Ontario Archaeological Society

26th Annual Symposium
Waterloo, Ontario
October 29-31, 1999
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The Shaw Festival
Sportsworld
Gordon D. Watson
Woodside National Historic Site
Welcome to the 1999 OAS symposium

The 1999 annual symposium of the Ontario Archaeological Society is being hosted by the Quaternary Sciences Institute (QSI) of the University of Waterloo in partnership with the Grand River-Waterloo Chapter of the OAS.

The Quaternary Sciences Institute was founded in 1987 with the mandate to further research in all areas embracing the Quaternary Period—the last two million years of geological time (the Pleistocene and Holocene epochs). More specifically, QSI’s mandate focuses on the investigation of Quaternary environments and history, as derived from such studies as anthropology, climatology, geochemistry, geomorphology, geophysics, geotechnique, paleoecology, paleontology, pedology, and stratigraphy. Archaeology has been a significant component of QSI activities from the beginning, thanks in part to the vision of founding director Paul Karrow whom many will recall as a past president of the OAS.

QSI is very pleased to have formed a partnership with the Grand River-Waterloo Chapter of the OAS in order to host the 1999 annual OAS symposium. The Programme Co-chairs for this event are Robert Park, representing QSI and the University of Waterloo, and Dean Knight, representing the Grand River-Waterloo Chapter of the OAS and Wilfrid Laurier University. Assisting Park and Knight in organizing the symposium is the deputy-director of QSI, Robert MacDonald.
**The Theme**

With their unique long-term viewpoint, archaeology and paleoecology together have the potential of providing us with an important perspective on the future implications of human-induced changes in our environment, already occurring on what may be an unprecedented scale. What have we learned about human interactions with Ontario environments over eleven millennia, and about the changing nature of those environments over that same period? We therefore solicited papers addressing the fairly broad paleoecological theme outlined in the symposium title: The Human Ecology of Ontario’s Eleven Millennia: People, Environment, Change, and Adaptation Throughout the Holocene. Following a long-standing and honourable OAS tradition, we also have a diverse range of papers on other topics as well.

**Events**

The symposium commences on Friday with a public lecture, followed by a reception. Saturday is devoted to a full day of papers, the annual business meeting, and the banquet in the evening. Cushioned by the extra hour provided by switching back to standard time overnight, Sunday morning sees another rich slate of papers.

**Banquet**

October in Waterloo Region wouldn’t be complete without Oktoberfest so we’ll be serving up plenty of Gemuetlichkeit at our Bavarian theme banquet at the Waterloo Inn. Highlights of the banquet will be a ceremonial Keg Tapping staged by the official Kitchener-Waterloo Oktoberfest committee, with a glass of beer for all wishing to partake, plus entertainment by the renowned Beirdo Brothers.

**J. Norman Emerson Medal**

At the banquet, the Ontario Archaeological Society’s Emerson medal will be presented to William E. Renison, a charter member and former president of the OAS.

**Raffle**

A raffle will be held Saturday afternoon, before the business meeting. Tickets will be on sale at the registration desk until the raffle. A complete list of the prizes will be posted at the registration desk but they will include a voucher for a pair of tickets to the Shaw Festival to see Daphne Du Maurier’s classic thriller Rebecca; a family pass to the Doon Heritage Crossroads living history museum in Kitchener, and invaluable Y2K supplies to get the lucky winner of that prize safely through the first few days of the year 2000. All proceeds from the raffle are being used to subsidize student attendance at the conference in these days when undergraduate tuition is almost $3900 per year!

