to a construction area. Avoidance is always the preferred mitigation measure as it ensures complete in situ protection of the feature for future investigation or use. Moreover, it is often the least costly measure to implement.

Reducing the effects of project actions on archaeological sites can also be accomplished by decreasing the amount of development or by using construction practices which minimize ground disturbance. Examples include restricting the use of heavy machinery on a site, clearing land over suitable snow cover, and using project buildings without subsurface foundations.

2.2 Site Protection
Archaeological preservation can also be achieved through measures that prevent or forestall site destruction. Site protection measures include protective covering, stabilization, and physical barriers. The feasibility and suitability of implementing one or other of these protective measures may require a geophysical assessment.

Site capping or burial involves judiciously covering an archaeological site with fill, asphalt, peat, concrete, etc. Once capped, project construction or other activity may be permitted to occur unimpeded over the site. However, site capping is an appropriate mitigative measure only when it can be demonstrated that important data will not be irrevocably lost through compaction, accelerated decomposition, horizontal displacement, or subtle changes in soil chemistry. In addition, capping must take into account the degree to which future investigation and use may be precluded because of inaccessibility.

Stabilization measures and the use of protective barriers may be appropriate in cases where archaeological sites are adjacent to the construction zone, and in areas where erosion or slope failure are anticipated. Under these conditions, the destruction or erosion of archaeological sites may be prevented by constructing barriers such as fences, dykes and gabions, or by utilizing landscaping practices such as differential clearing and slope terracing. Water diversion channels, designed to minimize erosional processes, may also be considered protective barriers. In addition, a suitable buffer zone, within which no land alteration or other activity is permitted, is often necessary to ensure adequate site protection. Buffer width should depend on the degree of uncertainty concerning site size and the type of activity proposed.

Archaeological site vandalism and the unlicensed collection of artifacts are often indirect consequences of a project. Vandalism may be precipitated by disclosing site locations or by facilitating public access to otherwise inaccessible areas. Although site protection measures can play an important role in controlling vandalism, other approaches are usually required. Since site vandalism is primarily an educational problem, one approach is to conduct information programs for project personnel that promote archaeological conservation. In addition, the development of archaeological sites as special interest areas can also serve to deter vandalism, while allowing the feature to be of direct public benefit. An ongoing program of patrolling and monitoring archaeological sites should also be considered.

2.3 Monitoring
Monitoring is undertaken to ensure that adverse project impacts on archaeological sites which could not be predicted or evaluated prior to construction are addressed. Project actions that may unexpectedly expose and disturb recorded as well as previously unknown sites warrant at least periodic monitoring. For example, the shoreline of a newly created reservoir should be monitored during the stabilization period to document unanticipated impacts on archaeological sites.
resulting from slope failure and shoreline erosion. In addition, monitoring is undertaken in order to assess the effectiveness of mitigation measures, as well as the magnitude, severity or duration of an impact.

2.4 Systematic Data Recovery

The systematic investigation and recovery of data from archaeological sites represents a third, but less desirable, mitigation option. A principle disadvantage is that the recovery process itself is destruction, thereby precluding future opportunities for scientific research, preservation or public appreciation. Moreover, even the most intensive and sophisticated recovery program is seldom able to retrieve all of the data in an archaeological site; invariably a great deal of information is lost. Proper data recovery and analysis is also very time consuming and expensive, and recovery costs are often difficult to estimate accurately. Therefore, systematic data recovery should be considered only as a last resort when both avoidance and site protection measures are impractical.

Where data recovery is the only viable mitigative option, it should be based on an adaptive, flexible research design and employ professionally accepted methods and techniques. Data recovery should aim to generate further scientific understanding and enhance public appreciation and awareness of the feature. Multi-disciplinary collaboration and problem-oriented research are encouraged.

Archaeological research goals will vary depending on current regional research and resource management priorities and needs. However, once defined, the specific research problems and objectives constitute the limits of a proponent's responsibility in data recovery and analysis.

The level or intensity of data recovery will depend on the number of sites involved, site significance, size and structural complexity, and the level of adverse effect. Since proper investigation of an archaeological site depends on knowledge of the larger settlement-subsistence system into which it fits, adequate mitigation may require extensive background research and examination of previous regional archaeological studies.

Systematic data recovery from archaeological sites involves:

a) a complete or partial systematic surface collection, excavation, or both;

b) a comparative analysis and interpretation of content and contextual information; and

c) production of an investigative report.

All recovered data must be analyzed, interpreted and reported, and artifact curation must be arranged beforehand. The materials and records of the investigation must be available and accessible to future researchers.

3.0 ABORIGINAL CONSULTATION

Consultation with appropriate local aboriginal groups and/or individuals is a presumed aspect of preparing for archaeological fieldwork. Indeed, as an aspect of records and literature searches, aboriginal concerns should be solicited on a project-specific basis.

4.0 SYSTEMATIC DATA RECOVERY: SALVAGE EXCAVATION GUIDELINES

4.1 Research Design

A research design for scientific investigation in the mitigation stage must be developed around the research problem orientation identified in the Stage 1-3 assessment recommendations. It is this problem orientation which has provided the feature with a value and justified mitigation concerns. Other problems also may be defined provided that they do not necessitate additional requirements, in either the field or the laboratory, of the developer. The latter, of course, is a condition that may be altered upon agreement between the proponent and the archaeologist.

The research design is to be clearly documented in the Stage 1-3 report. The research design should address problems of general, regional, or local significance as defined through periodic review by consultant, ministry, and academic communities. The appropriate data recovery techniques and analytical approaches are also to be described.
In some mitigation projects, a general research design for data recovery at several sites may be applicable. For example, the excavation of several small lithic scatters within a geographically prescribed area could be tied to the investigation of lithic technological strategies over time or space. In such a hypothetical case, the problem would require examination of several sites and provide what otherwise might be considered to be a marginal archaeological feature with a definite value. In this instance, individual site mitigation strategies must be justified in light of the larger focus.

The formal drafting and approval of a research design may not always be possible prior to initiation of fieldwork. This statement recognizes the urgency of scheduling which some developers may face in completing an impact assessment and mitigative programme. Since mitigation recommendations must be justified within the context of a site's research potential, the research focus will have to have been developed at the recommendation stage. This focus must be fully elaborated in the final report along with the associated field and analytic treatments employed.

### 4.2 Field Methodology

Field methodologies and data recovery techniques within the research design will be tailored to the data requirements of the problems to be solved. Because of this, there is little freedom for the archaeologist to alter the approach described in the impact assessment report and the permit application. If the archaeologist finds that the specified field methodology is not producing the desired result and that an alternative strategy would be better suited, then he or she should contact the appropriate review office responsible for the project development area. Reports on mitigation projects where field methodologies vary considerably from those proposed in the research design as specified on the permit application, may be considered unacceptable if prior consultation has not occurred.

A minimum standard for field procedures is not given here. Rather, it is stressed that such procedures are to meet the basic requirements of the research problem. Data collection, within normal contexts, is to be carried out through either systematic excavation or surface collection. In these situations, all specimens are to be assigned a provenience more specific than site level. Where non-systematic collection strategies have been recommended (e.g., grab samples), provenience may be at the site level. A detailed account of field methodologies and an assessment of their effectiveness is to be included in the final report.

Professional conduct and standards in the field are expected of the archaeologist and crew. The permit holder is ethically responsible for the actions of all individuals under his/her supervision while engaged in activities associated with the permitted project.

Investigations of archaeological sites normally entail intensive data collection through scientific excavation. Detailed documentation of all field work is mandatory for the permit holder. This includes field notes, appropriate map coverage, feature plan views, profile drawings, photographic documentation and the preparation of any other material regarded as necessary for an accurate description of field activities and their results.

Site reclamation, including the backfilling of excavation units, is recommended for partially excavated sites. As a working rule, four weeks is to be taken as the maximum length of time excavations may be left open following fieldwork completion.

Heavy mechanical equipment such as bulldozers or graders should be used only to clear overburden which is at least 1 m deep. Otherwise only a Gradall or equivalent machine may be employed to remove plough zone. Prior to any use of mechanical equipment, it must be demonstrated clearly that the site has been disturbed. Moreover, before a Gradall is used to remove the topsoil from a disturbed site, potential middens as reflected in surface artifact concentrations should be sampled to determine their degree of disturbance and, the nature and productivity of the midden or other deposit.
For all excavations a grid should be established on an interval of not more than 5 m and in undisturbed deposits, both horizontal and vertical provenience should be recorded (with the exception of material from within middens). All materials should be collected with reference to visible strata. Where screening is warranted (i.e. undisturbed sites, certain plough zone deposits, feature fill etc.) all deposits should be screened through at least 6 mm mesh. There will be circumstances where finer screen will be appropriate.

The use of flotation must be considered for all sites. The number and provenience of flotation samples should be consistent with the research design as outlined in the impact assessment report and permit application.

Documentation should include photographs of the excavation, plan views and profiles of all features as well as descriptions of the cultural and natural strata and the general site environment.

4.3 Mitigation Reports

Final reports are due no later than 2 years following termination of the field project unless otherwise authorized through a permit amendment. Mitigation reports on scientific investigations, in most cases, represent the sole documentation and interpretation of archaeological sites. As such, they differ from archaeological impact assessment reports in the degree of analysis and interpretation. Because of the potentially varied nature of mitigation projects, a standard report format is more difficult to define than for the archaeological impact assessment report. Minimum content requirements do apply, however, and these are defined below.

Title Page:
- to include the report title, project name, proponent name, permit number, permit holder and date of submission.

Transmittal Letter:
- optional inclusion

Credit Sheet:
- to include report acknowledgements for authorship, field research assistance, analytical and technical support, and all other assistance the permit holder wishes to credit.

Report Abstract:
- to include a categorized summary of specific report data.

Management/Executive Summary:
- optional inclusion not to exceed 600 words in length.

Table of Contents:
List of Tables:
List of Figures:
Introduction:
- to include the project background, the nature of the development and associated impact, the previous archaeological impact assessment overview and the objectives of the mitigation project and report. This section should also include a relevant overview of the study area and any other data felt necessary to introduce the mitigation project.

