CAA ACA

CONFERENCE PROGRAM

Canadian Archaeological Association canadienne d'archéologie

36th Annual Conference, McMaster University, Hamilton, ON — May 7-10, 2003

CAA 2003
Current and Future Directions in Canadian Archaeology

In This Guide:

Conference Information

Acknowledgements

Room Index

Presentation Rooms .....
..... MUSC 308/309/314/315/319
Workshop Rooms ... MUSC 203/KTH B122
Bookroom ..... MUSC 318
Registration Desk ..... Main Floor Lobby
Snacks ..... Main Floor Atrium

Welcome to the CAA Conference!

The Canadian Archaeological Association's 36th Annual Conference at McMaster University, Hamilton, Ontario welcomes you. The theme of the conference is "Current and Future Directions in Archaeology," and we have received an enthusiastic response to our call for thematic sessions. This promises to be an exciting conference. Thank you for coming.

Information and Assistance

If you need information or assistance, please go to the conference registration desk on the main floor of the McMaster University Student Centre (MUSC). The registration desk is open Wednesday evening from 6-9 pm, all day Thursday/Friday (8:30-4:00), and Saturday morning (8:30-12:00).

Notice Board

If you wish to leave a message for someone at the conference, there is a notice board outside the Book Room (MUSC 318).

Emailing, Photocopying, Printing

These services are available on the Basement Level of the MUSC.

AudioVisual Needs

All presentation rooms have slide projectors, overhead projectors, computer projectors, and 1 screen (some sessions have requested 2 screens). These rooms are open 1 hour before morning and afternoon sessions for presenters to test their equipment. Please note: if you are using PowerPoint, you should contact your session chair to load your presentation onto a single computer. There is an A/V volunteer in each presentation room to change slide trays and offer help. For special A/V needs, please contact Andrew Martindale through the registration desk.

CAA 2003 Conference Social Events

Please plan on attending the social events organized for the conference. They are listed in detail on Page 3.

Bookstore Discount

Present your conference name tag at McMaster's Titles Bookstore (Gilmour Hall, next to MUSC) and receive 15% off general books, sportswear, giftware and stationery.

Information for Presenters and Session Chairs

Presented papers: It is strongly recommended that papers be between 15 and 18 minutes long. Each presenter has no more than 20 minutes. If you wish to entertain questions, you must accommodate this within the 20 minutes. Please allow up to 2 minutes for set up time. Organizers will cut off speakers who abuse these parameters.

Session Chairs: In order to keep the conference running on time, you MUST cut short presenters who are going over time. Each room is provided with an egg-timer which will ring when time is up. Speakers must stop at this point. We expect chairs and presenters to adhere to this policy out of respect for all other conference participants. Sessions are divided into 20 minute blocks for paper presentations. This time block includes preparation time, set-up time, and questions. If you choose to entertain questions after each presentation, please ensure that the papers are 15 minutes long. It is recommended that presentations be no more than 18 minutes long.

Audiovisuals: Presenters may supplement their papers with slides, acetate overhead, and PowerPoint presentations. It is recommended that only one of these formats be used for each paper. Pleased contact Andrew Martindale through the registration desk for any special A/V needs.

A special note regarding PowerPoint:
If you plan to use a PowerPoint presentation you must:

a) Use PowerPoint for PCs or convert your presentation to PowerPoint for PCs, and
b) Bring your presentation on a CD and be prepared to submit it to your session organizer at least one hour before your session begins. Other formats such as zip disks will not be accepted. Do not expect to use your own laptop. All presentations will be loaded on one laptop that will be provided for each session. Information on who to contact for your session is available at the registration desk.

Presentation rooms are available 1 hour before sessions to test audio-visual equipment. If you need to locate the person/computer for your session, please contact Andrew Martindale through the registration desk.

Posters: Presenters will be provided with space no more than 4' high and 8' wide. It is recommended that posters be printed as single sheets. If you choose to assemble your poster at the conference, you must provide your own supplies.

Session Organizers: Session organizers are expected to act as chairs for their sessions or to appoint a suitable representative to act as chair.

Plenary Session

Archaeological graduate students from institutions across Canada will present in the Conference Plenary session on Friday afternoon in room MUSC 319. The session, titled *Current and Future Directions: Student Perspectives on Canadian Archaeology,* asks students to discuss the focus of research interests and activities which best characterize their graduate programs. The session will showcase the interests and activities of students, who represent the future of Canadian archaeology. Most students have organized a single, multi-authored paper, but in some cases, there will be multiple papers from the same department. A list of abstracts for the plenary is available in the abstracts section of this guide. The Plenary will begin with opening remarks by CAA Vice-President Farid Rahemtulla. It will be followed by a question/answer session hosted by Peter Bangarth.

Registration

Registration fees are $85 for regular members and $55 for students. Day passes are available for $35. All presenters must be registered in advance of the conference. Registration packages can be picked up at the registration desk in the main lobby of the MUSC.

Travel

Travel discounts are available through WestJet. Discount rates are also available on shuttle service from Pearson (Toronto) and Hamilton airports to McMaster University. See the website for details and contact information. The CAA also subsidizes travel expenses of student presenters. Please pick up the travel subsidy form from the CAA desk in the Bookroom (MUSC 318).

Accommodation

Residence rooms are available at McMaster University for $44.35 (double) and $51.52 (single). Rate includes taxes, parking, and hot breakfast buffet. Contact McMaster Housing and Conference Services at (905) 525-9140 ext.27222. Rooms have also been reserved at nearby hotels including:

Visitors Inn:
649 Main Street West
Hamilton, Ontario
Phone\Fax (905) 529-6979; 1-800-387-4620
email - reservations@visitorsinn.com
website - www.visitorsinn.com
Single - $87.00; Double - $93.00

Ramada Plaza Hotel
150 King St. E, Hamilton, Ontario, L8N 1B2
Tel: (905) 528-3451; Fax (905) 528-8638
Email - info@ramadahamilton.com
Complimentary Shuttle service available from Hamilton Airport to hotel and to McMaster University.
Rates - $89.00 per night , Single or Double + taxes

Admiral Inn
149 Dundurn N
905-529-2311
rates = $89.95 pp or $99.95 dbl

Econo Lodge
175 Main St. West (Between Hess & Bay streets)
905-528-0611
1-800-553-2666
rates from $73-$100

Volunteering

Students who volunteer a few hours of help at the conference will receive free registration. Students from everywhere are welcome! We have some duties that need to be performed in advance of the conference, but we also need help during the conference itself.

Some of the volunteer positions that need to be staffed during the conference are: room monitors, reception hosts, AV assistants, campus 'guides'. For more information, please contact Meghan Burchell at the registration desk.

City of Hamilton, Ont.

Hamilton is a diverse city on the shore of Lake Ontario. Area attractions include Cootes Paradise, the Bruce Trail, the Niagara Escarpment, the Waterfront Trail, and the Royal Botanical Gardens. Information about Hamilton area attractions and facilities can be found on the inserts and brochures included in the registration package.

McMaster University

McMaster University is located in Hamilton, Ontario. The University is a 72-year-old campus with a vibrant research and teaching culture, new conference facilities, and abundant green space, all minutes from downtown Hamilton. The weather is usually mild and pleasant in May. The campus is restricted to pedestrian traffic, although there is parking outside the conference centre and residences.

Bookroom Participants

Check out the Bookroom (MUSC 318) for products and services from the following agencies and companies:

- Atlantic Archaeology Ltd (publications).
- AltaMira Press (publications).
- Canadian Archaeological Association (memberships/publications/journal).
- Canadian Museum of Civilization (publications).
- City of Hamilton (guides/publications/tourism).
- Copetown Press Inc. (publications).
- Elfshot (publications).
- Hamilton Architectural Conservation Advisory Committee.
- Huronia Museum (publications/membership).
- International Journal of Osteoarchaeology (journal).
- McGill-Queen's University Press (publications).
- Newfoundland Archaeological Heritage Outreach Program (videos/publications).
- Nexus: The Canadian Student Journal of Anthropology (journal).
- Ontario Archaeological Society/Hamilton Chapter (memberships/publications).
- Ontario Heritage Foundation (publications/silent auction)
- Parks Canada in Port au Choix (gifts).
- Scholarly Book Services Inc. (publications).
- Titles Bookstore, McMaster (publications).
- University of British Columbia Press (publications).
- Welwyn Wilton Katz (author/publications).