**Bookroom**

The symposium bookroom, located in room 1331 of the Davis Centre (see the map on page 20) will be open Saturday until 3:30 and again Sunday morning.
Symposium Timetable

Friday Evening
7:30-8:45 .......... Ice Age Beginnings: The Archaeology and Natural History of Ontario’s First People - Peter L. Storck

Saturday Morning
8:30-9:00 .......... Coffee and registration
9:00-9:05 .......... Welcome
9:05-9:30 .......... River Dynamics and Early Agricultural Settlement in the Lower Grand River Valley - Gary R. Crawford and Joseph R. Desloges
9:55-10:20 .......... The Archaeology of the Bark Site (BbGp-12): Preliminary Results - Susan M. Jamieson
10:20-10:45 .......... Coffee Break
10:45-11:10 .......... Consideration of Environmental Factors in the Zooarchaeological Differences Among Some Proto-Historic and Historic Neutral Sites - Frances L. Stewart
11:35-12:00 .......... Prehistoric Drainage Across the Submerged Niagara Escarpment North of Tobermory - Scarlett Janusas, Steve Blasco, Stan McClellan and Arthur Amos

Saturday Afternoon
12:00-2:00 .......... Lunch
2:00-2:25 .......... Early Post-glacial Ecology of the Lower Great Lakes - Joseph Muller
2:25-2:50 .......... Pondering Palaeosols and Palaeoenvironments at the Peace Bridge Site - Robert I. MacDonald, Richard Protz and Bert J. VandenBygaart
2:50-3:15 .......... The Paleoenvironmental and Geological Contexts of Early Paleo-Indians: Data from the Parkhill Site Investigations - Christopher J. Ellis, Alan V. Morgan and John H. McAndrews

Saturday Evening (Banquet)
6:00-6:30 .......... Bar opens and Oktoberfest members greet arriving guests
6:30-7:00 .......... Ceremonial Keg tapping by the KW Oktoberfest committee
7:00-Whenever .......... Dinner, entertainment by the Beirdo Brothers, and awards

Sunday Morning (Standard Time—Remember to change your clocks and sleep in for an hour!)
9:00-9:05 .......... Welcome back...
9:05-9:30 .......... Orenda: Through the Words of the Wendat - John Steckley
9:30-9:55 .......... American burials from the War of 1812: Preliminary results from the Battle of Stoney Creek, Ontario excavations - Maria Liston, Rita Griffin-Short and Henry Cary
9:55-10:20 .......... Bones of the Ancestors: The Archaeology and Osteobiography of the Moatfield Ossuary - Ronald F. Williamson and Susan Pfeiffer
10:20-10:45 .......... Coffee Break
10:45-11:10 .......... Unmarked Aboriginal Burials and Site Disposition Agreements at the Blue Water Bridge: A Case Study in Co-operation and Building a Partnership - Darren Henry, Jane Graham, Robert Mayer and Paul O’Neal
11:35-12:00 .......... Challenging Contexts: Recent Research on Archaic and Woodland Sites near Port Franks, Ontario - Peter Timmins
12:00 .......... Goodbye until next year...
Abstracts

Unmarked Aboriginal Burials and Site Disposition Agreements at the Blue Water Bridge: A Case Study in Co-operation and Building a Partnership

Darren Henry
(Chippewas of Sarnia First Nation)

Jane Graham
(Blue Water Bridge Authority)

Robert Mayer
(Mayer Heritage Consultants Inc.)

Paul O’Neal
(Mayer Heritage Consultants Inc.)

Abstract: Two unapproved aboriginal peoples’ cemeteries and an irregular burial site have been found during archaeological assessments of construction projects on property belonging to the Blue Water Bridge Authority (BWBA) in the Village of Point Edward, Lambton County, Ontario. Before a decision could be made regarding the disinterment and reburial of the skeletal remains of 15 individuals and associated grave artifacts, the Burial Sites and Repatriation Committee of the Chippewas of Sarnia First Nation conducted a survey to determine what their community wanted to do as a whole.

Only after the community decided to permit the disinterments could negotiations be initiated with the BWBA. These negotiations, conducted over a six-month period, expanded upon the “best practices” policy previously prepared by the First Nations Burial Committee of Toronto, the Toronto Police Service, the Office of the Chief Coroner and various provincial government ministries.

A high level of co-operation between all parties was necessary in order to build and nurture the mutual trust that has grown from the first negotiation meeting until the joint presentation of this paper. The process and procedures that were followed in creating a partnership from the initial discoveries of the burials to the successful implementation of the site disposition agreements serve as a model for others either to adopt or to adapt as circumstances warrant.