Site Setting:
- Regional natural environmental setting (regional physiography and geomorphology).
- Cultural setting: culture historical overview, including known settlement patterning of the area during the relevant cultural period(s).
- Local site description (including local soil characteristics, slope, aspect, distance from water, type of water source, land use history and present condition).

Research Design:
- Overview of local and regional archaeological research questions.
- Research design should be reviewed, including: research goals, hypotheses, archaeological test implications, and data requirements. Any changes to the design occurring in the course of the project should be discussed.

Methods:
The following procedures should be discussed with reference to hypotheses, test implications, and data requirements of the research design:
Sampling procedures: (judgemental, random, systematic, testing, trenching, etc.) including unit and level sizes, screen sizes, flotation samples and dating materials.

Mapping control and provenience: methods of vertical and horizontal control; datum points; draft plan map or other large scale contour map showing location of datum points and excavation grid and extent of excavation.

Stratification: description of cultural & natural stratification of site (including features) and profile drawings.

Field and laboratory methods and techniques: excavation tools, how & where soil, flotation, & dating samples and materials were collected, analytical procedures.

Results of Field Investigations:
- Description of each type of artifact, feature, and subsistence remains.
- Description of depositional history of the site and reconstruction of the sequence of occupational events where possible.
- Tabular summaries and distribution maps of material
- A catalogue of archaeological material with a brief description and provenience of each item (including faunal & floral remains, carbon samples, soil samples, features, etc.) collected or observed during the excavation project.
- A thorough and scientifically acceptable description of all settlement features uncovered.
- High quality black & white photographs of selected artifacts, with scales and appropriate captions.
- All data must be analysed and reported to the minimum standards defined in these guidelines.

Conclusions:
- Discussion of the relation of the site to regional patterns of settlement where known, and contribution of the site to the understanding of settlement in the region.
- Synthesis of all results in relation to the problems and hypotheses specified for the project.
- Evaluation of goals and hypotheses in light of data analysis.
- New problems and hypotheses generated by the work.

Recommendations:
- Recommendations for management of the site(s).
- Recommendation for future research.

References Cited:
- All literary sources cited in the report such as publications, documents and records, as well as names and dates of all personal communications. Format should follow American Antiquity style as established by the Society of American Archaeology.

Appendices:
- to be included as needed. Detailed technical analyses or data tabulations are normally appended.

4.4 Combined Archaeological Features Impact Assessment and Mitigation Reports

In those contexts where the development proponent has defined a measure of urgency and mitigation is to precede the submission of an impact assessment report, the archaeologist may incorporate both the impact assessment report and the final report on mitigation results into a single volume. This should be viewed as the exception, not the norm and is incorporated here for the benefit of the development proponent. The circumstances for which this report integration is allowable and the guidelines to be met are defined below.

1. The urgency of the development must be documented for the impact assessment stage and a in-office verbal report with supporting documentation must be made to the Development Review Unit of MCC.

2. A written application to amend the impact assessment permit to incorporate all subsequent mitigation
must be made, and the permit amendment must be authorized.

3 The reporting requirements of the archaeological impact assessment and those of mitigation must be clearly separated. The report format may include a single introduction and background information section. The report title must identify the combined nature of the report.

4. Only the archaeological impact assessment permit holder may carry out mitigation and author the final report. For those situations in which some other individual is to carry out mitigation, separate permits and separate reports are required.

Again, it is emphasized that combined reports are the exception and not standard procedures. The acceptance of a combined report is contingent upon a defined emergency in which mitigation will precede the submission of an impact assessment report and the successful application for a permit amendment to include mitigation.

4.5 Data Analysis Guidelines

Minimum analysis and reporting requirements are provided in the following section. They include a detailed description of all diagnostic artifacts and finished artifacts, including relevant metric data, in addition to various interpretations of these data. The form of analysis of archaeological data is otherwise left to the discretion of the permit holder. The following guidelines are recommended to the archaeologist as the minimum standard acceptable within the context of an archaeological impact assessment report, a mitigation report or a research permit report.

Although it is expected that forms of analyses will vary, it is emphasized that reports must present the raw data upon which the analyses are based, in addition to all relevant information necessary to follow each step of the analyses. This is particularly the case for sophisticated quantitative treatments. The reader must be able to comprehend the analyses undertaken by virtue of their description, so that it will be possible to replicate the results on the basis of the data provided. Anything short of this principle may be cause for rejecting a report.

4.5.1 Prehistoric Assemblages

In addition to the qualitative and quantitative description required for diagnostic prehistoric artifacts, the archaeologist must provide a basic typological and technological review. The former should include those categories of formal tools that are commonly employed within Ontario (e.g., projectile points, bifaces, etc.). Individual artifact class descriptions should include conventional metric and non-metric attributes and be supplemented by photographic illustrations or well-executed line drawings. Generally, all artifacts should be described and analysed at a level of detail consistent with current research as reflected in the archaeological research design outlined in the permit application and/or impact assessment report. In the case of lithic material technological analyses should provide information on raw material use, thermal alteration, flake type (i.e. primary vs. secondary) and a basic discussion of thedebitage classes of cores, flakes and shatter. Large volumes of data should be summarized graphically or in tables. In the case of prehistoric ceramics, both attribute and type data must be presented.

Within the report, artifact description and analysis may be included within individual site descriptions if multiple assemblages are involved, or placed in an appendix. If the appendix format is chosen, the reviewer must be able to discern easily the individual constituents of each site assemblage. Operational definitions for nonconventional attributes or references to where these may be found must be provided in the data presentation.

4.5.2 Historic Artifact Assemblages

Historic artifact assemblages are normally voluminous in quantity and diverse in typology. Analyses of these materials and data presentation should rely heavily on typological classification. The basis for the classification (e.g., function, material, etc.) must be discussed within the context of those
research problems being addressed. The general range of metric and non-metric attributes for each class also must be presented.

Artifacts with specific identifiable attributes that may be placed in space or time are to be treated as the equivalent of diagnostic specimens in prehistoric assemblages. These attributes may include maker's marks, trademark brands, datable technological attributes or other such identifiers. Specimens of this nature must be described and, where possible, interpreted. These are also to be accompanied by black and white photographs or well-executed line drawings. Where specimen colour forms and integral component of the artifact category, as may be the case with ceramics, for example, colour plates may be included.

The use of metric scale for quantitative description may be inappropriate for some classes of artifacts that were originally manufactured on the basis of imperial measures of length, weight or volume. If these measures are critical to the typological construction or interpretation, imperial measurements are allowed. However, the use of imperial measures must be justified for each case within the final report.

Regarding large amounts of information on an historical artifacts assemblage, this should be handled in a manner comparable to that required of prehistoric assemblage reporting as previously described.

4.5.3 Faunal Remains

Faunal remains recovered from an archaeological site are considered to be an integral component of the archaeological assemblage which must be analysed and reported. Faunal analysis must meet the following criteria:

1. Species determination should be made for each identifiable element and basis for identification must be stated (i.e., with reference to a comparative collection or manual).
2. Individual specimens should be identified as to skeletal element or element portion.
3. Modifications, such as butchering or gnaw marks, burning or intentional reworking (e.g., grinding, cutting), should be recorded and discussed. Bone artifacts, however, should be included within the artifact assemblage analysis.
4. Historical faunal remains that have been subjected to standard butchering practices should make reference to individual meat cuts present.
5. Faunal recovery field techniques, including screen size, column samples, etc., must be documented within the report. A discussion on sample "representativeness" also must be incorporated.
6. The faunal analyst, whether the permit holder or not, is to be identified on the final report credit sheet.

Some archaeological projects may result in the recovery of exceptionally large faunal samples, and the preceding guidelines could become cumbersome in terms of time, manpower and finances. In such cases, a sampling rationale must be clearly defined.

4.5.4 Plant Remains

Plant remains recovered from archaeological sites are also considered to be an integral component of the investigation and must be properly recovered, analysed and documented. It should be noted that the following guidelines are minimal.

4.5.4.1 Field Recovery

Plant remains collection should be undertaken using any one of the following water separation techniques: Froth flotation, SMAP (Shell Mounds Archaeological Project-Watson 1976), or double bucket method. The collection screen should have an aperture size no larger than 0.425 mm, and this must be reported. Volumes of soil should be recorded and heavy fractions must be recovered and sorted either in the field or in the laboratory. The screen used for this should be no larger than 2 mm. Plant material should be wrapped in cloth squares and allowed to dry.

4.5.4.2 Analysis
Arch Notes

Methods of analysis should be stated in detail. Acknowledging that methods may vary depending on a number of factors, the report should provide at least the following information:

1. A detailed description of the methods of plant remains recovery in the field and laboratory analysis.
2. Weights (to 1/100 of a gram) of sample components, including wood charcoal, other plant parts (e.g. seeds, unidentified material), mineral, uncharred organic, bone and flakes.
3. Plant taxa should be numbered and weights recorded when specimens occur in large enough quantity. Where certain taxa, like maize, occur only in fragments, these should be weighed and numbers estimated on the basis of the weight of a known number of whole charred specimens.
4. Should the number and/or size of samples require more time than funds allow, a justification of the subsample examined should be provided as well as the location of samples yet to be analysed.
5. At least a sample of wood charcoal should be examined and taxa identified to the genus or species level. Wood charcoal taxa weights should be provided in the report.
6. The analyst must be identified on the final report credit sheet.

5.0 CATALOGUING AND CURATION

5.1 Cataloguing

Each artifact within a collection must be assigned a catalogue number and if appropriate other provenience information. That number is to consist of archaeological site’s Borden designation as a prefix, with a sequential number to follow (e.g., AiHb-1:225). A typewritten catalogue of all specimens providing a basic identification and provenience data must be maintained and submitted as a permit requirement. Computerized catalogues may be submitted, provided that the standard catalogue information is included and is easily readable.

Artifact labels, when possible, are to be written on the specimen with a high-quality, waterproof black ink underlain by clear lacquer. Dark artifacts are to be labelled with a similar quality white ink. Contrasting undercoatings are not to be employed, and at no time is typewriter correction fluid to be used as an undercoat. All labelling must be legible and resistant to fading, chipping or other potential impairment.