THURSDAY, MAY 8, 2003 - SCHEDULE OF PRESENTATIONS

		1	2	3	4	5
Room		308	309	314	315	319
		Investigating Resource Use	**Anthropological Archaeology of Mortuary Ritual**	**Archaeology and Ecology: Managing Both Priorities**	**160° of Arctic Archaeology**	**Regional Approaches in Archaeology**
1	9:00-9:20	Kaltenrieder/Hammond	Roksandic	Keeshig-Tobias	Smith	Cannon
2	9:20-9:40	Cluney	Snow/Sanders	Blasco et al	Esdale/Rusic	Rankin
3	9:40-10:00	Black et al	Weitsel et al	Smith	Gal/Klinger	Ramsden
COFFEE BREAK						
4	10:30-10:50	Panas	Robertson et al	*Discussion*	Friesen	Parslow
5	10:50-11:10	Burke	Weber et al	Roy	Milne/Donnelly	Banning
6	11:10-11:30	Yang et al	Drouin et al	Preston	Gendron et al	Yellowhorn
7	11:30-11:50	Foreman	McKenzie et al	Rivet/*Discussion*	Wolff	
LUNCH						
				Archaeology of Health		**Spatial Analysis**
8	13:30-13:50		Lohman	Barta	Desrosier/Rahmani	Prince
9	13:50-14:10		Garvin	Bathurst	Lofthouse	Cameron/Petney
10	14:10-14:30		Pfeiffer	Larcombe	Betts/Friesen	Blair
11	14:30-14:50		Rainey	Agarwal/Weber	Lemoine	Allen
COFFEE BREAK						
		Who's on First? Studies of Early Human Occupation in Canada:				
12	15:20-15:40	Deller et al	Kilmurray	von Hunnius	Sorensen	Anderson/Burke
13	15:40-16:00	Julig/Jean	Bazaliiskii/Weber	White et al	Cameron	Patton
14	16:00-16:20	McMillan	Goriunova/Weber	Herring (Discussant)		Reimer/Yumks
15	16:20-16:40	Amundson/Meyer	Mooder et al			Horvath
16	16:40-17:00	Fladmark				

Open Workshops:

- **ICAHM Workshop: MUSC 203, 1:30 - 3:20 pm.**
- **Rethinking Artifact Curation: KTH B122, 1:30 - 3:00 pm.**

Evening: Reception and (Free) Dinner at Dundurn Castle. Free castle tours available. Cash bar. Buses leave from MUSC @ 5:45 and 6:15, and return at 8:30 and 9 pm.

FRIDAY, MAY 9, 2003 - SCHEDULE OF PRESENTATIONS

	Room	1 308	2 309	3 314	4 315	5 319
		The Application of Archaeological Data to Modern Environmental Problems	**Archaeological Research at National Historic Sites of Canada**	**Archaeology in Forensic Anthropology**	**Method and Theory I**	**Gender/Agency in Hunter-Gatherer Archaeology**
1	9:00-9:20	Smith	Santesso	Rogers	Shaw	Bonesteel
2	9:20-9:40	Hirons et al	Francis/Porter	Crowder	Finlayson/Fischer	Milne
3	9:40-10:00	Gerlach et al	Renouf	Olson	Ebert	Whitridge
COFFEE BREAK						
4	10:30-10:50	Alix	Nesbitt	Henkel	Bond	Burchell
5	10:50-11:10	Gerlach/Turner	Doroszenko		Allum	Togawa
6	11:10-11:30		Boland		Gibson et al	Lyons/Prentiss
7	11:30-11:50				Budhwa	

LUNCH

Room 319:
Graduate Student Plenary. Current and Future Directions: Student Perspectives on Canadian Archaeology

8	13:30-13:40	Farid Rahemtulla: Opening Remarks.
9	13:40-14:00	Current and Future Directions in Archaeology at McMaster University.
10	14:00-14:20	A Summary of Geoarchaeological Education and Research at the University of New Brunswick.
11	14:20-14:40	Multidisciplinarity and Interdisciplinarity in Canadian Archaeology: The View from Graduate Studies in Geoarchaeology.
12	14:40-15:00	Physical Anthropology: The incorporation of new techniques and the refinement of methods.

COFFEE BREAK

13	15:30-15:50	Are Canadian Archaeologists Being Poorly Trained? Characterizing McGill Archaeology.
14	15:50-16:10	Bio-archaeology at the University of Western Ontario.
15	16:10-16:30	Taking Stock: The Diversity of Archaeology at the University of Toronto.
16	16:30-16:50	One World, So Many Views.
	16:50-17:30	Discussion: Peter Bangarth, Moderator.

Poster Session: Nicholson; Beauschesne et al; Prince; Jurakic/Martindale.

Open Workshop:
Heritage Legislation Committee Workshop: MUSC 203 10:00 am - 12:00 pm.

Committee Meeting:
CAA Heritage Legislation Committee: MUSC 203 6 - 9 pm.

SATURDAY, MAY 10, 2003 - SCHEDULE OF PRESENTATIONS

Room		1 308	2 309	3 315	4 319
		Archaeology at Port aux Choix	**Method and Theory II**	**Changes and Challenges in the Prairie Ecozone: SCAPE 2002**	**Historical Archaeology of Indigneous Peoples**
0	8:40-9:00			Nicholson et al	
1	9:00-9:20	Renouf	Coupland	Graham	Monks
2	9:20-9:40	Bell et al	Curtis	Roskowski et al	Oetelaar
3	9:40-10:00	Reid	Rahemtulla	Boyd et al	Martindale
COFFEE BREAK					
4	10:30-10:50	Ryan	Yang et al	Oetelaar	Brownlee et al
5	10:50-11:10	Wells	Karcich	Meyer	Orchard
6	11:10-11:30	Erwin	Commisso	Hamilton/Nicholson	Budhwa
7	11:30-11:50	Murray	Malainey	Beaudoin/Panas	Fox
LUNCH		**Free barbeque lunch on the 3rd floor terrace.**			
8	13:30-13:45	Teal			Marshall
9	13:50-14:10	Deal			Warrick
10	14:10-14:30	Renouf			Ferris
11	14:30-14:50				Jamieson (Discussant)
COFFEE BREAK					

16:00- 1800 **CAA Annual General Meeting in CNH B104**

Evening:
CAA Conference Banquet: 7:00 pm - 9:00 pm, 3rd floor of the Student Centre

Session: Investigating Resource Use
Thursday, May 8, 2003, MUSC 308.
9:00 am – 11:50 am
Session Chair: Christine Cluney (McMaster)
Papers: 7

Time: 9:00 – 9:20
Title: Cambium-Stripped Lodgepole Pine CMT Research in Interior British Columbia: A Critical Evaluation.
Author: Simon P. Kaltenrieder and Joanne E. Hammond (Matrix Research Ltd.)
Abstract: In the British Columbia interior, the most commonly recorded kind of Culturally Modified Tree (CMT) is the bark-stripped lodgepole pine (*Pinus contorta var. latifolia Douglas ex Loud.*). These CMTs represent traditional aboriginal lodgepole pine cambium harvesting. Virtually ignored by archaeologists until the 1980s, bark-stripped lodgepole pine CMTs have since been recorded in the thousands, primarily in the course of forestry industry related CRM assessments. We critically review the study of these CMTs in British Columbia. We explore CMT survey and recording methods and their underlying principles and assumptions. We evaluate the attempts which have been made to utilize the CMT data collected thus far, and propose alternatives to current approaches.

Time: 9:40 – 9:50
Title: Variability in the Use of Marine Fauna at an Early Ceramic site, Antigua, West Indies.
Author: Christine Cluney (McMaster)
Abstract: Excavations at Doig's, an early Saladoid (Ceramic Age) coastal site in Antigua, West Indies yielded a large number of fish remains. Analysis of these remains show the extent of variability in the average size of fish over time and space. This information is used to assess the contribution of marine resources to the diet, the types of fishing technology involved in capture, and whether or not Saladoid populations had a deleterious effect on fish populations.

Time: 9:40 – 10:00
Title: Geological Sources and Archaeological Distributions of Translucent Chert in New Brunswick.
Authors: David W. Black (UNB), Susan E. Blair (UNB) and Brent D. Suttie (UNB)
Abstract: The best known source of translucent variegated chert in New Brunswick is the Washademoak Lake Chert Source in Queens County. However, several other sources of chert having similar appearances are known or suspected. Here we discuss current understandings of these geological sources. We also present preliminary analyses of spatial and temporal distributions of translucent variegated chert in the New Brunswick archaeological record.

Time: 10:30 – 10:50
Title: The Bodo Bison Skulls Site (FaOm-1): Current Research in the Neutral Hills of Alberta.
Author: Timothy Panas (Alberta)
Abstract: First discovered in 1995, the Bodo Bison Skulls site (FaOm-1) represents what could be one of the largest Late Prehistoric bison kills in western Canada. Although significant in terms of research potential, this site is situated in the Neutral Hills, an area that has not been investigated thoroughly in either Alberta or Saskatchewan. This paper will examine prehistory and history of the area through numerous background sources, as well as provide an overview of the author's research goals for developing a model of the site's usage within the larger scale of the Northern Plains.

Time: 10:50 – 11:10
Title: The Use of Palaeoethology as a Means of Understanding Predator-prey Relationships and Hominid Hunting: A Crimean Case-study.
Author: Ariane Burke (Manitoba)
Abstract: *Equus hydruntinus*, an extinct species of equid, is a particularly common species of prey during the Middle Paleolithic, particularly in the Crimean Peninsula. Despite the frequency with which it is encountered, its systematic

affiliation has long been a subject of controversy. Recent morphometric and genetic research shows that it is a close relative of the Asiatic ass. This information is used here to propose a model for the social organization and behaviour of *E. hydruntinus*. The possibility of using this information to reconstruct the decisions taken by Middle Paleolithic hunters in Crimea is explored here.

Time: 11:10 – 11:30
Title: Species Identification of Pacific Salmon from Archaeological Bones through DNA Analysis.
Authors: Dongya Y. Yang (SFU), Aubrey Cannon (McMaster) and Shelley R. Saunders (McMaster)
Abstract: A DNA test was developed in this study to identify species from archaeological salmon bones. Short fragments (less than 200bp) of mitochondrial DNA from the control region (D-loop) and cytochrome B were targeted for amplification using the Polymerase Chain Reaction (PCR) technique. The method was tested on more than 20 salmon bone samples (dated 6000 to 2000 BP) from the site of Namu on the central coast of British Columbia. Four species: Coho, Sockeye, Pink and Chum salmon were identified from the samples. The results indicate that systematic contaminations could be excluded from the test since multiple species were identified from the same set of extraction and similar sequences were observed from different bone samples of the same species.