Friday Evening Public Lecture

by Dr. Peter L. Storck

Ice Age Beginnings: The Archaeology and Natural History of Ontario’s First People

Dr. Storck is an archaeologist and Senior Curator, Emeritus, at the Royal Ontario Museum where he has worked for nearly thirty years. His primary research interest centres on the peopling of the New World by ancestral Native Americans at the end of the Ice Age; particularly, the Early Paleo-Indian colonization of North America which began sometime prior to 11,500 years ago. Most of his field work on this topic has occurred in Ontario.

During his career, Dr. Storck served two terms as a member of the Board of Directors of the Ontario Heritage Foundation and in 1990 was instrumental in reviving the government publication Annual Archaeological Report, Ontario, last published in 1928. Between 1990 and 1994 he also edited the first five volumes in the new series of this publication. Dr. Storck has published three monographs, over 60 scholarly papers and popular articles and is currently finishing a book for the general public on his research. He is cross-appointed to the graduate faculties at the University of Toronto and Trent University and regularly teaches flintknapping at an annual field school in archaeology for grade 11-13 students at the Boyd Field Centre north of Toronto, a program he helped develop in 1975. He was the senior curator involved in the planning, design and construction of the current “Ontario Archaeology Gallery” located on the lower level in the ROM. Presently, Dr. Storck is serving as an advisor to a cultural resource management firm on the excavation of a newly discovered Early Paleo-Indian site in the Niagara Peninsula.
River Dynamics and Early Agricultural Settlement in the Lower Grand River Valley

Gary R. Crawford
(University of Toronto)
Joseph R. Desloges
(University of Toronto)

Abstract: Palaeoenvironmental research in the Grand River Valley has been elucidating the context of early agriculture in Ontario. Geomorphological research is being combined with the archaeological exploration of sites between Cayuga and York. A series of floodplain and terrace sites provides insights on settlement location choice and land use patterns. Several scales of resolution are utilized and include sites, site groups and watershed. This paper outlines results of research to date on formation processes at each level of analysis. Palaeosols in floodplain settings point to stable settings attracting initial through late Princess Point occupations. No prehistoric occupations post-dating Princess Point have been found on the area's floodplains. Evidence for later prehistoric use of the Grand River watershed in the research area is so far confined to upland terraces. Floodplain dynamics likely influenced this settlement distribution. Historic period use of the floodplains is common and associated with a fundamental change in channel morphology due to changes in flood regime and sediment load.

Going Up Around the Bend... Locational Decisions for Riverine Settlement Systems in Southern Ontario

Frank A. Dieterman
(University of Toronto at Mississauga)

Abstract: Changes in riverine ecology create and restrict human settlement options over time yet people interact with the environment beyond that of a deterministic nature. We may never fully understand the cultural rationale behind site location choice, however, we are able to illustrate how a location was perceived as a process and a product of the surrounding landscape geography by both the site's inhabitants and neighbouring sites. An analysis of viewsheds of Princess Point riverine sites provides support for a centered settlement system hypothesis invoking nested or visually restricted site locations within a pattern of bounded site clustering. Site viewsheds are created and analysed through GIS modeling of site and non-site variables. Similar modeling is conducted for contemporary Rivière au Vase and succeeding Glen Meyer riverine site locales to assess the significance of Princess Point locational patterns, and patterning within or between cultural designations and over the multi-cultural temporal span. Consideration of a location's potential beyond the predetermined environment underlies the choice to "go up around the bend". The locational decision process and resultant product reflects multi-scalar cultural perceptions regarding site characteristics, the landscape of the surrounding locale, and the cultural geography of a region.