Specimens too small to easily accommodate a label or those where a label would detract from analytic, photographic or display potential, should be placed in a suitable container (plastic vial, clear plastic bag, etc.) with the catalogue number applied to it. Where several items are of an identical nature (e.g., white quartzite shatter less than 5g), are from the same provenience and are numbered sequentially within the catalogue record, they may be placed within the same receptacle. The sequence of catalogue numbers must be indicated on the container label. In this case the catalogue record need not record an entry for each item, but may indicate a collective number assigned, the number of specimens, their identification and provenience.

Faunal remains are to be catalogued as a normal assemblage constituent. However, in many cases, it may not be desirable to place labels on bone surfaces (e.g., where radiometric analysis will follow). Again, the specimen(s) should be placed within a proper receptacle with labelling applied.

5.2 Curation

Submission of collections should be made in strong medium-size (approximately two cubic feet) cardboard boxes. Each box must be labelled with the permit number(s) and the site(s) contained therein. It is recommended that a list of specimens included within each box be made and submitted.

In packing archaeological materials, the archaeologist is urged to use common sense to avoid damage in shipping or storage. Formed tools or otherwise significant artifacts are to be protected by separate bagging, placement in vials with cotton, and/or the use of other
cushioning materials as deemed necessary. Each bag must be clearly labelled.

Faunal remains must be boxed and labelled separately. Labels again are to include permit and site numbers as well as the catalogue numbers of specimens included within. Faunal remains are to be packaged with sufficient cushioning material to prevent breakage or abrasion of specimens.

Oversized objects or very small collections must be treated in a matter that will ensure their safe arrival.

Any hope of long term preservation is directly dependant upon the proper packing and storage of all artifacts. Basic standards for correct packing and storage not only guarantee the physical and chemical survival of the collection but also aim to assure its accessibility. Thus, the following standards for long term preservation address three areas of concern: packing, storage and environment.

Packing

The collection must be packed properly to ensure some preservation in long-term storage. Guidelines for packing aim to provide physical protection from breakage and crushing and some buffering protection from the harmful effects of the environment. Organized packing of artifacts will also facilitate easy accessibility to the collection. Proper packing can only be assured through use of the correct packing materials and methods.

a) Materials

Materials used in the packing of the collection must not be harmful to the artifacts. Recommended packing materials include:

i) Sturdy lidded cardboard boxes of various sizes.

All collections should be stored in new cardboard boxes, with inside dimensions 10"H x 12"W x 15"L (i.e. Standard Banker's boxes).

Note: Acid-free boxes are ideal for the storage of collections, however, their high cost is prohibitive and unrealistic. An exception should be made for paper, zinc, lead and pewter objects which benefit from an acid-free environment. Artifacts of other materials can be stored safely in sturdy cardboard containers. Precautionary measures for the protection of objects from acids can be taken by lining the containers with polyethylene sheeting or sealing their surfaces with two coats of varathane (polyurethane varnish). These precautionary measures are not recommended if fluctuations in the temperature and relative humidity in the storage environment are extreme and if the container does not contain silica gel (a drying agent) as condensation may occur.

It is essential that when these boxes are stored by stacking that they do not exceed 6 boxes in height. Boxes should never be placed directly on a concrete surface. Objects such as stakes should be placed under the box to ensure air circulation around all sides of the box.

ii) Polystyrene boxes with self-seal hinged snap-on lids for small fragile objects.

Note: Storage of metal artifacts in these sealed containers is not recommended if extremes of temperature and relative humidity are the norm and also if silica gel (a drying agent) has not been inserted in the container. Condensation may occur and stimulate corrosion.

iii) Bags

- strong brown paper bags - various sizes.
- perforated zip lock polyethylene bags preferably with opaque bands for ease of labelling.

iv) Padding materials

Any inert packing materials can be used to pad artifacts. Some examples are; acid-free tissue paper, acid-free paper towels, microfoam or cellufoam, bubble pack (double polyethylene sheeting with air pockets), polyethylene or polyether foam, or expanded polystyrene, or cotton wool (which can be used for cushioning but must never be in direct contact with the artifacts).
contact with the object). The use of newspaper and toilet paper is to be avoided.

b) Methods

i) The size of the box, or bag must be commensurate with the size of the objects inside, being neither too large nor too small.

ii) The size and weight of the container and its contents should be such that it can be lifted and moved by one person of normal strength.

iii) All bags must be closed securely to avoid loss of any artifact and/or accompanying labels.

iv) Bags and boxes must enclose their contents to provide protection from dirt and dust pollution, and some buffering from fluctuating environmental conditions outside the container.

v) Artifacts of different materials should be stored in separate containers.

vi) Pack all artifacts dry.

Note: An exception is the packing of wet organic materials. To ensure preservation, such artifacts must be kept in an environment which closely resembles their burial conditions (i.e. if wet, keep wet) until conservation treatment can be carried out. Uncontrolled drying will result in irreversible damage through collapse, shrinkage, warping and cracking.

vii) Pack stable glass and ceramics clean.

viii) Pack all metal artifacts, well padded, in paper bags or individual cardboard boxes (particularly important if the storage room is not environmentally appropriate and controlled). Sealed polyethylene bags or polystyrene boxes should only be used in conjunction with silica gel (a drying agent) and/or where appropriate, environmental standards for the preservation of metal artifacts are maintained.

Note: Silica gel must be checked regularly and regenerated as required.

Note: Acid-free containers must be used for paper, lead, zinc and pewter artifacts.

Robust dry finds, e.g. stable glass and ceramics can be placed in perforated polyethylene bags. Delicate small dry finds can be padded and placed in small clear polystyrene boxes with snap-shut lids, or cylindrical vials. Bags of artifacts must be placed in large storage boxes or drawers in such a way as to avoid crushing and breaking. Do not pile bags of artifacts on top of each other. Place them in individual sturdy lidded cardboard boxes; then stack these up in larger containers. Heavier artifacts or boxes of artifacts should be placed on the bottom and lighter ones on top.

All artifacts require padding. Aim for firm but gentle support in padding and packing objects. The objects should not be packed so loosely that they can rattle about, nor so tightly that any part is under pressure.

Objects, particularly small and fragile ones should be placed in a nest of padding and not wrapped in a cocoon. Damage will result with the latter method when unwrapping. Only use inert materials for padding.

All containers must be labelled. This label should provide the following information.

- Borden Number, site name
- Country, Province and Region
- Dates of Excavation
- Researcher
- the number of the box and the total number of boxes in the collection (this keeps the entire collection together and it is easy to determine whether all of the collection is present)
- the type of material contained within the box (i.e. lithic, ceramic, faunal, plant etc.)
- items that are museum display pieces should be contained within one box provided that the materials are compatible (this will reduce disruption of the entire collection when it is necessary to reserve these items for the purposes of display, research, photography, and education. •
The OAS' Tribute and Roast to Christine Caroppo was held at Oakham House on the Ryerson campus March 27th. The purpose of this, as readers are likely aware, was to honour Christine for having served the previous five years as President of the Society, and for all the time and effort she expended in keeping Ontario archaeology at the forefront of the province's heritage agenda.

It had been difficult to keep this roast a secret, and finally Christine was told that there was a dinner Saturday night in honour of Charles Garrad for having been OAS Administrator for 13 years. In the meantime, however, a supposed gourmet dinner put on by the Oakham House Cordon Bleu Chef was being held at Oakham house on the Friday night (which is in fact something they do), and I had been invited along.

Christine met me at the office and we proceeded to shop at First Canadian Place until closing, then walked over to Brian's office and headed to the presumed gourmet dinner.

With approximately 50 people in attendance everyone else was there waiting, having been told to arrive half an hour before we did (plus we were fashionably late). We were greeted by Margaret-Ann Fecteau (Clark) and the famous Fecteau video camera, seen at many OAS and Toronto Chapter events. Christine, of course, knew something was up, but had been expecting it the next night. I will have to see this video one day in the hope that Margaret-Ann captured some element of surprise.

Shortly after our arrival we sat down to a scrumptious dinner prepared by Oakham House staff. Those more in the know at my table commented that the chocolate cheesecake was better than any other they had tasted. The table service was excellent; however, the bar service was terrible. I think the bartender was doing triple duty - as a server, bartender and kitchen help.

After dinner a slide projector was set up and Charlie acted as MC.

First, messages were read that had been sent from well-wishers who couldn't make it that evening but who were there in spirit: Bill Fox, Stew Leslie, Jim Pendergast, Gary Wilson (MPP for Kingston and the Islands) and the Windsor Chapter. Gary Wilson expressed surprise that there were people out there who would have the temerity to roast Christine in the first place. As well, in the audience were supporters who had travelled all the way from London for the event. Which London it was I will leave for you to decide.

Slides were shown and/or speeches made by Dean Axelson, Ellen Blaubergs, Brian Clarence, Dena Doroszenko, Dorothy Duncan, Margaret-Ann Fecteau, Charles Garrad, Mima Kapches, Norma Knowlton, Alison Lobb (of the Ontario Genealogical Society) and Marjorie Tuck. Everything from fieldwork to participation on various committees and task forces was covered, and we were privy to many slides (some made from early photographs that she thought no longer existed) showing Christine in various states of dress and undress over the past 15 years. When Brian took over the slide projector, we all wondered if an additional collection would have to be taken up that night to pay for divorce proceedings. He is to be commended for his bravery in the face of what was thought might be certain extermination.
OAS Members and past and present provincial and chapter executives attended, as well as members of sister societies who had sat many hours with Christine on heritage related committees. Among them were President Jeanne Hughes and Executive Director Dorothy Duncan of the Ontario Historical Society, the aforementioned President Alison Lobb and Vice-President Louise Hope of the Ontario Genealogical Society. Thanks to these participants we were given an inside glimpse of what really goes on at POLARIS, the Cemeteries meetings, Ministers' Advisory Committee meetings, etc.

Ellen Blaubergs, Josie Holden and Janice Calvert of the OAS Education Committee gave Christine a beautiful brooch and ring, set in silver, of blue and white "porcelain sherd jewellery".

Duncan Scherberger, President of the Toronto Chapter, presented on the Chapter's behalf a t-shirt depicting a screenprinted petroglyph from a site in the American Southwest. His hilarious interpretation of the glyph was both insightful and inciteful. Armed with cast and crutches to protect herself, Jane Sacchetti also arrived after dinner to roast Christine and made a generous donation to the Ontario Archaeology Endowment Fund. In addition, donations to the Fund were made by Nick Adams, Bill Fox, Stew Leslie and Bruce Welsh.