Time: 11:30 – 12:00
Title: The Truth about Deer, Turtles, and Dogs: An Examination of Ancient Maya Human-Faunal Interactions.
Author: Lindsay Foreman (Western)
Abstract: The lifestyle and culture of the ancient Maya of Mesoamerica have been studied for over five centuries. However, until the 1970s relatively little attention was devoted to the systematic collection and analysis of faunal remains recovered during the archaeological excavations of Maya sites. This paper focuses on the interactions between the ancient Maya and three animal types: deer, turtle, and dog. Maya codices, ritual books, ceramics and artwork, ethnohistoric accounts and evidence from the archaeological record illustrate the symbolic, ritual, and ceremonial significance of these animals in the Maya world and provide information on the ancient methods of procurement and processing and the role of deer, turtles, and dogs in the subsistence economy of the ancient Maya. Minimum number of individual (MNI) and number of individual specimen (NISP) data were collected for these three animal types from six inland and four coastal lowland sites from the Preclassic to the Postclassic periods. Chi-square contingency analyses of these data illustrate an association between the spatial and temporal distribution of deer, turtle, and dog in the Maya realm. Further analyses using one-dimensional chi-square tests provide evidence of changing frequencies of deer, turtles, and dogs within inland and coastal regions and during the three temporal periods at the $\alpha=0.05$ significance level.

Session: Anthropological Archaeology of Mortuary Ritual
Thursday, May 8, 2003, MUSC 309.
9:00 am – 4:20 pm
Organizers: Mirjana Roksandic, Roger Ivar Lohman (Toronto)
Papers: (15)

Session Abstract: Mortuary behaviour provides insight into the ritual and ideology of prehistoric societies and produces an essential record of non-utilitarian behaviour for groups with no written or oral traditions preserved. Skeletal disposition and taphonomy carry relevant information on several aspects of mortuary practices, including periburial activities, disposal, and rituals directed at ancestors. Traditionally, the archaeological study of burial has relied on the

expertise of biological anthropologists and archaeologists, while the interpretation of mortuary sites to discern the deceased's social persona and the group's ideology has relied on grave goods and burial architecture, with little reliance on the position of the skeletal material within the burial, and the rich data available from cultural anthropology about alternative methods of disposal of the dead. The situation is changing and the relevance of skeletal disposition for understanding mortuary behaviours is being recognized. We would like to see increased systematization of these insights from dispositional taphonomy and cultural anthropology, to allow meaningful cross-cultural comparisons among mortuary sites. We invite both methodological papers and case studies on material and ideological aspects of mortuary practices by researchers from all subfields of anthropology.

Time: 9:00 – 9:20
Title: Emphasis on Culture in Taphonomic Studies of Human Remains.
Author: Mirjana Roksandic (Toronto)
Abstract: Understanding behaviour of past human groups is the goal of archaeology regardless of the theoretical perspective it takes. Burials are the closest we can get to ritual activity of past human societies as they are, with the exception of natural catastrophe or accidents, inseparable from ritual activity. It has long be recognized in archaeological literature that the position and orientation of the deceased are important factors in understanding burial practices and inferring ideology behind them, therefore these basic attributes figure in most archaeological reports. The simplistic equation of the position of a skeleton with the original position of the body has been questioned by growing understanding of taphonomic processes. In that context, an important parameter i.e. 'disposition' or 'relative position of the skeleton and individual bones within a burial' is unreasonably neglected in most of the taphonomic studies. Systematic recording and interpretation of information disposition provides can enable better understanding of disposal of the dead as well as later manipulations in the context of ancestral ritual. Some examples are examined.

Time: 9:20 – 9:40
Title: The Skeleton in Reports on Mortuary Archaeology: A Statistical Review
Author: Serena Snow (Toronto) and Barbara Sanders (Toronto)
Abstract: This paper is a statistical analysis of a number of random articles written on the subject of 'mortuary practices'. It explores the occurrence of the skeleton and related documentation on mortuary archaeology from journals published around the world. The statistical analysis discussed here involves the detail in which skeletal material, cultural affiliation, archaeological analysis and forensic data is discussed in articles focused on burials and mortuary practices. The central purpose of this paper is to provide a review of articles written with emphasis on human skeletal remains, compared to those written with focus on other sub disciplines in mortuary archaeology.

Time: 9:40 – 10:00
Title: An Examination of Grave Disturbance as a Taphonomic Process.
Authors: Misty Weitzel (Alberta), Andrzej Weber (Alberta), Olga Ivanovna Goriunova (Irkutsk)
Abstract: Grave disturbance initiated by humans (often a presumption when referred to as looting or robbing) is a well-known occurrence in the archaeological record. However, it has not been examined specifically for what it is: a taphonomic process often having a direct impact on skeletal condition. Khuzhir-Nuge XIV, a Late Neolithic/Early Bronze Age cemetery in Siberia, provides a unique opportunity to assess the taphonomic impact of many cultural processes including grave disturbance. At least 19 of the 79 burials at Khuzhir-Nuge XIV show evidence of grave disturbance seen through patterns in grave architecture and the absence of certain skeletal elements while other elements remain in articulation. Previous research (Lieverse 1999, 2000) revealed that skeletal completeness was significantly lower among disturbed graves than undisturbed graves. Examination of Khuzhir-Nuge XIV skeletal data in more detail have helped to determine the overall range of variability among disturbed graves and any meaningful patterns of cultural activity, which is the goal of a separate Master's thesis within the Baikal Archaeology Project. Additionally, experiments performed at a replicative cemetery site in Edmonton, Alberta have contributed to knowledge surrounding the effects of grave disturbance.

Thursday: Mortuary Ritual

Time: 10:30 – 10:50

Title: Disturbance Patterns at Mortuary Sites of Neolithic Hunter-Gatherers of the Lake Baikal Region, Siberia.

Authors: Cameron Robertson (Alberta), Andrzej Weber (Alberta), Olga Ivanovna Goriunova (Irkutsk)

Abstract: A significant feature of mortuary behavior found at the Glazkovo cemeteries Kurma XI and Khuzhir-Nuge XIV, in Siberia, is extensive post-interment disturbance of the graves. It appears that prehistoric people routinely reopened the graves after burial and removed human remains and/or artifacts. Grave disturbance, often referred to as grave robbing, seems to be looked upon as a barrier to archaeological interpretation rather than as a genuine cultural process. Despite the frequency of grave disturbance in mortuary sites all over the world there is a striking lack of research and literature dedicated to the subject. This paper will emphasize that grave disturbance is an important cultural activity and will focus on documenting the range of variability in disturbance patterns within the archaeological record.

Time: 10:50 – 11:10

Title: Temporal Patterns of Cemetery Use among Middle Holocene Hunter-gatherers of the Baikal Region, Siberia.

Authors: Andrzej Weber (Alberta), V.I. Bazaliiskii (Irkutsk), O.I. Goriunova (Irkutsk)

Abstract: Three large Middle Holocene hunter-gatherer cemeteries from the Lake Baikal region in Siberia have been extensively dated by radiocarbon: Lokomotiv (75 dates) representing the Early Neolithic Kitoi culture and Ust'-Ida (70) and Khuzhir-Nuge XIV (75), both associated with the Late Neolithic to Bronze Age Serovo-Glazkovo culture. This material indicates that many of the larger Serovo-Glazkovo cemeteries in the Cis-Baikal were used on rare occasions, but over a very long time, up to c. 2000 calibrated years, and with the most frequent use in the middle of that period. Consequently, many of these cemeteries were used concurrently. The spatial growth of these large cemeteries was quite complex. At Khuzhir Nuge rows of graves were established at different locations at about the same time and graves were added to them at variable frequencies, but many other graves were built outside of the rows. Similar spatial patterns have been observed elsewhere in the Cis-Baikal, for example at Ust'-Ida. The dates obtained for the Kitoi cemetery at Lokomotiv are quite different from Khuzhir-Nuge and Ust'-Ida. Lokomotiv was used very often, but over much shorter period. This suggests further significant differences between Kitoi and Serovo-Glazkovo groups.

Time: 11:10 – 11:30

Title: The Significance of Architecture Variability in Grave Construction from a Middle Holocene Siberian Hunter-Gatherer Cemetery Site.

Authors: Bradley Drouin (Alberta), Andrzej Weber (Alberta), Olga Ivanovna Goriunova (Irkutsk)

Abstract: Khuzhir-Nuge XIV, a Middle Holocene Hunter-Gatherer cemetery is nestled in a small cove on the western shore of Lake Baikal, Siberia. It is one of the largest hunter-gatherer cemeteries in all of Siberia spanning about 1800 years of use and composed of 79 graves constructed from numerous stone slabs arranged into cairns covering grave pits. The graves are orientated in an east-west direction grouped into discernable rows and clusters. The differences in grave construction both in terms of stone arrangements and the number of stones used is thought to be related to age, sex, possible kin relations, status, and temporal and spatial variables. It is the purpose of this paper to address these issue and attempt to find meaningful patterns in grave architecture.

Time: 11:30 – 12:00

Title: Micro-temporal processes at an Early Bronze Age Cemetery in the Lake Baikal Region, Siberia.

Authors: Hugh McKenzie (Alberta), Andrzej Weber(Alberta), Olga Ivanovna Goriunova (Irkutsk)

Abstract: The Early Bronze Age cemetery Khuzhir-Nuge XIV, located on the northern coast of Lake Baikal, Russia, was used continuously for over 2000 years. Of the 90 individuals (from 79 graves), 75 have been radiocarbon dated providing a uniquely detailed record of site use through time. This presentation will explore the history of Khuzhir-

the middens and houses. Scattered human bone at other Iroquoian village sites has traditionally been attributed to the torture and cannibalism of war captives, as described in the Jesuit Relations. Ethnohistoric and archaeological evidence describe several different Huron mortuary practices such as burial in a cemetery and reinterment in an ossuary during the Feast of the Dead. The following is an evaluation of the bone modification and spatial context of the scattered and fragmentary human remains in relation to Huron mortuary practices as well as the practice of torture and cannibalism of war captives. The results indicate that the cultural processes responsible for the formation of this assemblage at the Keffer site are more complex than originally thought.