The Paleoenvironmental and Geological Contexts of Early Paleo-Indians: Data from the Parkhill Site Investigations

Christopher J. Ellis
(University of Western Ontario)
Alan V. Morgan
(University of Waterloo)
John H. McAndrews
(Royal Ontario Museum)

Abstract: Geological and paleoenvironmental studies were undertaken in conjunction with the archaeological investigations at the Parkhill site between 1973 and 1975. These studies included examination of the sediments in excavated areas, trenching of a small marshy area in the centre of the site, and the extraction of three boreholes along a creek some 1.2 km south of the site. Only the cores yielded sediments of Paleo-Indian age and these provide significant new information which contradict certain views found in the literature. Analyses of the cores: 1) demonstrate that a lake level above modern existed in the southern Huron basin area from ca. 11,000 to at least 10,400 B.P.; 2) suggest the lake reached the level of 184 m long attributed to Main Lake Algonquin in the area; 3) leave no doubt that a large estuary of a lake immediately bordered the Parkhill site on the south; and 4) provide evidence the site was most likely occupied during a time when a spruce parkland existed in the area.
The Archaeology of the Bark Site (BbGp-12): Preliminary Results

Susan M. Jamieson (Trent University)

Abstract: Archaeological efforts in the Middle Trent Valley have been relatively limited and our understanding of the area’s aboriginal history is not well developed. Field work at the Bark site during the summers of 1997 and 1999 revealed late Early Ontario Iroquois, early Late Ontario Iroquois and European-influenced components. Floral and faunal remains from the site indicate that the diversity and richness of the local environment was a major attraction as were local topography and soils.

Prehistoric Drainage Across the Submerged Niagara Escarpment North of Tobermory

Scarlett Janusas (Ontario Marine Heritage Committee)

Steve Blasco (Geological Survey of Canada)

Stan McClellan (Ontario Marine Heritage Committee)

Arthur Amos (Ontario Marine Heritage Committee)

Abstract: Between 10,000 and 5,000 years ago, the post glacial upper Great Lakes drained to the Atlantic through the Ottawa Valley. Post Main Algonquin low level lake stands drained the intermittently subaerially exposed Niagara Escarpment between Tobermory and Manitoulin Island. A partnership between the Ontario Marine Heritage Committee, the Geological Survey of Canada and Parks Canada has led to lakebed surveys over the last six years of the submerged escarpment using sidescan sonar, an echosounder, a manned submersible and SCUBA divers. The survey has identified three prehistoric river channels which drained the upper Great Lakes into Georgian Bay. River flow has been identified south of Manitoulin Island through a deep gorge. River flow then bifurcated north of Cove Island, flowed northward over a large spillway east of Lucas Island, and flowed south and eastward over a similar large spillway south of Middle Island. The latter two spillways with heights similar to present day Niagara Falls flowed as giant rapids discharging waters into the drained Georgian Bay lake basin. Radiocarbon dating of six discovered in-situ submerged tree stumps constrains the period of operation of the waterways from 9360 to 7230 years B.P. Mapping of the location of these prehistoric waterways may yield potential archaeological sites for investigation of the Paleo and Archaic cultural periods.

American burials from the War of 1812: Preliminary results from the Battle of Stoney Creek, Ontario excavations

Maria Liston (University of Waterloo)

Rita Griffin-Short (RGS Archaeological Services)

Henry Cary (Wilfrid Laurier University)

Abstract: In 1998 and 1999 excavations were conducted at the Smith’s Knoll Historic Cemetery as part of a development project by the City of Stoney Creek, Ontario. The site is associated with the War of 1812 battle of Stoney Creek on the night of 6 June 1813. Initial sampling revealed large quantities of disarticulated human remains in the area of a planned wheelchair access ramp in the park. Further excavation in 1999 recovered all of the human remains and artifacts from an irregular pit feature containing secondary deposits of at least 21 adult male skeletons. Documentary sources and local oral history attribute these remains to the American soldiers killed in the battle. Excavation and analysis of the material support this attribution and have yielded evidence about the lives and deaths of the soldiers who fought in this battle, as well as the complex post-depositional history of this site.
Pondering Palaeosols and Palaeoenvironments at the Peace Bridge Site

Robert I. MacDonald
(Archaeological Services Inc.)
Richard Protz
(University of Guelph)
Bert J. VandenBygaart
(University of Guelph)