On behalf of the OAS Ellen Blaubergs presented Christine with a beautiful book entitled, "Legacy: The Natural History of Ontario", and a card which everyone present had signed. She had earlier presented her with "bonbons and bubble bath", as a tongue-in-cheek reflection of how Christine really spent her days as President.

Christine was allowed a rebuttal, of course, and had been given pen and paper at the beginning in order to keep notes. She took full advantage of this, but it was apparent early on that people had a great deal of difficulty finding anything unkind to say about her in the first place, although we did hear many funny anecdotes. In fact, the closest we came to an actual "roast" in any sense was the large, hand-made card from Mima Kapches depicting a couple of mouth-watering prime ribs.

Thanks to Christine Kirby (and others) for making the arrangements, Charles Garrad for acting as Master of Ceremonies, and everyone who attended, roasted, sent messages, donated, etc.

"ABC" AMERICA BEFORE COLUMBUS
NEW ENGLAND ANTIQUITIES RESEARCH ASSOCIATION
COLUMBIAN QUINCENTENARY CONFERENCE
Salomon Hall, Brown University, Providence, Rhode Island; June 18-21, 1992.

The 1992 quincentenary year is an appropriate time to review evidence of pre-Columbian trans-oceanic contact. This conference will present results of recent studies by researchers in North Atlantic, Mediterranean and Asian impact. The conference will feature lectures, poster papers and discussions by over thirty distinguished participants.

Speakers include George Carter, Honorary Chairman, Alice Kehoe, David Kelly, Cyrus Gordon, Mary Ritchie Key, Stephen Jett, Carl Johannessen, Mary LeCron Foster, Nancy Yaw Davis and Betty Meggers.

New England Antiquities Research Association was founded in 1964 to explore the origins of enigmatic stone structures throughout the Northeastern United States. Our research has expanded to include multidisciplined study of pre-Columbian contact and the subsequent impact.

Our exclusive use of Salomon Center, on the main quadrangle of Brown University offer an ideal conference setting. Dormitory housing will be provided and campus food service will be available. NEARA is making every effort to keep registration costs to a minimum.

For further information: Suzanne Carlson, 2 Oxford Place, Worcester, MA 01609. Telephone: (508) 752-3490; (508) 753-5187; FAX 401-949-5342.
"IMPACT AND INFLUENCE: EARLY NATIVE AND EUROPEAN CONTACT IN THE AMERICAS"

The 19th Annual O.A.S. Symposium will be held on October 24th and 25th, 1992 at the Metro Central Y.M.C.A. Auditorium on Grosvenor St., Toronto.

Topics will include such subjects as botany, disease, social and linguistic change and religion.

Among the confirmed speakers are the following:

Dr. Stephen Monckton  
Dr. Gary Warrick  
Dr. Alex von Gernet  
Mr. James Pendergast  
Mr. John Steckley  
Dr. Elizabeth Graham  
Dr. Karen Anderson

The Westbury Hotel is available for those wanting accommodation and the Friday evening Social, the Presidents’ Meeting and the Banquet on Saturday will be held there.

Enquiries......  
Symposium ’92, O.A.S. Office, 126 Willowdale Avenue,  
Willowdale, Ontario M2N 4Y2 - (416) 730-0797
What does the word ‘Toronto’ mean? A diverse variety of answers have been given to this question over the years. "Meeting Place" is the best known. Somewhat less often heard is its main competitor, "trees or logs in water". Others that have been put forward are ‘place or land of plenty’, ‘harbour’, ‘circular bay’ or just ‘bay’, and finally, the name of an otherwise unremembered Italian officer of engineers. Which is right? No authoritative study has ever been published that definitively places one contender above the others. Percy Robinson’s work of the 1930s, painstakingly complete, sets down the evidence for a number of meanings. Later writers such as myself owe him a huge debt of thanks for his thoroughness. However, he did not state a clear preference for any one translation. His work lacks critical analysis.

The aims of this paper are to establish that only one of the translations proposed has any likelihood of being correct, and to tie that meaning to a specific geographic point of origin. In order to achieve both of these aims, a historical study of the names of both Lake Simcoe and Toronto must be undertaken. Such is the case as the history of the word ‘Toronto’ begins with Galinee’s map of 1670, where the name "lac de Taranteau" was used to refer to Lake Simcoe (Robinson 1965:255). For more than fifty years after that, the name remained at that location. Other names for Lake Simcoe will also be analysed in this paper, in the search of the possibility that they may refer to the same or similar features as the name ‘Toronto’. This part of this study will begin with the first name associated with Lake Simcoe.

1.0 ‘Ouentaronk’: The First Name for Lake Simcoe

The first term recorded as applying to Lake Simcoe was a Huron one, ‘Ouentaronk’, as at the time of first contact the Huron lived in the area. The term appeared in two relatively distinct periods. The first was between 1641 and 1684:

<table>
<thead>
<tr>
<th>Term</th>
<th>Date</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Le Lac Ouentara</td>
<td>1641</td>
<td>Novelle France (Steckley 1990:26)</td>
</tr>
<tr>
<td>Ouentaronk</td>
<td>1639-1648</td>
<td>Corographie du Pays des Hurons (Heidenreich 1971 map 14)</td>
</tr>
<tr>
<td>Ouentaronius Lacus</td>
<td>1639-1648</td>
<td>(ibid)</td>
</tr>
<tr>
<td>Lac Ouentaronk</td>
<td>1639-1651</td>
<td>Description du Pays des Hurons (Heidenreich 1971 map 15)</td>
</tr>
<tr>
<td>Ouentaron L.</td>
<td>1656</td>
<td>Sanson's Le Canada ou Nouvelle France (Heidenreich 1971 map 9)</td>
</tr>
<tr>
<td>Ouentaronk Lacus</td>
<td>1657</td>
<td>Bressani’s Explicata Tabula (Heidenreich 1971 map 13)</td>
</tr>
<tr>
<td>Ouentaronk</td>
<td>1657</td>
<td>Bressani’s Novae Franciae Accurata Delineatio (Heidenreich 1971 map 10)</td>
</tr>
<tr>
<td>Lacus Ouentaronius</td>
<td>1660</td>
<td>Du Creux’s Chorographia Regionis Huronum (Heidenreich 1971 map 12)</td>
</tr>
<tr>
<td>Ouentaronc</td>
<td>1681</td>
<td>Mss 4040 (Robinson 1965:227)</td>
</tr>
<tr>
<td>Ouentarona</td>
<td>1684</td>
<td>Hack (Robinson 1965:226)</td>
</tr>
</tbody>
</table>

The term then virtually disappears, replaced by ‘Taronto’ and ‘Toronto’. It returns when its replacement moves south to the shores of Lake Ontario. This second phase lasted roughly from 1746 to 1785, according to the maps and other references to which I have had access.
After the arrival of Lieutenant-Governor John Graves Simcoe in 1793, the name of the lake was changed to his. This should not be surprising, as he was very active in replacing Native place names with British ones.

2.0 The Meaning of Ouentaronk

The word ‘ouentaronk’ begins with an -~ (ou) or -Q-. This points to the word being constructed with either an -a- or a consonant stem conjugation noun or verb root (see Steckley 1991:22 for a discussion of Huron conjugations). As no verbs in either conjugation take -entaronk-, we have to assume that the word involves a noun root incorporated into a verb root, as do a good number of Huron words. There are no appropriate noun roots in -a- stem conjugation, but with the consonant stem conjugation we have the very likely candidate -ent-, meaning ‘stick, pole’ (Potier 1920:446). It is a noun root that appears in other Huron place names (Steckley 1990:24).

The -ronk- is the hardest part to figure out. Looking at Father Pierre Potier’s 18th century list of verb roots we have only two plausible options that I can see, both with a flaw. One option is the following:

"aron...mettre q.c. a diverses distances l’une de l’autre onk, on, onde c...etre distant l’un de l’autre...etre a q. distance de lieu, de tems, etre multiplie en divers endroits, lieux c..." (Potier 1920:329)

With the noun root -ent- we would then have a meaning something like ‘poles spaced out over a given distance’. The flaw with this possibility is that this verb has a -g- written with it, which means that the pronominal prefix should be the feminine-zoic agent form -a- rather than the feminine-zoic patient forms -ou- or -Q-. Sometimes there is a dialect variance with this, so the flaw may not be that significant.

The other option is present in Potier’s dictionary as follows:

"aron (v karon) ... mettre de travers ronk, ronh8a, ronh8e...etre de travers...saepu impersonaler et cum te dual.../i.e., the dualic -te-, aentaron une perche, un buche travers" (Potier 1920:348)

If this were the verb in question, then the meaning with -ent- would be something like ‘poles that cross’. The problem with this option is that this verb form seems to require the dualic -te- as a prefix, and such is not evident in any of the forms of the word ‘ouentaronk’ that appear in the literature. This, to me, is a more serious flaw in etymology than what exists with the first option.

3.0 ‘Taronto’: The Second Term for Lake Simcoe

Beginning with Galinee’s reference of 1670, cited earlier, the most commonly found term used to apply to Lake Simcoe before it acquired its current appellation was ‘Taronto’. It was used almost exclusively from the 1670s to 1710, but dwindled in use significantly during the 1700s. This can be seen in the following list:
4.0 The Use of the Word ‘Toronto’

When did the -e- begin to appear as the second letter in this place name? Some sources claim that in 1680 the explorer La Salle was the first to use it (Robinson 1965:25), but that usage may just have appeared in the later English translation of the French that appeared originally in 1680 (Robinson 1965:25 fn3). On more solid historical ground are the following, all recorded before the building of the fort or post at the mouth of the Humber River, and the shifting of the name to that location:

4.1 Use of ‘Toronto’ Prior to the Construction of ‘Fort Toronto’

<table>
<thead>
<tr>
<th>Term</th>
<th>Date</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Le passage de Toronto</td>
<td>1686</td>
<td>Denonville (Robinson 1965:47)</td>
</tr>
<tr>
<td>Toronto</td>
<td>1686</td>
<td>Relatio (Robinson 1965:261)</td>
</tr>
<tr>
<td>L. Toronto</td>
<td>1695</td>
<td>Coronelli (Robinson 1965:227)</td>
</tr>
<tr>
<td>Baye de Toronto</td>
<td>1703</td>
<td>Lahontan (Robinson 1965:227)</td>
</tr>
<tr>
<td>Torontogueronnons</td>
<td>1703</td>
<td>Lahontan (Robinson 1965:227)</td>
</tr>
<tr>
<td>Lake of Toronto</td>
<td>1720</td>
<td>Moll (Robinson 1965:228)</td>
</tr>
</tbody>
</table>

It is difficult to establish who could be considered the primary ‘innovator’ of this form of the word. Clearly it is some form of mistake. The term ‘Toronto’ did follow ‘Taronto’, and it is extremely doubtful that an early error would be corrected by a later attempt at greater phonetic accuracy in representing a word in a Native language. Such does not seem to have been a concern for mapmakers of that time. In addition, ‘Toronto’ would have been less likely to occur as a form in the language in question, as we will see.