Time: 15:20 – 15:40
Title: Social Memory and Mortuary Ritual
Author: Liam Kilmurray (Sheffield)
Abstract: Mortuary rituals were aimed at both the living and the dead. One of their primary functions was the cohesion of group solidarity and identity. They achieved this cohesion through the solidification of social memory. Though often overlooked, social memory is an integral component of social identity. Examples from both Europe and Canada will demonstrate that mortuary rituals were an integral part of the processes of making, storing, and transmitting this social memory. The passage graves of Neolithic Ireland, for example, will be shown to incorporate mnemonic characteristics which reveal their builders' concern with perpetuating social memory. It was in the Neolithic that a new temporal complexity emerged. In Neolithic Ireland, 'thinking' ancestors required a new temporal order that mortuary ritual helped to develop. To this end, mortuary rituals at Neolithic monuments employed art, light, material deposits and human burials. These were part of the process of engineering a memorable event that would contribute significantly to the solidification of social memory and the social identity that underlies it. Analysis of the interference with the mortuary ritual of the Huron by the Jesuits in the seventeenth century highlights the role of mortuary ritual in the construction and maintenance of social memory.

Time: 15:40 – 16:00
Title: Shamanka II: A New Neolithic Cemetery on Lake Baikal.
Authors: Vladimir Bazaliiskii (Irkutsk), Andrzej Weber (Alberta)
Abstract: In the summer of 2002 the Baikal Archaeology Project concentrated its fieldwork on two new Middle Holocene cemeteries on the shores of Lake Baikal. One of them was Shamanka II located at the southwest tip of the lake in the town of Kultuk. Of the 24 graves excavated to date 19 represent the Early Neolithic Kitoi culture (c. 7000 – 6000 BP), four the Glazkovo culture of the Late Neolithic to Bronze Age (c. 5300 – 3300 BP), and one grave remains unidentified. The Kitoi graves, which contained 39 individuals, are quite similar architecturally and with regard to the artifactual inclusions and mortuary ritual to the Kitoi graves of the Angara valley. The assortment of grave goods typically includes shanks of composite fishhooks, antler bow plates, and zoomorphic figurines. The Shamanka II cemetery is important because it will redress the existing imbalance in the distribution of the known Kitoi graves which has been very strongly biased towards the Angara valley. Fieldwork will continue in 2003.

Time: 16:00 – 16:20
Title: Kurma XI: A New Bronze Age Cemetery on Lake Baikal.
Authors: Olga I. Goriunova (Irkutsk) and Andrzej Weber (Alberta)
Abstract: In the summer of 2002 the Baikal Archaeology project concentrated its fieldwork on two new Middle Holocene cemeteries on the shores of Lake Baikal. One of them was Kurma XI located in the Little Sea area representing the Glazkovo culture of the Late Neolithic to Bronze Age (c. 5300 – 3300 BP). The fifteen graves excavated produced archaeological material that is unique in the context of the entire Cis-Baikal Late Neolithic and Bronze Age mortuary data. This uniqueness regards in particular a number of grave inclusions. Such objects as the copper/bronze medallion, fishhooks with copper/bronze barbs, silver ring, large nephrite rings, and fishhook shanks with anthropomorphic facial images are all first time ever discoveries. Fieldwork will continue in 2003.

Time: 16:20 – 16:40

Title: Extracting Kinship and Social Relationships from Genetic Data: A Study of Prehistoric Lake Baikal Populations.

Authors: Karen P. Mooder (Alberta), Theodore G. Schurr (Pennsylvania) and Fiona J. Bamforth (Alberta)

Abstract: DNA analysis has emerged as a common tool in anthropology over the last decade as the sensitivity of molecular techniques has improved. Most genetic studies of archaeological populations have been limited in scope to the estimation of biological affinities between populations in the absence of archaeological context. In contrast, this study is attempting to correlate archaeological and molecular data to explore whether genetic data can be used to extract information about the population and social structure of mortuary populations. Mitochondrial DNA (mtDNA) data has been collected from 77 individuals from two Neolithic Cis-Baikal cemeteries known as Lokomotiv and Ust'-Ida. Single and multiple burials were used at both cemeteries and radiocarbon dates suggest that the two burial types were used contemporaneously. We observe significant differences in mtDNA haplogroup frequencies as a function of burial type, suggesting that kinship may have impacted the type of mortuary treatment proffered in these Neolithic populations. It may also be possible to delineate marriage practices in these cemetery populations by correlating genetic data and sex data. It is our intent to test mtDNA haplogroup frequencies generated from this study against the conventional hypothesis of patrilocal residence by hunter-gatherer groups.

Session: Archaeology and Ecology: Managing both Priorities
Thursday, May 8, 2003, MUSC 314.
9:00 am – 12:00 pm
Organizer: Christophe Rivet (ICAHM)
Papers: 6 (+2 discussion sessions)

Session Abstract:
Linking archaeology and the environment in archaeological heritage management. The UNESCO World Heritage Convention considers "that the deterioration or disappearance of any item of the cultural or natural heritage constitutes a harmful impoverishment of the heritage of all the nations of the world" and as such recognises that there is a harmonious relationship between both. Archaeology, probably more than any other heritage discipline, explores this relationship through such studies as settlement patterns, agricultural techniques, or land occupation. Hence, when translated into archaeological heritage management, understanding this relationship becomes highly instructive in understanding the nature of what is identified as heritage, in identifying its values, in defining the historical as well as environmental context of the resource, and finally in determining the pressures at work in conservation. How does the environment influence human settlement and human history? How do these locations and events affect present preservation and interpretation of archaeological resources? When natural events exert pressure on the archaeological resource, how do we mitigate the effects without compromising the integrity of the environment? The first part of this session will explore the relationship between human communities and nature. The second will look at cultural heritage and nature's impact on it.

La Convention du patrimoine mondial de l'UNESCO considère "que la dégradation ou la disparition d'un bien du patrimoine culturel et naturel constitue un appauvrissement néfaste du patrimoine de tous les peuples du monde". Celle-ci admet une relation harmonieuse entre l'un et l'autre type de patrimoine. L'archéologie, probablement plus que toute autre discipline en patrimoine, explore cette relation par le biais, entre autres, d'études sur les types d'établissements, les techniques d'agricultures, ou l'occupation et l'exploitation du territoire. Dépendants de la terre qui subvient à leurs besoins, les humains se sont adaptés à leur environnement. Cette symbiose se matérialise par des marques culturelles laissées par les communautés, des traces à la fois tangibles et intangibles de leur présence. Chaque aspect du paysage qui

les entoure comporte un nom et un sens qui reflète leurs valeurs et leurs besoins. Cette relation se perpétue jusqu'à ce que le site soit abandonné. Le paysage, cependant, continue d'évoquer la mémoire de cette relation passée tout en se transformant. Un équilibre nature/culture est maintenu par la mémoire associée au site par la tradition orale, le savoir traditionnel ou encore l'interprétation du site. Ce même environnement peut représenter un défi de conservation important. Lorsque mise en application en gestion du patrimoine archéologique, la compréhension de cette relation devient particulièrement utile afin de comprendre la nature de ce qui est identifié comme patrimoine, d'identifier ses valeurs, de définir le contexte historique et environnemental de la ressource, et finalement afin de déterminer les formes de stress qui affectent sa conservation. De quelle manière l'environnement affecte-t'il l'établissement des groupes et leur histoire ? De quelle manière ces endroits et ces événements affectent-ils la conservation et l'interprétation des ressources archéologiques ? Lorsque les forces naturelles exercent une pression sur la ressource archéologique, de quelle manière pouvons-nous en réduire les impacts sans créer d'effets néfastes sur l'environnement ?

Time: 9:00 – 9:20
Title: The Oral History of Fathom Five
Author: Lenore Keeshig-Tobias (George Brown)
Abstract: In the oral tradition of the Anishnabek, there was a time when the when the waters of the Great Lakes began to rise and flow in the opposite direction. This was the result of an enormous dam built by a giant beaver. Nokomis (grandmother) caught the beaver. In order to escape the old woman's grasp, the giant beaver had to dig through his dam and the water carried him away. The lake returned to its normal level. Anishnabe storytellers say that the above-mentioned story took place at a time when Lake Huron poured into Georgian Bay. In addition to the story of the giant beaver, elders from the Chippewas of Nawash First Nation tell stories of people walking to Manitoulin Island, of fishermen hearing voices under the water, of whirlpools, and about battles between an eagle and a sea serpent. Fathom Five's lakebed mapping project has revealed a number of underwater features that give evidence that thousands of years ago, deep channels were carved into the escarpment within a relatively short span of geological time and that the water in Lake Huron did indeed flow into Georgian Bay. The discovery of ancient waterfalls and riverbeds means that most of Fathom Five was once dry land at a time when Georgian Bay flowed out toward the St. Lawrence, through the French River area. Getzijiig (elders or old-timers) is a group of Nawash elders who are concerned about the preservation of their language, the loss of certain words, concepts and ideas, and meet weekly. In this manner, Getzijiig is handing on their knowledge to younger generations. Anishnabe (Ojibway) elders have long claimed that their language and their stories come from the land. Thus the oral history of Fathom Five begins with Getzijiig, with ancient Anishnabe stories, Anishnabemowin (the language) and the people's relationship to the land and water.