Abstract: The Peace Bridge site (AfGr-9) is a very large multi-component site, with an estimated area of over 24 hectares, situated in the Town of Fort Erie, Ontario. On-going archaeological investigations by Archaeological Services Inc. beginning in 1994 have documented occupations from the Late Archaic period (circa 3,580 B.P.) through to the present. Salvage excavations undertaken in 1997 included a portion of the site near the original Niagara River waterfront, where the soil stratigraphy suggested the existence of two buried palaeosols. Recognizing the potential importance of these strata for interpreting the palaeoecology of the site, soil scientists from the University of Guelph were invited to undertake pedological investigations. This paper describes the results of these investigations in the context of a palaeoenvironmental reconstruction of the site and its environs.

The Demise of the Huron Ceramic Tradition: Implications for the Organization of Production

Holly Martelle
(University of Toronto)

Abstract: The ceramics from the seventeenth century Huron village at the Thomson-Walker Site show signs of crudity in decoration and manufacture generally unforeseen in collections of similar cultural affiliation. Although there do seem to be close similarities between ceramic traditions at Thomson-Walker and the nearby Auger Site there is a marked contrast in the quality of ceramics produced by the populations at these two sites. Studies of motor habit characteristics suggest that perhaps novices were at work at Thomson-Walker whereas potters at Auger and surrounding sites practiced a more skilled craft. The unusual characteristics of Thomson-Walker pottery are explained in terms of the demise of the Huron ceramic tradition following the death of skilled—perhaps specialist—potters during the period of mass epidemics.

Early Post-glacial Ecology of the Lower Great Lakes

Joseph Muller
(University of Maryland)

Abstract: Research on the early post-glacial environment in the lower Great Lakes has largely been derived from fossil pollen data. Utilizing a GIS spatial analysis package, profiles from 130 pollen sites in the subject area were analyzed. These data were synthesized to test the proposal that specific plant genera transgressed across the landscape over time. The fit for this model was very positive, and these conclusions were interpreted to provide a vegetational context for the Paleo-Indian occupation in the region. The role of floral colonization lag was also examined through comparison with other proxy data (fossil coleoptera and oxygen isotopes). The results infer that the vegetation assemblages inferred from the pollen data do not accurately reflect the actual climatic conditions, which the other data suggest were generally more temperate than the pollen profiles would indicate.
Palaeoecological Research on a Small Scale

Suzanne Needs-Howarth
(Groningen Institute for Archaeology, University of Groningen)

Abstract: This presentation is related to my recently completed PhD research into the fish subsistence strategies of Iroquoian people living between Lake Simcoe and Georgian Bay between AD 1280 and 1530. In keeping with the symposium theme, I will focus on an unexpected spin-off from my investigation into fish age and season of capture.

Age and growth analysis of brown bullhead and walleye remains recovered from the Dunsmore and Carson sites suggest age and size trends that are not solely a function of differing dry screen mesh sizes or a change in fishing-gear selectivity. Fishing activities at both sites likely took place locally, in Willow Creek and Little Lake. It is possible that the reduction in fish size and age at Carson is in part a reflection of changes in the fish community. The presence of very old walleye at both sites suggests that the hypothesized change in the fish community was extremely subtle. It certainly does not indicate overfishing. If the decline in fish age is indeed the result of human predation, and not of taphonomy, sampling error or natural changes in the fish population, this would confirm the relative site chronology.

Ireland and America: The Ancient Connection

Peter G. Ramsden
(McMaster University)

Abstract: Attempts to draw parallels between prehistoric developments in western Europe and Eastern North America have often focussed on the adoption of horticulture, attempting to equate the European Neolithic with the Middle or Late Woodland. This paper suggests that the strongest parallels with the European Neolithic are to be found instead in the Middle Archaic, with which it is roughly contemporaneous. Some environmental reasons are suggested for the similarities between the two.