Denonville, Coronelli and Lahontan all showed themselves to be unreliable recorders of Native words. Denonville used both ‘Taronto’ and ‘Toronto’, as did Coronelli. The latter writer made a like error with how he wrote ‘Teyoyagon’ (see Steckley 1987:20 for the writing of this word), the Seneca village on the Humber River, transcribing it incorrectly as “Toiaiagon” (Robinson 1965:227) and “Toioiagon” (Robinson 1965:227). Lahontan was an unreliable source of Native language material, his Huron word list containing a large number of mistakes, notably many of them on the first syllable of the word. I suspect that it was through the influence of his writings that later authors used ‘Toronto’ rather than ‘Taronto’.
The use of ‘Toronto’ extended to the area of what is now Toronto. I know of no instance in which ‘Taronto’ was used for that location. A fort or post was established in the early 1720s along the shores of the Humber River. The following terms appeared in the late 1720s, prior to the abandonment of the post by 1730:

### 4.2 Early Use of ‘Toronto’ to Refer to the Post by the Humber River

<table>
<thead>
<tr>
<th>Term</th>
<th>Date</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toronto</td>
<td>1727</td>
<td>Besuharnois (Robinson 1965:82)</td>
</tr>
<tr>
<td>Toronto</td>
<td>1728</td>
<td>President of the Navy Board (ibid)</td>
</tr>
<tr>
<td>Toronto</td>
<td>1728</td>
<td>d’Aigremont (Robinson 1965:83)</td>
</tr>
<tr>
<td>Toronto</td>
<td>1729</td>
<td>President of the Navy Board (ibid)</td>
</tr>
</tbody>
</table>

By the 1740s and past the 1750s when the fort was built again, all references to the fort, and most to Lake Simcoe used ‘Toronto’ rather than ‘Taronto’. This was to end, for a short interlude, in 1793, when Governor Simcoe had Toronto’s name changed to York, part of his ‘purging’ of Native names. However, in 1834, it seems that the ‘voice of the people’ spoke, and the more popular Toronto returned for good. The following are typical examples of the use of ‘Toronto’ prior to the imposition of ‘York’:

### 4.3 Use of Toronto from the 1740s to the 1790s

<table>
<thead>
<tr>
<th>Term</th>
<th>Date</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>R. Toronto/the Humber river</td>
<td>1744</td>
<td>de Lery (Robinson 1965:90)</td>
</tr>
<tr>
<td>Lac Toronto</td>
<td>1744</td>
<td>Charlevoix-Bellin (Robinson 1965:228)</td>
</tr>
<tr>
<td>Toronto</td>
<td>1749</td>
<td>La Jonquiere (Robinson 1965:98)</td>
</tr>
<tr>
<td>Toronto</td>
<td>1750</td>
<td>La Jonquiere (Robinson 1965:101)</td>
</tr>
<tr>
<td>***Toronto</td>
<td>1751</td>
<td>La Jonquiere (Robinson 1965:113-114)</td>
</tr>
<tr>
<td>Lac Toronto</td>
<td>c1752</td>
<td>Vaugondy (Robinson 1965:228)</td>
</tr>
<tr>
<td>Toronto L.</td>
<td>1784</td>
<td>McMurray (Robinson 1965:229)</td>
</tr>
<tr>
<td>Lake Toronto</td>
<td>1794</td>
<td>Kitchin (Robinson 1965:229)</td>
</tr>
</tbody>
</table>

### 5.0 What Language Gave Us the Word ‘Toronto’?

There are a limited number of languages that the word ‘Toronto’ could have come from. Huron is a candidate, as those people lived in the Lake Simcoe area until the late 1640s. Some time around 1666 various Iroquois tribes moved north of Lake Ontario, so they too must be considered. Villages of the Oneida, Cayuga and Seneca were established on or near the northern shores, to be abandoned before the end of the century. Further east, but still in New France, were the Mohawk, who were the main Iroquois contacts for the French. Finally, there is a candidate from the Algonkian language family, the Ojibwa. They, most notably the Mississauga, moved from their traditional territory north of the Great Lakes to the south during the closing years of the 17th century.

All but two of the contenders can be eliminated by the presence of -r- in the word. Oneida, Cayuga, Seneca and Ojibwa do not have an -r-. That leaves us with Huron and Mohawk.

There are a couple of strikes against Huron as the source language. The name ‘Taronto’ first appeared 20 years after the Huron left the area. Secondly, as we have seen, there was a Huron term for Lake Simcoe, used when the Huron were there. Finally, there is no linguistic credence to the idea that ‘Taronto’ was just a bad copying of the Huron word ‘Ouentaronk’. It is more the case that with the relatively few consonants that exist in Iroquoian languages, similarity of consonant sequences is not unlikely to be purely by
chance.

This leaves us with Mohawk. There is only one potential stumbling block with this language, and that is more apparent than real. In modern Mohawk writing, the word for Toronto is 'ateru:to" (Michelson 1973:100).

The concern here is the -l!- being there rather than the nasal -Q- indicated by the -on-.18 This problem can be cleared up when you see that there is a regular correspondence, when comparing modern and early Mohawk forms, between -on- and -u-. This can be seen in the following:

6.0 What Does the Word "Toronto" Mean?

Writers presenting the word 'Toronto' in Mohawk have given it various forms, as can be seen in the following three examples:

6.1 Terms for Toronto in Mohawk

"ateru:to" (Michelson 1973:100)
"Tgarondo" (Louis Allen, in Robinson 1965:223)
"Toyoron'to?" (J.N.B. Hewitt, in Robinson 1965:243)

What these three forms have in common are the noun root -ront-/-ru:t-, meaning "tree, tree trunk, log" (Michelson 1973:100; also see Bruyas 1970:94 "Garonta, arbre") and the verb root -Q-, meaning "to be in water, put in water" (Michelson 1973:89 and 100).

Michelson's version differs from those of Allen and Hewitt in that the former is constructed with the reflexive prefix, represented by -ate-, while the latter two are constructed with the cislative prefix, represented by -t- in both entries. All three have a pronominal prefix meaning in this instance 'it'. I feel that the original Mohawk term had the cislative, a common feature in Iroquoian place names.19 However, because the French writers might not have heard or have been able to pronounce accurately the consonant cluster represented by Allen as -tg-, they would have reduced it to a more manageable -t-. I am suggesting, then, that the -ate- that is currently commonly used may have been a folk etymology20 trying to make sense of the altered word in Mohawk. Hewitt's etymology of the word is imaginative, like many of his etymologies, but the use of the -Q- pronominal prefix, as he presents it, is unlikely.

In conclusion, then, I am saying that the word 'Toronto' (more accurately 'Taronto" and possibly originally something like 'tkaronto") means something like 'where there is a tree or trees in water.' The obvious next question to be asked is to inquire as to what was being referred to. Some authors have mistakenly tried to connect it with Toronto's aboriginal aboreal 'skyline'.21 As the term first applied to Lake Simcoe, as we have seen, we must look to the feature of that lake for our reference.

I believe the feature in question was a set or sets of large stakes or poles used to construct a fish weir to trap the fish swimming between Lake Couchiching and Lake Simcoe in the fast flowing waters of what is known now as the Narrows. That I was able to come to this conclusion is largely due to the impressive array of pertinent material put together by Robinson (Robinson 1965:223). He presented linguistic evidence demonstrating the significance of the fish weir or weirs in the area:
"The French name for Lake Simcoe, Lac aux Claies, "fish-weir lake," might then be regarded as a translation of "trees in the water." The French name certainly refers to these fish weirs, and on the Coronelli map of 1688, underneath the name L. Taronto is written Les Piquets, "the stakes," an obvious allusion to the fish weirs. The Ojibways still speak of the Narrows as Michekun, which means "fence" or "the place fenced or staked off." (Robinson 1965:223)

My French dictionary gives "claie" as meaning:
"Tray (a fruits). Scree (crible/sieve/). Hurdle (barrier, cloture, supplice/fence or barrier, enclosure, hedgerow or grating, rack/" (Dubois 1979: 134)

Robinson's translation of the Ojibwa term is likewise justified, as in Baraga's excellent 19th century Ojibwa dictionary we have the following entries:
"Fence, mitchikan." (Baraga 1878:99)
"Mitchikan. Fence, enclosure, hedge." (Baraga 1878:254)

To this can be added further suggestive linguistic evidence from Lahontan's map originally published in 1703. Slightly northeast of Lake Simcoe, close to the Narrows, he has placed the term "Torontogueronnons" (Lahontan, in Robinson 1965:227). This term can be translated as 'people at Toronto' (i.e., at the Narrows). We can add to this the translation of the Huron term for Lake Simcoe, 'Ouentaronk'. Whether it can be interpreted as 'poles spaced out over a given distance' or 'poles that cross', or some other reference to 'poles', we see its closeness to the other terms for Lake Simcoe.

We know from archaeological evidence (see Kenyon 1966:1-4) and from the writings of Champlain (Champlain 1929:56-7) that fishing with weirs at the Narrows was significant prior to the appearance of the name 'Toronto'. Heidenreich informs us that even today the Narrows is a major spring source of walleye, suckers and pike (Heidenreich 1971:211). Taken together with the linguistic information, we have a solid case for believing that the fish weir or weirs were the most significant features relating to Lake Simcoe in the 17th century, significant enough for the name for the weir or weirs to stand as well as the name for the lake.