Time: 9:20 – 9:40
Title: Rediscovering Past Landscapes: Mapping Ancient River Channels, Waterfalls, Beaches and Caves on the Lakebed of Fathom Five National Marine Park
Authors: Steve Blasco, Andrew Promaine, Jim Shearer, Mike Lewis, Bill Fox, (Geological Survey of Canada)
Abstract: New high-resolution digital sonar mapping techniques have been employed to investigate the Huron-Georgian Bay lakebed between Tobermory and Fitzwilliam Island. Four bedrock channels, 3 drowned waterfalls, and several relict beaches and caves have been located and mapped in water depths ranging from 15 to 90 metres. The now submerged Niagara Escarpment north of Tobermory was subaerially exposed for at least 3 time periods between 9600 and 7200 years ago. Lake waters were 30 to 55m lower than present. During these low lake stands the 4 bedrock channels were occupied by waters flowing from Lake Huron into Georgian Bay over 3 ancient waterfalls. Bedrock caves and beaches were exposed or were generated. Low lake shorelines, riverbanks, beaches and caves would have formed potential occupation sites for paleoindians migrating across this 'landbridge' between the Bruce Peninsula and Manitoulin Island.

heritage without yet tackling issues of definition, identification and protection. UNESCO has been actively engaged since 1998 in developing tools to identify and protect intangible heritage. Through the "Masterpieces of the Oral and Intangible Heritage of Humanity" project, UNESCO recognizes cultural spaces or forms of cultural expression that are significant to mankind as a whole. How will this affect our perception of heritage? How will our work as heritage conservation practitioners be redefined? This paper will present the ICOMOS charters and main international conventions that mention the intangible aspect of heritage, will present the UNESCO initiatives, and will define some issues and challenges that they might represent for the archaeological heritage conservation practitioners.

Session: 160° of Arctic Archaeology
Thursday, May 8, 2003, MUSC 315.
9:00 am – 4:00 pm
Organizer: Julie Ross (Toronto)
Papers: 13

Session Abstract: This year's arctic session spans a vast geographic area and will cover the Palaeoeskimo to Historic periods. The presentations include an equally impressive range of methodological approaches. These approaches comprise standard archaeological method of lithic and zooarchaeological analysis and also the careful examination of archival photographs. The results promise to enhance and challenge our understanding of the arctic archaeological record.

Time: 9:00 - 9:20
Title: Coastal Resource Utilization on the Western Alaska Peninsula.
Author: Laura Smith (Idaho)
Abstract: Separating the North Pacific Ocean and the Bering Sea, the Western Alaska Peninsula is a dynamic environment that is tectonically, seismically and volcanically active. Living in such close proximity to the ocean has a profound impact on the social, economic and ideological aspects of a cultural system. The prehistoric Aleut residents of the Peninsula exploited numerous marine and terrestrial resources, employing a variety of strategies to cope with periodic episodes of environmental upheaval. This paper examines offshore resource utilization- focusing on sea mammals- on the Western Alaska Peninsula and the results of the Lower Alaska Peninsula Project.

Time: 9:20 - 9:40
Title: The Rbs Site: Analysis Of An 8000 Year Old Microblade Production Site In Northwest Alaska.
Authors: Julie Esdale (Brown); Jeff Rasic (U.S. National Park Service)
Abstract: RBS is a buried, single component microblade production site in northwestern Alaska with 5 overlapping AMS dates averaging 8,130 14C years BP. The assemblage contains 16 microblade cores, 3 projectile points, 8 expedient flake tools, 631 microblades and over 1787 flakes. Site occupants repaired inset tools and projectiles with bifacial points, shaped microblade cores, and mass produced microblades for later use. Contrary to a widespread assumption about raw material conservation in microlithic technologies, our analysis suggests that microblade production can be wasteful of lithic material in some contexts. This is likely due to selection of standardized microblades for existing hafts.

Time: 9:40 – 10:00
Title: Denbigh Houses in the Noatak National Preserve, Northwestern Alaska.
Authors: Robert Gal (US National Park Service) and Steven L. Klingler (U.S. National Park Service)
Abstract: Although cultural materials assignable to the Denbigh Flint Complex have been found from the Alaska Peninsula to Northern Alaska and throughout the Brooks Range, few dwelling structures have been identified on

became isolated shortly after their expansion onto the island of Newfoundland. This assumption is based primarily on stone tool typologies and distribution of lithic raw materials. My excavations on Huntingdon Island, just off the coast of the Porcupine Strand in Southern Labrador, may provide evidence that this assumption is false. New evidence suggests that the Middle Dorset on the island of Newfoundland may not have been as isolated as previously thought. In this paper I will argue for an expansion of what is considered the territory of the "Newfoundland Dorset" onto the southern shores and islands of Labrador. I will also discuss some suggestions for future research to examine this hypothesis.

Time: 13:30 – 13:50
Title: Dorset Raw Material Procurement, Mobility and Technical Adaptation in Nunavik.
Authors: Pierre M. Desrosiers (Sorbonne) and Noura Rahmani (Avataq Cultural Institute)
Abstract: Despite the fact that few sources of raw materials have been identified in Nunavik, it is however possible to deal with local vs. long distance procurement by means of the study of raw material management in habitation sites. This also helps us to understand why some varieties were sought and circulated over a long distance while other raw materials were limited to local exploitation. The study of some examples shows that flaking techniques were adapted to raw material sources distribution. The question of identifying technical tradition, in spite of environmental limitations to raw material accessibility, is integrated in a broader discussion.

Time: 13:50 – 14:10
Title: A Taphonomic Analysis of a Thule Zooarchaeological Assemblage from Diana Bay (JfEl-10), Nunavik.
Author: Susan Lofthouse (McGill)
Abstract: The Thule occupation of Arctic Québec (Nunavik) has received relatively minimal archaeological investigation. During the summer of 2002 a team composed of individuals from Avataq Cultural Institute, Université Laval, McGill University and local high school students from Quaqtaq, excavated a Thule site on Illutalialuk at the base of Diana Bay. JfEl-10 (DIA-10) was partially excavated by Patrick Plumet in 1974 and 1976. In contrast to Plumet's interpretation of an exclusively Thule occupation for this site, artifacts from JfEl-10 indicate a mixed context. The analysis of faunal remains from JfEl-10 will be presented with a specific consideration of the cultural and natural formation processes that resulted in this fossil assemblage.

Time: 14:10 – 14:30
Title: The Evolution of Inuit Subsistence Economies in the Mackenzie Delta, Northwest Territories.
Authors: Matthew Betts (Toronto), T. Max Friesen (Toronto)
Abstract: The East Channel of the Mackenzie River was occupied by one of the most populous and complex Inuit cultures in the Canadian Arctic. The Mackenzie Inuit, ancestral to modern Inuvialuit practiced a unique and highly productive subsistence economy that focused on hunting beluga whales which congregate in the mouth of the East Channel each summer. Recent archaeological research in the area has produced a high resolution database of faunal remains documenting the development of this economy. In this paper, we utilize faunal remains from four archaeological sites, Cache Point, Pond, Gupuk, and Kittigazuit to trace the evolution of subsistence systems on the Mackenzie River from the earliest known neo-Eskimo settlement in the 13th Century to the florescence of Mackenzie Inuit culture several centuries later.

Time: 14:30 -14:50
Title: Inughuit Histories: Photographs to Archaeology.
Author: Genevieve LeMoine (Peary-MacMillan Arctic Museum)
Abstract: The rich photographic and film collections of The Peary-MacMillan Arctic Museum provide an unequalled window onto the 20th century history of the Inughuit and their role in Arctic exploration. A recent project to document these images more thoroughly has revealed their potential for informing archaeological research as well. The images, and the oral histories gathered with them, provide information that complements and builds upon historical and ar-

for culture, but a flexible, conceptual tool capable of reflecting the full-range of cultural actions, and embedded with social meaning. With recent developments in mind, this session proposes to bring together researchers from diverse theoretical and geographical backgrounds in order to identify the range of topics considered under the umbrella of regional approaches today and to demonstrate the ways that regional archaeology is essential to their research objectives.

Time: 9:00 – 9:20
Title: Shifting Views in Archaeological Histories of the Northwest Coast.
Author: Aubrey Cannon (McMaster)
Abstract: A review of Northwest Coast research shows the interpretive luxury afforded by analytical scales that are either site-centric or supra-regional in scope. Regionally conceived studies, in contrast, reveal particular patterns of local variability that are the basis for more precise historical interpretations. Local historical narratives, though no more inherently accurate than extant supra-regional frameworks, provide a more ready basis for further research programs designed to evaluate their accuracy and to extend their interpretive scope. Comparison and evaluation of different approaches to Northwest Coast archaeology emphasize the need to define and conduct research at regional scales of analysis appropriate to the historical processes and events that are the focus of interpretation.

Time: 9:20 – 9:40
Title: The Porcupine Strand: A Multi-ethnic Landscape in Central Labrador.
Author: Lisa Rankin (MUN)
Abstract: The Porcupine Strand Archaeology Project, initiated in 2001 was conceived as a regional archaeology project aimed at defining the pre-contact interactions between the Indian and Palaeo-eskimo populations who inhabited the coast of Labrador. The study area, a 40km stretch of sand dune coastline adjacent to many rocky islands, was defined by three distinct concepts of region: 1) as a geographically unique setting on the Labrador coast; 2) as an archaeologically empty landscape, reflecting the lack of archaeological fieldwork, and 3) as a potential zone of inter-ethnic interaction located close to the northern and southern limits of several pre-contact cultural expansions. Archaeological survey and geomorphological work undertaken in this region are helping to redefine the Strand as a multiethnic landscape occupied by at least 8 distinct populations over 7000 years. As work progresses a complex, changing and contingent social landscape is emerging, but comprehending this landscape requires that many different scales of regional behavior are interwoven.