Consideration of Environmental Factors in the Zooarchaeological Differences Among Some Proto-Historic and Historic Neutral Sites

Frances L. Stewart
(University of New Brunswick)

Abstract: In this paper, proto-historic and historic Neutral use of animal resources is considered. Emphasis is given to the zooarchaeological remains from three village sites located north of Crawford Lake, near Milton, Ontario, and on the Oakville Creek drainage system. These sites are the proto-historic Irving-Johnston (AJGx-27) and Metate (AJha-19) sites and the historic Brown (AJGx-10) site. Metate is situated above the Niagara Escarpment whereas the other two sites are located below it. The variety of animal species exploited by these people from this rich environment is outlined. Some of the differences found in the faunal assemblages can be attributed to environmental factors and, in keeping with the topic of this symposium, these will be emphasized. Other explanations, such as the arrival of the Europeans and the fur trade, will also be considered.

Orenda: Through the Words of the Wendat

John Steckley
(Liberal Arts and Sciences, Humber College)

Abstract: Ever since Tuscarora scholar J.N.B. Hewitt’s groundbreaking article, “Orenda and a definition of religion” (Hewitt 1902) at the turn of the century, and continuing with his Bureau of American Ethnology reports entitled “Iroquoian Cosmology” (Hewitt 1901 and 1928), the Wendat term orenda has played a significant part in the anthropological and comparative religious literature concerning Native religious beliefs. This literature has been primarily based upon Hewitt’s writing, his speculations, with little information supplied by actual use of the term. The exception to this has been provided by Wallace Chafe’s insightful, but too rarely cited analyses of the Seneca cognate in the twentieth century. What is needed, and will be supplied by this paper, is a look at how the term was used in the seventeenth century by the Huron, as this use is reflected in Jesuit dictionaries and the Jesuit Relations.
Challenging Contexts: Recent Research on Archaic and Woodland Sites near Port Franks, Ontario

Peter Timmins
(University of Western Ontario and Mayer Heritage Consultants Inc.)

Abstract: This paper describes the results of studies on a cluster of Archaic and Woodland sites, investigated by Mayer Heritage Consultants Inc., located on and above the Nipissing/Algonquin beach ridges near Port Franks in the southeastern Lake Huron basin. The paleoenvironmental context of the sites is explored, incorporating the geological and vegetational history of the area, including data from the nearby Parkhill site, provided by Dr. Chris Ellis of the University of Western Ontario. Questions are raised concerning the availability of Kettle Point chert during the Nipissing transgression, the nature of Middle Archaic and Early Woodland occupations on these sites, and the challenges faced by archaeologists and cultural resource managers when development occurs in such archaeologically rich areas.

Bones of the Ancestors: The Archaeology and Osteobiography of the Moatfield Ossuary

Ronald F. Williamson
(Archaeological Services Inc.)

Susan Pfeiffer
(University of Toronto)

Abstract: In 1997, Archaeological Services Inc. was asked by the City of North York and Six Nations to disinter and re-inter the skeletal remains from an ossuary located on a branch of the Don River near the intersection of Leslie Street and Highway 401. Located on the periphery of a large early Middle Iroquoian village (ca. A.D. 1330), the pit was found to contain elements of approximately 90 individuals. The ossuary was excavated with extreme care involving detailed mapping and photography and in-field observations made by biological anthropologists. Many insights resulted regarding the cultural practice of ossuary burial. Fascinating glimpses into the demography, health, diet and social organization of the Moatfield people have been afforded through detailed osteobiographical analyses. Of special interest are the data relevant to post-marital residence patterns and the documentation of an inter-generational period during which the dietary role of maize increased rapidly.
To get to the banquet at the Waterloo Inn (approximately three kilometres), take Phillip Street North to Columbia. You can then follow Columbia to King Street North. The entrance to the Waterloo Inn from King Street isn’t especially well marked—it’s via the King St. N. Service Road. Alternatively, you can follow Phillip to Albert, and then Albert to Weber, and enter the Waterloo Inn from the rear.

All papers will be presented in Room 1350 of the William G. Davis Computer Research Centre. The bookroom will be nearby in room 1331. For lunch on Saturday and Sunday, a wide variety of food outlets can be found within a five minute walk from the Davis Centre, as indicated above.