7.0 Meeting Place and the Bay: Catching the Red Herrings

In William Hamilton's "The MacMillan Book of Canadian Place Names," he states that Toronto is "usually thought to be a Huron word translated as "a place of meeting" (Hamilton 1978:208). Unfortunately, this is true. Most people who have a meaning for the word Toronto in their minds have the words 'meeting place' embedded there. How did this interpretation come into being? Why did it become so popular? Most significantly, why is it wrong?

The nineteenth century historian, Henry Scadding, through such influential works as "Toronto of Old" (Scadding 1873) and "Toronto Past and Present until 1882" (Scadding 1884), certainly was the popularizer of this translation. He does not, however, seem to have been its originator. In 1891 he wrote:

"There has been a long continued tradition in these parts of two interpretations of the Indian word Toronto: how or when these interpretations began to circulate among us I cannot recall. I certainly heard of them from the earliest moment of my residence here. They were generally understood to be meanings given by Indian interpreters of a former period, and certain reasons were usually assigned for the explanation of the word in the two several meanings give to it. 'Place of Meeting' was supposed to refer to certain gatherings of the Indian bands or tribes at this spot periodically for purposes of traffic, or for hunting expeditions, or it may be for hostile excursions." (Scadding, in Robinson 1965:222)

He then went on to speak of 'trees in water' and told of people tying that reference to some area in Toronto, making no reference to the Lake Simcoe connection.

Where did the first sense of Toronto meaning
'meeting place' come? Perhaps where people gathered together to use the fish weirs at the Narrows was known as a meeting place. Sometimes the translation for a place name and a description of some aspect of what it refers to can be confused. Perhaps the later location, by the mouth of the Humber River, was known to be a meeting place, a place perhaps for trade.

7.1 Verb Root Connected with "Toronto" as It Appears in Sagard and Lahontan

<table>
<thead>
<tr>
<th>Entry</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Il y en a beaucoup. Toronto, Instouhanne.&quot;</td>
<td>(Sagard 1866:111)</td>
</tr>
<tr>
<td>&quot;Il y a beaucoup de ranees qui esgratignent, picquent, blessent. Toronto ennoddocha esconchotie.&quot;</td>
<td>(ibid)</td>
</tr>
<tr>
<td>&quot;Il n'en a pas beaucoup. Stan tecatararonton.&quot;</td>
<td>(ibid)</td>
</tr>
<tr>
<td>&quot;Beaucoup. Toronto, Ouen.&quot;</td>
<td>(ibid)</td>
</tr>
<tr>
<td>&quot;very much - atoronton&quot;</td>
<td>(Lahontan 1970:748)</td>
</tr>
</tbody>
</table>

Scadding may have made a different analysis had he access to the more phonetically accurate material written by the Jesuit missionary linguists, and had he learned from Jesuit writing even a rudimentary knowledge of Huron verb morphology. The verb root in question was written and translated by Jesuit Father Pierre Potier in the following way:

"atonronton...y avoir beaucoup de q.c...etre plusieurs ensemble" (Potier 1920:200)

This makes Scadding's analysis look bad in that none of the term of reference to either Lake Simcoe or Toronto have these or any other pronominal prefixes represented. Other major criticisms of Scadding's etymology include that there is no explanation why -ta- appears first and most consistently in the early writings. Perhaps, to be fair, he simply was not aware of most of them. Further, there is no explanation for why both the first and the third vowel -o- are not nasalized (i.e., represented by an -n- following the vowel. This is all independent of the fact that he claims it was a Huron word, when it being a Mohawk word makes more sense.

In the Ontario Archaeological Report of 1899, General John S. Clark advanced another theory, quoted and seriously considered by Robinson. In the linguistic amateur general's view:

"Toronto is an abbreviated compound word, somewhat disfigured, but based on kaniatare, lake; and iokaronte, a gap, breach, or opening, then it has always been the name of Toronto Bay considered simply as a bay." (Clark 1900:191)

He was referring to the Mohawk noun root -nyatar-, meaning "river, lake, body of water" (Michelson 1973:86) and the verb root -kahrut- meaning "it has an opening or hole in it" (Michelson 1973:65). The combination would have yielded something like 'onyatarakahrute', which does not even with a good imagination even remotely resemble 'Taronto'.

Acknowledgement

Thanks to Charles Garrad for supplying sources I would not otherwise have been able to find.
Footnotes
8. Some writers claim that the recorded history of the word 'Toronto' began with the appearance of the name "Tarantou" in Sanson's map of 1656 entitled "Le Canada ou Nouvelle France" (Hamilton 1978:208 and Moir 1977:96). This map has the name placed east of Lake Nipissing (Heidenreich 1971, map 9). There are several difficulties with this claim. Firstly, there is an earlier use of this term at the same location--as "Terontov" in "Novvelle France" in 1641 (llteckley 1990:27). Secondly, in both maps there are versions of the Huron term for Lake Simcoe. If the term is Huron, then one term should not be replacing another. If the term is Mohawk, there is no compelling reason explaining why this name would 'migrate' to Lake Simcoe once the Huron left the area. This is outside of the need to explain the etymology of the final -ov-.
9. This particular form was chosen as basic as:
   a) the -ou- appears in the earliest forms and in most of the first period words;
   b) the -entar- appears in all first period words;
   c) -onk- appears in most forms.
10. They seem to be taking Bressani's form, presented in 1.1, as their model.
11. "Lasting evidence of Simcoe's plan to transform Upper Canada into a "little England" can be seen in his choice of place names. In 1793 the governor travelled through the colony, literally choosing new designations. He went as far west as Detroit, confirming on route his choice of a site for the future capital at the place the Anishinabeg/Ojibwa called "Ko-te-quo-gong" (At the Forks), at the headwaters of the Ashkanesebe (Horn or Antler River). The governor renamed Kotequogong as London, and the river that the Anishinabeg had named because its branches reminded them of a deer's antlers became the Thames. He also travelled to Toronto...which he named York. Intent on re-casting Upper Canada into a little England overseas, Simcoe now changed the names of the two major rivers in the Toronto area to the Humber and the Don, two rivers in northeastern England. When asked what he thought of John Graves Simcoe's contribution to the colony, Joseph Brant replied: "General Simcoe has done a great deal for this province; he has changed the name of every place in it." (Francis, Jones and Smith 1988:200).
13. This is referring to Matchedash in Georgian Bay.
14. Contrast, for example, the following entries in Lahontan's Huron word list, with the more complete and accurate versions in Jesuit sources:
   Lahontan/Jesuit Sources
   "Jesuit - tsistatsi" (Lahontan 1970:748)/"Les jesuites hatitsihenstatsi" (FH1697:250)
   "Soldiers - skenraquette" (Lahontan 1970:748)/"Soldat. hoskenra,ete" (FH1697:196)
18. It is interesting in this regard that the first example of 'Taronto' had what appears to have been a nasal -ji- or -l!-.  
19. Examples in Huron on "karontaen" for Detroit (Potier 1920:154), "ekandataia" for Charlebour (FH1697:250) and "tionnonchiand8te" for Beauport (FH1697:250).
22. I have found this to happen even with recent translations. In 1989 I named the now aborted housing project "Ataratiri". The name
means "supported on clay". In my explanations to a long series of committee meetings I said that it referred to a village by a river (i.e., St. Louis). In a Globe and Mail editorial concerning the demise of the housing project it was stated that "Ataratiri is a Huron word meaning "village by the river built on clay." (March 13, 1992). Not exactly.
24. Sometimes the Jesuit missionary linguists would drop the initial vowel's nasalization, as in the following two examples:
"Beaucoup. Multitude. Oto'ronton..." (FH1697:22)
"beaucoup...de chiens ondatoronton anienonn" (FH1693:32)

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Dear Editor:

I commend to the attention of the OAS membership the editorial essay in the most recent American Antiquity (57,1:3-5). Though entitled Advice for Young Scholars it can be read with profit by archaeologists of all ages, especially, though not exclusively, by those contemplating sending something to Ontario Archaeology. Changing what is obviously changeable (OA does not deal in Spanish; there is only one editor rather than seven; and we use only two reviewers, not four) the procedures and philosophy set out in the Am Antiq piece apply also to OA. I draw members’ attention particularly to the paragraphs dealing with the revise-and-resubmit procedure, the practical tips for publishing, the need for a well-written abstract, the common errors to avoid, and particularly to the recommendation that contributors get friends and colleagues to go over their submissions with them before sending them on to the magazine.

More generally it should be noted that the practices employed, and the problems faced by your editor are not unique to Ontario Archaeology, but are more or less standard across North America. I do what I can to get OA before the members reasonably regularly and to ensure a reasonable quality of the product. Perusal of the Am Antiq editorial may show the membership how they can aid in the OA editorial process.

Sincerely yours,
Dr. Peter Reid, Editor, Ontario Archaeology

Dear Editor:

I would like to thank the Board of Directors of the OAS for the Roast held in my honour on March 27, 1992 at historic Oakham House in Toronto. It was truly heart-warming to see so many friends, colleagues and members of the OAS there to lend a hand with the basting or just to watch me sizzle. I had never been to a Roast before and did not know quite what to expect. So many nice things were said about me; it could have been a lot worse!

I was really pleased to discover that a modest amount of money was raised via the event for the Ontario Archaeology Endowment Fund. I would like to offer sincere thanks to everyone who attended and to those who were unable to attend but who sent letters and donations. I was truly touched by your generosity and kindness.

Best regards,
Christine Caroppo

VOLUNTEER AVAILABLE
Recent Physical Anthropology grad entering masters program in fall seeks field and/or lab experience this summer. Prefer human osteological focus, but will consider any archaeological project. Willing to work cheap--just cover my expenses. Oakville based, but have car and am willing to travel. Contact Carole Fisher at 842-1889
THE SECOND END OF AN ERA

There may be members today to whom the names Emerson and Ridley are not familiar. When present students of Ontario Iroquoian studies first discover the many publications of these two men they may be surprised at the extent of their respective contributions. Dr. J. Norman Emerson, Chair of the Department of Anthropology, University of Toronto, and the father of our Society, died in 1978. Frank Ridley, a dedicated avocational archaeologist whose researches took him even to China and Russia during the cold war, died in 1985. Obituaries in ARCH NOTES record their respective careers. The Society instituted awards to commemorate both of them, one by a silver medal, the other by an honorary title. Both of them were awarded Honourary Life Memberships in the Society when they were active, and when they died the Society offered to continue the recognition to their surviving spouses, in recognition of the role they played in the achievements for which their husbands are largely given the credit. Both ladies, Mrs. Ann Emerson and Mrs. June Ridley, declined, but remained in touch as friends of the Society, and assisted in any way they were asked. Now within a short time, each has sold and is in the process of moving. Mrs. Ridley will remain in Ontario but Mrs. Emerson's new address will be the State of Washington. On behalf of The Ontario Archaeological Society we extend to you both, Ann and June, sincere good wishes for the future, ask you to keep in touch, and assure you that our Society will ensure the work of your respective husbands will continue in this province.