Time: 9:40 – 10:00
Title: Fluctuating Boundaries in Huron Prehistory.
Author: Peter Ramsden (MUN)
Abstract: This paper considers the Huron region in south-central Ontario over a 700 year time span, from geographical and socio-political points of view. It attempts to reconcile the notion of a cultural region that has clearly discernable long-term cultural continuity, with changes that the region exhibits in geographical extent and location, as well as political and ethnic structure.

Time: 10:30 – 10:50
Title: An Agency Centered Approach to Regional Archaeology: Natufian Interaction in the Levant.
Author: Carla Parslow (Toronto)
Abstract: Previous research on the Natufian has revealed much about past ecology and environment in the Natufian's core and periphery areas, its technology and material culture, and its settlement and subsistence strategies. Within the core area, there is overall consistency in technology and material culture, while variability is much greater in the periphery. Previous researchers have explained this variability primarily from an ecological perspective, and have given little attention to social relations or the role of production, maintenance and transformation of social institutions in this variability. Unlike previous ecologically focused work, this research focuses on the interactions of individuals and

groups of individuals who made, used, and exchanged artifacts and knowledge about artifacts at the regional scale. We can better understand variability between the core and periphery through a regional investigation that emphasizes social relations rather than environmental factors

Time: 10:50 – 11:10
Title: A Dynamic Neolithic Landscape in the Wadi Ziqlab, Northern Jordan.
Author: E.B. Banning (Toronto)
Abstract: At the end of the Pre-Pottery Neolithic in the southern Levant, widespread abandonment of large and densely-occupied settlements has led many archaeologists to assume regional abandonment in the face of possible environmental deterioration. An alternative hypothesis, that the entrenchment of food-producing economies encouraged a dispersed, dendritic settlement system, has been the focus of investigations in Wadi Ziqlab, northern Jordan. The discovery of small Late Neolithic farmsteads scattered along the ancient watercourse has implications not only for economic changes but also for change in social organization and ideology.

Time: 11:10 – 11:30
Author: Eldon Yellowhorn (SFU)

Session: The Archaeology of Health
Thursday, May 8, 2003, MUSC 314.
1:30 pm - 4:40 pm
Session Organizer: Rhonda R. Bathurst (McMaster)
Papers: 6 + discussant (Ann Herring, McMaster)

Session Abstract: Health: A condition of being sound in body, mind and spirit - especially freedom from physical disease or pain (Merriam-Webster). Traditional definitions of health emphasize the physical condition. Therefore, the analysis of health in past societies has long been the domain of physical anthropology and osteology. But the context of these physical studies have frequently been removed from, or presented in isolation of, their cultural associations. As a complement to human physical studies, archaeology centres on the material remains of our cultural past, providing context, depth and additional evidence to interpretations of the past. This symposium draws together a multidisciplinary compliment of innovative methods and perspectives that offer future directions toward providing a more holistic interpretation of health in the past.

Time: 13:30 -13:50
Title: Bones and Contexts: Ancient DNA and Studies of Disease in the Past.
Author: Jodi Lynn Barta (McMaster)
Abstract: Targeting specific pathogens in ancient DNA (aDNA) analyses of human and faunal skeletal remains may help to provide information on health status at both the individual level and within an associated population. This paper will outline the extraction, amplification and analysis of aDNA from two separate cases, one human and one faunal that tested positive for the presence of *Mycobacterium tuberculosis* complex DNA. Each case displays vastly different skeletal characteristics that may or may not be indicative of tuberculosis infection. By confirming the presence of tuberculosis infection, the aDNA data provides the opportunity to study varied skeletal manifestations of tuberculosis and to combine this data with other available evidence in an attempt to understand this disease and health in the past.

Time: 13:50 – 14:10
Title: Towards Defining Standards of Archaeoparasite Analysis.
Author: Rhonda R. Bathurst (McMaster)
Abstract: Many interpretations of health in past human societies insinuate the likelihood of parasite infection, but relatively few studies have sought primary evidence of this condition. The study of ancient parasites is a relatively new specialization in archaeological studies that has developed intensively over the last 20 years. These studies are increasingly used in ecological and epidemiology interpretations of past societies, but as yet are not standard procedures at archaeological sites. This paper discusses the process of archaeoparasite analysis, using the author's current research on the Pacific Northwest Coast as an example. It will discuss some standard sampling procedures, taphonomical issues, quantitative measures and the interpretive benefits of incorporating such studies more frequently into archaeological and physical anthropological studies.

Time: 14:10 – 14:30
Title: Native North American Resistance and Susceptibility to Infectious Disease: an Anthropological Approach.
Author: Linda Larcombe (Manitoba)
Abstract: The human immune system has evolved to allow individuals to survive exposure to the disease environment in which a population exists. A recent study examined 300 contemporary Manitoba Aboriginal and Caucasian individuals and it was demonstrated that the genetics of the immune systems of Aboriginals differed from that of the Caucasians. These findings suggest that the immune systems of Aboriginal and Caucasian populations differ in their ability to mount an effective immune response against certain infectious diseases. This hypothesis will be tested through a combined analysis of archaeological, ethnohistoric and molecular data from past and present populations. This research will contribute directly to our understanding of the environmental and genetic pressures in which the immune response of Aboriginal populations evolved.

Time: 14:30 – 14:50
Title: The Use of Peripheral Quantitative Computed Tomography (pQCT) to Examine Sex and Age Related Change in Bone Density in a 19th Century Southern Ontario Population.
Authors: M. Selbie, S.C. Agarwal, S. Saunders, and C. Webber (McMaster)
Abstract: Bone loss and fragility is a common disorder affecting modern Western populations. The examination of osteoporosis in the archaeological record can contribute much to our understanding of the disease in both the past and the present. Commonly used in a clinical setting, Peripheral Quantitative Computed Tomography (pQCT) is a non-invasive imaging technique for the examination of bone quantity. The purpose of this study was to examine age and sex-related changes in bone density in a 19th century archaeological sample from the St. Thomas Anglican Church Cemetery from Belleville, Ontario. Left radii from a total of 170 individuals (both male and female) were scanned using a Stratec pQCT scanner. Patterns of age-related in cortical bone density were analyzed and compared between the sexes. This study demonstrates that pQCT is an effective technique for the examination of radial cortical bone density in archaeological bone.

Time: 15:20 – 15:40
Title: Identifying Disease in Faunal Remains at the Histological Level.
Author: Tanya von Hunnius (McMaster)
Abstract: The use of histology on human skeletal and mummified remains is a well known method. In this context, it is used to estimate age, understand decomposition of tissue or taphonomic history of the burial environment and diagnose disease. This latter application is an area that is seldom used by zooarchaeologists. Macroscopic observation of pathology is a good beginning to an analysis, but a microscopic perspective of faunal material can provide an additional perspective of osseous response to stress and disease. Those studies, which have used histology to help diagnose pathology in faunal remains, will be discussed. However, studies in human paleohistopathology will be relied

on to emphasize the utility of microscopy in zooarchaeology. Identifying disease in faunal remains at the histological level has the potential to suggest new evolutionary models and indicate possible routes of transmission between humans and animals for some diseases.

Time: 15:40 – 16:00
Title: Isotopic Evidence of Anemia among the Coastal Maya.
Authors: Christine D. White (Western), Jocelyn S. Williams (Calgary) and Fred J. Longstaffe (Western)
Abstract: Because health is critically dependent on nutrition, paleodietary isotopic analysis can be a useful means of testing dietary causes for non-specific pathology such as anemia. Found in high frequencies among ancient Maya populations, anemia has often been attributed to heavily maize dependent diets. Bone collagen of 67 individuals from two Postclassic coastal sites, Marco Gonzalez and San Pedro, Belize, was analysed for stable carbon and nitrogen isotope ratios in order to test dietary hypotheses for the etiology of anemia. Neither insufficient protein nor a high carbohydrate (maize) diet appear to be the cause of anemia at these sites. Maize consumption did not differ significantly between normal and anemic individuals. However, anemic individuals consumed foods from significantly lower trophic levels, in this case more shellfish and/or other marine invertebrates. In general, the iron content of shellfish and fish does not differ, so a dietary difference in iron is not the likely cause of anemia. Low trophic level copepods (aquatic crustaceans) are hosts of the "broad fish tapeworm" or *Diphyllobothrium latum* which can cause pernicious anemia. The possibility that the presence of these organisms could have caused anemia in the Maya at these sites is investigated.

Time: 16:00 – 16:40
Discussant: Ann Herring (McMaster)

Session: Spatial Analysis
Thursday, May 8, 2003, MUSC 319.
1:30 pm - 4:40 pm
Session Chair: Katherine Patton (Toronto)
Papers: 8

Time: 13:30 – 13:50
Title: Ridge-Top Cache Pits and Settlements: Indications of Regional Conflict at Kitwancool Lake.
Author: Paul Prince (Trent)
Abstract: Cache pit features comprise a ubiquitous site type in the interior and coastal river valleys of British Columbia, but their presence is rarely considered informative beyond being evidence of storage. This paper reports on recent survey work at Kitwancool Lake where an interesting association between cache pits and very steep landforms is noted. House-pit and refuge or "look-out" sites occur in similar defensible positions. These site locations are interpreted within the context of a model of regional interaction that included conflict. It is suggested that meaningful associations in the distribution of cache pit sites in other regions may also be detectable if examined in the context of trends in local prehistories constructed on the basis of more traditional evidence.