CHRISTINE and MICHAEL KIRBY NOMINATED TO BE "FRIENDS"

The Ontario Heritage Foundation's presentation of 1992 Friends of the Niagara Escarpment Awards will take place June 4, 1992, at Burlington. The Friends of the Niagara Escarpment Awards Program "recognizes significant voluntary participation by individuals in preserving the special heritage features of Ontario's Niagara Escarpment". Archaeology is, of course, such a feature, and archaeologists specialising in Escarpment areas are likely to be nominated to become a "Friend of the Niagara Escarpment". This year former Society Treasurer Christine Kirby and present Treasurer and ARCH NOTES Editor Michael W. Kirby were nominated, for their archaeological survey work in the Beaver Valley. Congratulations Christine and Mike.

1993 INTERNATIONAL GIRL GUIDE EVENT

The Girl Guides of Canada International Event will be held in Guelph July 12-22, 1993. 2,500 girls aged 12 to 16 years and from many countries will be interested in field trips to local archaeological and historic sites, and particularly in the possibility of some hands-on archaeological experience. The OAS has been asked to suggest suitable field trips and has already provided a tentative list. So that we don't overlook any, all attractions within an hour of Guelph interested in hosting visiting Girl Guides are asked to contact the OAS office and, if they wish, send literature directly to Mrs. Irene C. Rose, 52 Ponderosa Drive, Lake Echo, Nova Scotia BOJ 2S0. Contact OAS office for more information.
GUELPH 900 BC

Under the title "GUELPH 900 BC" a major archaeological dig will be held this year on the grounds of the University of Guelph, Guelph, Ontario. Organized by Ken Oldridge, Vice-President of the Grand River Waterloo Chapter, and the Chapter, directed by John D. A. MacDonald, the work will be substantially funded by the federal Government's SEED program to allow eight paid excavators. The site, from a preliminary assessment, is believed to be a multi-component Archaic site with two foci. Chert projectile points assigned to 6,500 BC, 2,500 BC, 1,500 BC and 900 BC have been found, so that the site is in part older than the title GUELPH 900 BC suggests.

Excavation opportunities during the week and every weekend in July will be available to registered participants in the Society's Passport-to-the-Past program, to members and guests of the Grand River Waterloo Chapter, and to volunteers from the Society. Passport members will be given priority and details are in the process of being sent to them. Other volunteers may register by calling the Director John D. A. MacDonald at (519)579-1023, or Ken Oldridge at (519)821-3112. Information will also be at the OAS office at (416)730-0797.

The Ontario Archaeological Society will provide supporting financial, insurance and administrative services for the dig. The Society will also sponsor a public and media "opening ceremony" and tour of the site at 2.00 p.m. Saturday August 1. The excavations will be well under way by this date and the result of the crew's labours will be on display. Please mark your calendar "Guelph, August 1, 2 p.m." and plan to attend if you are able. If you wish to contact the office near the event date to confirm arrangements, please do so.

ONTARIO ARCHAEOLOGY ENDOWMENT FUND APPEAL

The Honour Roll continues to grow as members respond to the appeal to endow ONTARIO ARCHAEOLOGY with a permanent fund, which the Ontario government will match three-to-one. New contributions have been received from Neal Ferris, Dorothy Hunt, Richard Jarol, Thomas Kenyon, Norma Knowlton, Phillip MacFarlane, Stephen Pring, Jane Sacchetti and J. V. Wright.

In return for three cheques postdated a month or two apart for $10 each, you will receive a donation receipt for income tax purposes, help to ensure the permanency of ONTARIO ARCHAEOLOGY, and the government will quadruple your donation. Cheques made to The Ontario Archaeological Society and marked OA ENDOWMENT FUND should be sent to the office.

HEAD-OF-THE-LAKE HISTORICAL SOCIETY

Hamilton member Stewart R. "Stu Rasuli" Leslie, who also doubles as President of the Head-of-the-Lake Historical Society, cordially invites everyone in the Hamilton area to share in the activities of the Head-of-the-Lake Historical Society. Meetings are held the second Friday of the month from October to May, with a field trip in June. The current fee is $10 per year. Memberships are available at the meetings and at the Society's address, P.O. Box 896, Hamilton, Ontario L8N 3P6, phone (416)521-3060.

TVO HOME STUDIES CALENDAR 1992

The Home Studies Distance Learning Division of TVOntario Calendar for Spring and Summer 1992 is released. ORIGINS: A HISTORY OF CANADA will air Fridays 6.00-6.30 a.m. starting May 1, 4.00-4.30 p.m. starting June 5, 16 programs. ANCIENT CIVILIZATIONS will air Thursday 6.30-7.30 a.m. starting June 11, Saturday 4.00-4.30 p.m. starting June 13, and on cable Sundays 4.00-4.30 p.m. starting June 14. ARCHAEOLOGY FROM THE GROUND UP is not listed but the Society has video-tape copies of the series which will be available to members to borrow when the Chapters have finished with them.

THUNDERHEART

A movie you should see

Of the trilogy "Dances with Wolves", "Blackrobe" and "Thunderheart" this is in some ways the most impactful and disturbing.
With the other movies there is always the consolation that that was 'then' for which the present generation is not responsible, and that in our time the First Nations are treated more justly. With "Thunderheart" you are allowed no such retreat. It is about the 'now' and based on real incidents and conditions on Indian 'Reservations' (U.S.) in the 1970s and that could be well continuing today there and in Canada. The principal plot is that the 'legitimate' (i.e. government recognized and supported) Reserve government conducts a reign of terror with the support of the FBI to supposedly eliminate (= murder) 'resistance' by traditional, 'resistance movement' and enlightened (e.g. university-trained schoolteacher) Indians, but in fact to eliminate opposition to the development of uranium mining, the preliminary stages of which are already poisoning the reserve water supply and causing sickness. The sub-plot is that a young FBI agent sent to the reserve to arrest a suspect thought to have killed one of the 'resistance' members figures out he has been set up to legitimise a murder actually arranged by the FBI. In the process he encounters ancient Indian beliefs and surviving practices and develops an empathy and sympathy to the rightness of the Indians' cause, to be themselves. Unfortunately, the story provides that his arrival at this recognition is not by the intellectual and human recognition of a situation which is morally wrong of which we are all capable, but supposedly because he has a small percentage of Indian blood, by which argument the outside white world is inferentially absolved when it should not be. In the end his own murder by the 'legitimate' Indians and the FBI is prevented and he is saved by the traditional Indians he had initially viewed as enemies. One is left hoping that this really is symbolic of the future of our own civilization and understanding, and that we will, in the words of one of the principal characters, learn to listen to the trees.

PASSPORT-TO-THE-PAST PROGRAM UPDATE

To the date of writing the office has mailed four Volunteer Opportunity Bulletins for 1992. A fifth Bulletin, announcing the first of two major excavation opportunities, is in preparation. If you are not receiving Volunteer Opportunity Bulletins and believe you should be because you were once registered in the program, please advise the office.

The fee to join the program, receive a Passport document and Volunteer Opportunity Bulletins for the first year remains $10. For subsequent years the annual service fee toward the cost of mailing the Bulletins is $5.

New Agencies are solicited for the Passport program and existing Agencies are asked to please report opportunities for Volunteers.  

1992 OAS SUMMER BUS TRIP IS 'GO'!

The one-day "CELEBRATE WITH SIMCOE" bus trip to Niagara-on-the-Lake to see the re-enactment of the arrival of Lt.-Governor Simcoe on July 4 is ready to roll. En route we shall stop at Burlington Beach to inspect the site of the King's Head Inn, the first Inn in the area and built in Simcoe's time. From this spot we should be able to chart the progress of the "Tall Ships" flotilla crossing Lake Ontario on their way from Toronto to meet us at Niagara-on-the-Lake. At St. Catharines we shall pick up Niagara Chapter President Jim Pengelley and members, who will accompany us. Events, activities and demonstrations start at 7.00 a.m. (without us!) and continue all day. We should arrive for the 11.00 a.m. "march through the streets, drums beating, swords drawn and bayonets fixed" and be well in place by the time the "Tall Ships" arrive at 1.00 p.m.

A flyer with details was enclosed with the last ARCH NOTES. If you have misplaced it, call the office for another, and to reserve your seat. At the time of writing there are ten seats still available.

NOTE: the bus will park at Fort George, where most of the events will occur after Gov. Simcoe arrives. According to the Niagara-on-the-Lake Chamber of Commerce, all other event locations, Queen's Royal Park, mouth of Niagara, Butlersburg and Navy Hall, are within convenient walking distance of Fort George.
THE SEARCH FOR JULIE STANTON
An unusual opportunity for members of the archaeological community to serve society at large with archaeological experience and expertise presented itself when the Durham Regional Police and Dr. Jerry Melbye of Erindale College organized a search for the lost Julie Stanton in an area of dense bush near Port Perry on May 3, some two years after Julie disappeared. Although announced with less than two weeks notice, one hundred Bulletins were made and sent at Society expense to registered members of the Passport-to-the-Past program and selected OAS members east of Yonge Street. The search team maximum of thirty participants was easily achieved and included members of the Police, students from Erindale, Julie’s father and twelve OAS members who responded to the call.