Time: 13:50 – 14:10
Title: Alpine Adaptations in the Northwest of North America.
Authors: Rudy Reimer/Yumks (First Heritage Archaeological Consulting/Squamish Nation)
Abstract: The geographical extent and antiquity of use of high elevation alpine and sub-alpine environments are often viewed by archaeologists as to extreme and harsh for past human settlement and use. But what is the actual extent of the archaeological evidence in the mountain regions of western North America? Recent archaeological survey and

literature review indicate that the use of high elevation areas throughout northwest North America is variable, expressed through variable; site types, resources use, technological orientation, and temporal resolution. Suggestions for future research in different mountainous/alpine regions are presented.

Time: 14:10 – 14:30
Title: Changing Settlement and Technology from Terminal Archaic to Middle Maritime Woodland in the Lower St. John-South Central New Brunswick Area.
Authors: Susan Blair (Toronto)
Abstract: The lower reaches of the Saint John River contains varied and rich microenvironments, and significant potential for both protracted and concentrated pre-contact human activity. Its ecological heart is the Grand Lakes district. This broad estuarine system of rivers, lakes, marshes and hardwood swamps contains a dense mix of resources to support these activities. It is therefore not surprising that recent developments in this region have exposed major archaeological sites. These led to a series of salvage projects in the late 1990s. I have integrated the material from two of these sites, Jemseg Crossing (BkDm14) and The Meadows (BlDn26) into previous information from the region, primarily from the Fulton Island site (BlDn12). Together, these sites contain a record of habitation spanning more than 2000 years. This record consists of intact features and artifacts that date to between ca. 3400 Cal BP to 1400 Cal BP, encompassing the period between the late Terminal Archaic and the end of the Middle Maritime Woodland. This paper presents research into the intra- and inter-site patterning evident in these features and their contents, and their implications for our interpretations of settlement, mobility and technological organization in the Lower Saint John River of south central New Brunswick.

Time: 14:30 – 14:50
Title: Alluring Algoma Beaches.
Author: Bill Allen (Independent)
Abstract: Behind the mask of the rocky Thirty Thousand Islands of Muskoka and Parry Sound Districts in Ontario's northeastern Georgian Bay lie sporadic remnants of Algoma phase post glacial beaches. Tucked along the archipelago of that period are archaeological sites which are revealing influences from Lake Superior to the St. Lawrence Valley. Multicomponent Canadian Shield sites from Shebeshekong Bay to the Severn River reveal hints of geographically distant cultural influences. A northern Parry Sound site yielded a rare biconically drilled coal gorget similar to those found in glacial kames of the Ohio Valley. A Muskoka site of apparent Hopewellian influence had a mound with a fabric pouch, copper beads, raw copper, cache blades, blocked end tubular pipes and exotic cherts. All of these sites fall within the narrow range of elevations of Algoma phase raised beaches. This illustrated presentation will show provenienced artifactual evidence and call for a more intentional regional investigation. We stand a better chance of understanding the extent of Late Great Lakes-St. Lawrence cultural influences if we include thorough study of Algoma phase post glacial beaches as a future direction of the archaeological assessment of Georgian Bay.

Time: 15:20 – 15:40
Title: Refining the Definition of Cultural Levels at Karabi Tamchin: A Quantitative Approach to Vertical Intra-Site Spatial Analysis.
Authors: Kirsten Anderson (Manitoba) and Ariane Burke (Manitoba)
Abstract: The visual identification of archaeological levels can be difficult when the stratigraphy is complex. In this study, a Geographic Information System (GIS) is applied to a three-dimensional intra-site spatial analysis of artifact and bone distributions from Karabi Tamchin, a Middle Paleolithic site from the Crimea, Ukraine. The distribution of archaeological materials is examined using the K-means statistical clustering method, combined with a series of data transformations to identify and interpret the vertical and horizontal spatial organization of the site. Results indicate that K-means cluster analysis, used in conjunction with GIS, provides a means of testing the integrity of archaeological levels as well as identifying palimpsests. Within levels, K-means is used to identify discrete clusters of archaeological materials that can be used to reconstruct and compare patterns of spatial organization on the site.

Time: 15:40 – 16:00
Title: The Relationship Between Spatial and Social Order at Ninstints, Queen Charlotte Islands, B.C.: An Exercise in Space Syntax Analysis.
Author: Katherine Patton (Toronto)

Abstract: Space syntax analysis is a method frequently used in archaeology to illustrate the extent to which architectural forms engage in reciprocal relationships with society. It has been successfully applied in contemporary historic and prehistoric settings where settlement remains are well-defined and well-preserved. Space syntax analysis has not yet been incorporated into archaeological household or settlement studies of villages on the Northwest Coast of North America. This may be due largely to the relatively poor conditions of most village remains and tendency toward small scale archaeological excavations on the Coast. This paper presents the results of an exploratory exercise into how space syntax analysis could be applied to Northwest Coast historic villages and gauges the method's efficacy in archaeological contexts. The study assesses the continuity of open space within the historic Haida village site of Ninstints (or SgA'ngwa-i), Queen Charlotte Islands, B.C., using Hillier and Hanson's Alpha Analysis. The permeability of Haida houses is assessed from a rudimentary floor plan, created from diagrams and descriptions of historic period Haida housing, using Gamma Analysis. The results are interpreted to reflect the relationship between inhabitants, and inhabitants and strangers, but are also tested against what is known about 19th century Haida social organization.

Time: 16:00 – 16:20
Title: Analysis of the Diagnostics Recovered from the Hwy 63 Extension Project.
Authors: Courtney Cameron (Alberta) and Sandra Pentney (Alberta)

Abstract: In 2000 and 2001 archaeological testing and excavations took place on the Hwy 63 extension project north of Fort MacKay, Alberta. Approximately 250,000 items were collected, including 13 diagnostic artifacts. This paper is a preliminary attempt to establish the nature of pre-contact occupations present in the study area. The styles of the diagnostic artifacts suggest that the area around Fort MacKay was occupied during the Middle Forest period. The diagnostics found are characteristic of both taiga/barrenland and northern plains environs.

Time: 16:20 – 16:40
Title: Behavioural variability at the Middle to Upper Paleolithic Transition in Central and Eastern Europe.
Author: Ildiko Horvath (McGill)

Abstract: The birth of modern human culture and the changes that precipitated human cultural and biological evolution at the transition from the Middle to the Upper Paleolithic have fueled one of the longest-lasting and most active debates in Paleolithic archaeology and palaeoanthropology. At the core of this debate lie markedly different views on the nature of the transition. While the interpretation of the archaeological and palaeoanthropological record has led the majority of archaeologists to believe that a clear break is evident between the Middle and the Upper Paleolithic, many contend that the shifts in human culture in the earliest phases of the Upper Paleolithic reflect amplifications of gradual changes that first emerged during the Mousterian. Recent evidence provided by archaeological industries of the transitional period and the early Upper Paleolithic in Central and Eastern Europe points to marked regional differences that characterize hominid cultural behaviour at this crucial time. As reflected by the archaeological material from several roughly contemporaneous sites on the Middle Prut Valley, Romania, rupture and continuity are both integral to the changes that triggered acceleration in cultural development at the beginning of the Upper Paleolithic.

Session: Who's on First? Studies of Early Human Occupation in Canada
Thursday, May 8, 2003, MUSC 308.
3:20 pm – 5:00 pm
Organizer: Chris Ellis (Western)
Papers: 5

Time: 15:20 – 15:40
Title: The Crowfield (AfHj-31) Paleoindian Site.
Authors: D. Brian Deller, Christopher Ellis & Roger King (Western)
Abstract: Excavated in 1981 and 1982, the Crowfield site near London, Ontario would be a typical small Paleoindian campsite except for the presence of a large pit feature remnant associated with hundreds of pieces of at least 200, purposefully burned, heat-fractured, predominantly Onondaga chert, artifacts. Although the subject of a preliminary published report, the site has not been reported in detail and there are several misconceptions about it in the literature. As aids to reconstructing the contents of the feature, its nature and its meaning, we provide here an update on recent research focusing particularly on continuing efforts at artifact refitting, mapping of fragments, and soil analyses.

Time: 15:40 – 16:00
Title: The Spanish River Biface cache and Shield Archaic Caching Behavior in the Boreal Forest Region.
Authors: P. J. Julig, and Dorian Jean (Laurentian)
Abstract: A large cache of oval biface preforms and some uniface tool types from the Spanish River basin were examined technologically, typological and for lithic source. The lithic source was determined by minimally-destructive FTIR methods to be exclusively HBL (Hudson Bay Lowland) cobble chert, likely from secondary deposits in northern Ontario. Although mostly bifaces, the cache represents a used tool kit containing many tool types and used-edge configurations. This is similar to those present tool edge configurations present in other early pre-ceramic regional assemblages. The cache is interpreted within the context of other known lithic caching behavior in the boreal forest region.