Orientation at the Police Station by Jerry Melbye fine-tuned us to search for protruding or buried human bone, clothing, recent graves. We set off in a convoy of fourteen miscellaneous vehicles behind the huge Police Mobile Command Post to the visible puzzlement of other motorists. The day was fine but followed a Saturday of torrential rain which we encountered as swamps. We found that keeping organized and distanced lines in tangled and matted cedar and mixed growth swamps was as much a challenge as keeping dry and clean. After developing the technique of thrusting the head first into the growth to break trail we found that mysterious and uncomfortable bits of irritant made their lissurely way down the collar and down the back inside the underwear to gather at the belt line. When we stood up at lunch time there was some noticeable scratching and jiggling about which brought relief, it may be presumed, by allowing the anonymous invader to continue on down the pant leg to end up, if the day was long enough, in the boot which, like as not, also contained water. On entering the bush we were pleased to find bones almost immediately, but relieved when they were pronounced to be deer. On returning to the road from the first sweep the count was two deer and a rabbit. We assumed that the wisdom of having archaeologists on such a search was proven. However, these were the last bones we found all day. After three sweeps at the first location and an itchy lunch at the roadside, we moved to a second location. After two more sweeps the second location was pronounced too wet to continue, and so we broke up for the trip home somewhat before the anticipated 4.00 p.m. finish.

We did not find the remains of Julie Stanton or anything that might help. We did however meet her father, John Stanton, who accompanied us, and found cause to admire his coping with unimaginable grief and despair. We can only hope that the willingness of OAS members to turn out at such short notice to help find his missing daughter, even though unsuccessful, brought him in some way a measure of reassurance that his grief and concern is shared. That thought made the day worthwhile.

Dr. Melbye will hold another sweep of the second area when it is dryer. A public search will be held Saturday May 23. If you can participate you will find it a worthwhile adventure. All interested members can meet at 10.00 a.m. at the Port Perry Station of the Durham Regional Police. If enough show up we will form our own “squad”. For a map or instructions for reaching Port Perry, contact the OAS office.

FRANK RIDLEY LIBRARY BEING SOLD
Mrs. June Ridley has sold the house on Burnamthorpe Road where she and Frank lived for some fifty years, and which was an international mecca for archaeologists while Frank was active. Frank’s artifact collections were donated soon after his death in 1985 but his extensive archaeological library remained intact in the house until the sale. Much of it, including complete runs of the Champlain Society and Hudson Bay Record Society publications, was acquired by the bookseller Hugh Anson-Cartwright, College Street, where it is now for sale.

FAREWELL TO MRS. EMERSON
Mrs. Ann Emerson has announced her forthcoming move to the USA on May 15. A
series of farewells have been held, one attended by Helen Devereux, Ella Kruse and Charles Garrad for the OAS. Daughter Lynn will follow later, leaving Bruce, who resides in Midland and works at Ste. Marie-Among-the-Hurons, to represent the Emerson name in Ontario, at one time synonymous with academic archaeology in the province. The Emerson papers, records and collections with the Department of Anthropology, University of Toronto, are being collated and organized by Helen Devereux.

UPDATE ON ONTARIO ARCHAEOLOGY

ONTARIO ARCHAEOLOGY 53 was mailed out early in April. ON54 is progressing and will be published this year. Manuscripts for consideration for ONTARIO ARCHAEOLOGY on diskette or hard copy may be sent to the office or (if three hard copies) directly to Dr. Peter Reid, Dept. Sociology and Anthropology, University of Windsor, Windsor, Ontario N9B 3P4. The requirement of three hard copies is waived for text submitted on either size diskette in any version of Word Perfect. The Society will bear the cost of producing the required copies from the diskette.

RETURNED MAIL

HELP! OAS3 and AN92-2 mailed by the OAS to the following folk were returned by Canada Post as 'moved' or 'unknown'. How can this be? If you know them, or where they are now, please pass the information to the OAS office or ask them to contact the office. Many thanks for your help.

James Edwin PEACE, returned from Hannon, Stephanie THOMAS, returned from Toronto, Trevor C. TROWER, sent to Bobcaygeon, returned from Florida

We thank those who have helped locate missing members in the past and ask you to continue to do so.

INTERNATIONAL MAIL

This week we received a letter from the National Museum of the American Indian, New York, mailed from Copenhagen, Denmark; a second communication from an organisation in Tehran, Iran, that wants to pair us off with the Australian Rock Art Society; and a research request from a pipe researcher in South Africa. The OAS address is listed in a number of international directories.

RENEWAL TIME!

Relax. This message applies only to those members whose membership fees are due between May 31st and July 31. Renewal reminders will be neatly tucked into this ARCH NOTES. Your receipt will be enclosed in the next ARCH NOTES.

HELLO FROM NORMA

Although I have been a member of the OAS since 1971 and have served as Program Convener, Recording Secretary and Director at various times, I have recently acquired a new perspective. Being Assistant to the Executive Director, really the "Girl Friday", entails initiation into the workings behind the scenes. The setting may appear to be a small and simple business office, but those filing cabinets and boxes contain undreamed of amounts of information accumulated through the history of the Society, arranged in unique ways invented by our Executive Director. Of course, Charlie has taken more than thirteen years to build up this system. Gradually I am making progress in assimilating it all.

Learning the various tasks to be done, even to deal with the application of a new member, is only the beginning. The ringing of the telephone may herald a report from a Director, a teacher enquiring if we give talks in schools, someone asking for the views of the archaeological community on some complicated political matter, a schoolgirl wanting definitive information about Atlantis, or an advanced student in need of sources (which we can usually provide from our library on the premises). Many of these calls are referred to the OAS by the ROM, the OHF and other such organizations with better facilities. It seems my most frequent comment is, "What do we do about this?".

Just as I think I have some procedure well in hand, something new crops up. I think I can handle the mail (simple, you say?) quite competently by now. Each week brings things
I haven't dealt with before. The biggest problem is what to do with enquiries from people who attribute to us sorts of expertise. Some enquirers apparently are under the impression we are employers of archaeologists. And then there was the lady in Oregon who demanded we answer her request for information as to the location of a town in Canada named "Biff", which may or may not have existed in the nineteenth century.

All in all, this is proving to be a very educational experience. Perhaps the greatest eye-opener is the wide sector of the public we reach. However, expectations are sometimes unrealistic, given our resources. As members of the Ontario Archaeological Society, we all need to explain the Society better. See, for example, the following letter...........

LETTER TO THE OAS
undated, received March 24, 1992
Dear Sir,
I am writing upon the recommendation of Professor Ezra Zubrow of the State University at Buffalo, New York; Professor Richard Davis of Bryn Mawr College and Professors Bernard Waines and Robert Schuyler of the University of Pennsylvania... I am interested in learning whether there are any jobs on archaeological excavations... I am interested in Arthurian England... Medieval History... science, mathematics and language... Latin... Spanish. I have made time to read works about Arthurian archaeology and history... I have also a genuine interest in the archaeology of the Native Americans and Historical Archaeology... I have accompanied my parents... to visit several Native American ruins and reservations such as Mesa Verde and Chaco Canyon and Prince Edward Island. I have taken advanced courses dealing with archaeology such as Greek Archaeology, Human Evolution... Paleontology... Is there any type of excavation work that you are offering for someone with my range of interests? If you do not have any type of work for me, I would appreciate it if you could send a copy of this letter to someone who might be able to help... Sincerely yours,

Mark Schwartz, Swarthmore College, Swarthmore, PA 19081, USA.

(The full letter and attached cv is available to anyone able to help Mark Schwartz and who will contact the OAS office.)

O.A.S. LONDON CHAPTER MOVES TO
GROSVENOR LODGE
The city of London has recently donated a well known heritage property, Grosvenor Lodge, to local heritage and environmental groups for use as a resource centre. As part of the coalition, The London Chapter of the OAS will have a permanent office.

Plans for the new office centre include a library, display room, meeting rooms and space to hold workshops or lab nights. Donations of books, journals or newsletters for the new library would be gratefully accepted.

Our grand opening for the centre will be held on Wednesday, 24th June, with demonstrations, barbecue and entertainment. This will be an all day celebration and we hope that many of our chapter and provincial membership will be able to join the festivities. Hope to see you there.

In other news, Pete Timmins, our LACAC representative, has been busy in recent months trying to persuade the city of London to develop an Archaeological Master Plan or to incorporate archaeology into the present Heritage Master Plan.

ARCH NOTES

Deadlines for 1992:
January/February issue - Jan. 15
March/April issue - March 18
May/June issue - May 13
July/August issue - July 15
September/October issue - Sep. 16
November/December issue - Nov. 11

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Secretary: Tom Arnold, Grosvenor Lodge, Western Rd., London, Ontario
Newsletter: KEWA  - Editor: Tom Arnold
Fees: Individual $15 Meetings: Usually at 8.00pm on the 2nd Thursday of the month, except June - August, at the London Museum of Archaeology.

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Newsletter: THE THUNDERER  - Editor: Jim Pengelly
Fees: Individual $10 Meetings: Usually at 7.30pm on the 3rd Friday of the month at Room H313, Science Complex, Brock University, St. Catharines.

OTTAWA  President: Ishtar Luesby (613) 233-2398
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Newsletter: THE OTTAWA ARCHAEOLOGIST  - Editor: Peggy A. Smyth
Fees: Individual $15 Meetings: Usually at 8.00pm on the 2nd Wednesday of the month, except June - August, at the Victoria Memorial Building, Metcalfe & McLeod Streets, Ottawa.

THUNDER BAY  President: Frances Duke (807) 683-5375
Vice-President: George Holborne  Treasurer:
Secretary: 331 Hallam St., Thunder Bay, Ontario, P7A 1L9
Newsletter: WANIKAN  - Editor: A. Hinshelwood
Fees: Individual $5 Meetings: Usually at 8.00pm on the last Wednesday of the month, except June - August, at Room 561A, Sidney Smith Hall, 1825 East Arthur Street, Thunder Bay.

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Secretary: Annie Gould, Box 241, Station "P", Toronto, Ontario, M5S 2S8
Newsletter: PROFILE  - Editor: Valerie Senstenes
Fees: Individual $10 Meetings: Usually at 8.00pm on the 3rd Wednesday of the month, except June - August, at Room 561A, Sidney Smith Hall, St. George Street, Toronto.

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Newsletter: SQUIRREL COUNTY GAZETTE  - Editor: Peter Reid
Fees: Individual $7 Meetings: Usually at 7.30pm on the 2nd Tuesday of the month, except June - August, at the Public Library, 850 Ouellette, Windsor.
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