Time: 16:00 – 16:20
Title: Technological Change at the Palaeoindian-Early Archaic Transition: An Examination of Formal End Scrapers from the Lower Great Lakes.
Authors: Katherine McMillan (Western)
Abstract: This paper presents the results of a detailed comparison between Great Lakes Palaeoindian and Early Archaic Nettling end scrapers. The purpose of this research was to assess claims regarding the changing nature of lithic production strategies during the Palaeoindian-Archaic transition. In contrast to highly mobile Palaeoindian populations, who relied on single, high-quality primary chert outcrops, Archaic populations have been characterized as relatively sedentary groups who exploited various local, low-quality and often secondary lithic sources. The results of this study, though, show that the Nettling population exploited a large territory, moving between at least two lithic sources, a strategy that may have reduced raw material constraints faced by Palaeoindians. Lithic production in the Archaic has been described as haphazard, as opposed to the highly standardized Palaeoindian production techniques. Few differences, though, are noted in end scraper blank production between the two time periods. One exception is that Early Archaic toolmakers were apparently becoming less selective in their choice of blanks, with some specimens requiring substantially more post-detachment modification than Palaeoindian forms. These results confirm the beginnings of a technological shift, but emphasize its transitional rather than abrupt nature and provide unique insight into Early Holocene adaptations in the Lower Great Lakes.

Time: 16:20 – 16:40
Title: Late Plano Occupation at the St. Louis Site, FfNk-7, Central Saskatchewan.
Authors: LJ Butch Amundson (Stantec) and David Meyer (Saskatoon)
Abstract: The St. Louis Site, FfNk-7, is located on a terrace of the lower South Saskatchewan River in central Saskatchewan. The site was discovered in the summer of 2002 while fulfilling the CRM requirements for Saskatchewan Highways and Transportation's proposed St. Louis Bridge. Buried by a series of over-bank, vertical accretion events, the site contains as many as thirteen cultural occupations between at least 8400 and 4590 BP. The stratigraphic column is over 2 m thick and contains numerous old soil horizons developed on massive, calcium carbonate-rich silt. Long-since abandoned, the terrace is a narrow remnant of a former a flood plain, much of which has been eroded away by the meandering of the river channel. This former flood plain revealed evidence of repeated bison kill and butchery, as well as habitation events. Of specific interest to the current presentation are cultural layers VII and VIII. From Layer VII we recorded the remains of a short-lived hearth, a chipping station; bison remains including a skull whose horn core spread indicates an extinct species, fish and waterfowl remains and the base of a Late Plano projectile point. This layer has been radiocarbon dated using bone to a normalized age of 7810 +/- BP (Beta-173609). Layer VIII, with a radiocarbon age of 8400 +/- 70 BP (Beta-173610) contains the remains of bison, fish, rabbit, and grouse as well as a possible shell sequin.

Time: 16:40 – 17:00
Title: By Land or Sea? A Review of Current Evidence Supporting a Coastal Route for the First North Americans Penetrating South of Beringia.
Author: Knut R. Fladmark (SFU)
Abstract: This paper offers an updated review of the two dominant theories concerning how people first spread south of Beringia in North America during the Late Pleistocene. They are (1) via an interior "ice-free corridor" between Laurentide and Cordilleran ice masses, and (2) via a "coastal route", or chain of unglaciated refugia around the Northwestern Pacific margin of the continent. In summary, it now seems coalescent glaciers blocked virtually the entire "corridor" during the Late Wisconsin glaciation and that a continuous, inhabitable, ice-free strip did not open up in that area before about 11.5-11.3 kya. Dated archaeological sites also support a south-to-north movement by the first people penetrating into that mid-continental region. In contrast, rapidly accruing evidence indicates that significant portions of the outer Pacific margin of North America, stretching almost continuously from the Bering Land Bridge to the southern margin of Late Wisconsin glaciation, were ice-free and supporting significant terrestrial biota by (at least) 13-14 kya. Thus, a coastal route was clearly available to humans 1500 to 3500+ years before the so-called "ice-free corridor". The current absence of equivalently old coastal archaeological sites simply reflects the fact that most desirable shoreline habitats of that age are now deeply submerged and unavailable to study.

Session: The Application of Archaeological Data/Methods to Modern Environmental Problems
Friday, May 9, 2003, MUSC 308.
9:00 am – 11:30 am
Organizers: Maribeth Murray (Alaska) and Jeannette Smith (Alaska)
Papers: 6

Session Abstract: Archaeological data and methods play an increasingly important role in the understanding of present environmental issues, and in the modeling of future scenarios. In many situations, contemporary social and biophysical responses to land-use, pollutants, resource utilization and spatial organization, to name but a few, have informing

analogues recorded in past cultural and environmental sequences. Papers in this session will explore how these analogues are obtained, and how they are used and potentially misused in the context of modern environmental problems and policies.

Time: 9:00 – 9:20

Title: Tracing Sustainable Land Management Strategies in Semi-Arid Southern Africa.

Author: Jeannette Smith (Alaska)

Abstract: Semi-arid regions of southern Africa have a long history of sustainable agropastoral land use, and yet the majority of policy makers and conservationists over look the strategies and lessons that may be extracted from the study of these historical patterns. In an attempt to address this bias, a model of shifting sustainability, derived from archaeological sequences spanning the last 1200 years in the Shashe/Limpopo River Basin region of southern Africa, is presented here. Climatic reconstruction indicates that through out this period the region has been semi-arid with variable annual precipitation, while in contrast, archaeological evidence shows that the region has been able to support large-scale agropastoral production, and complex societies that participated in international trade. This paper presents a series of agropastoral strategies, and social and economic networks employed to offset climatic variability and sustain occupation in the region.

Time: 9:20 – 9:40

Title: Reconstructing Marine Paleoproductivity with Archaeofauna and Sediment.

Authors: Amy C. Hirons, Maribeth S. Murray and Bruce P. Finney (Alaska)

Abstract: The stable isotope signatures of biologic organisms recovered from archaeological sites offer excellent data on past environmental and ecological conditions. Coastal sites contain well-preserved archaeofauna and abundant deposits of marine shellfish. Stable carbon and nitrogen isotopes ($\delta^{13}C$ and $\delta^{15}N$) derived from bone collagen provide information about changes in food web dynamics, and productivity levels, and thus ecosystem changes. Recent work indicates that $\delta^{13}C$ is strongly controlled by the photosynthetic rate in phytoplankton and differing ocean productivity regimes. These findings provide a mechanism for linking $\delta^{13}C$ values and the magnitude of primary production. Any changes in the length of the marine food web induced by climate change or food web interactions will be exhibited in the $\delta^{15}N$ in the bone collagen of marine vertebrates. Stable oxygen isotopes ($\delta^{18}O$) and Mg/Ca ratios of marine mollusks and microfossil assemblages in sediment cores provide information on changes in ocean temperature and salinity. Factors other than temperature have little influence on skeletal Mg/Ca ratios while $\delta^{18}O$ varies with both salinity and temperature. All of these analyses in combination provide a picture of ocean and atmospheric climate change.

Time: 9:40 – 10:00

Title: Assessing Mercury Levels in Ancient and Modern Alaskan Caribou: Implications for Community and Ecosystem Health.

Authors: S. Craig Gerlach, Lawrence K. Duffy, and Maribeth S. Murray (Alaska)

Abstract: At present, there is little information about the processes and pathways related to mercury accumulation in Arctic and sub-Arctic coastal and terrestrial ecosystems. Caribou are typically associated with the tundra biome where they graze on low-growing plants such as lichen, sedge, and cotton grass. Changes in past contaminant levels in these plants may be indexed by measuring the mercury concentrations in caribou tissues, fur, and bones. In this study, northwestern Alaska caribou bone fragments from archaeological sites dating to approximately 100 years B.P. showed detectable mercury and methylmercury levels. As the sample sizes in our study are still small, with large standard deviations, conclusions are provisional. However, we now know that archaeological bone is amenable to this type of analysis, and can further explore long-term and present day community and ecosystem health through this venue.

Time: 10:30 – 10:50
Title: Wood Use in the Arctic: Driftwood Past and Present.
Author: Claire Alix (Alaska/Sorbonne)
Abstract: Previous analysis of wooden remains from coastal arctic archaeological sites has raised the question of how much choice coastal carvers were able to exercise when selecting wood for their work. This, in turn, has posed the question of driftwood abundance and composition. The problem, then, is to elaborate the necessary tools and build the reference data that would enable archaeologists to reconstruct the environmental, technological, cultural and eventually social framework of wood use. Environmental change, as it relates to driftwood and its use, and as evidenced in the archaeological and oral history record of Alaska is an important element in the overall picture. The consequences of climatic change on driftwood are intermingled with those of cultural but also technological changes the people and their environment have experienced in the last 100 years. This paper presents how analyses of driftwood data from the past and the present each allows the other to explore the mechanisms of its "production" and its use.

Time: 10:50 – 11:10
Title: On the Use of Historical Proxies in Wildlife Management and Conservation Biology in Alaska and Canada.
Authors: S. Craig Gerlach (Alaska) and Amy Turner (Alaska)
Abstract: Sources of historical information that commonly serve retrospective analyses are becoming more important in the resolution of debates in wildlife management, conservation and biology. Archaeology, paleontology, chronometric dating, oral sources and documentary records provide just a few examples of the kinds of information that wildlife managers find useful for understanding of the historical and ecological dimensions of human-wildlife interactions over variable periods of time. With an example drawn from the Yukon flats of interior Alaska, Yukon, and the Northwest Territories (NT), and with a summary of how various historical records are used and evaluated, this paper discusses the data sets used to demonstrate that Wood Bison (*Bison bison athabascae)* were an important subsistence resource for Athabaskans until possibly as late as the 1800's, that the historic distribution of this species was considerably more extensive than once thought, and that Wood Bison were a keystone species in Alaska, Yukon, and the NT until possible as recently as the turn of the 20th century. The use of historical records in the continuing Wood Bison debate will also be discussed in relation to the style and debate tactics of federal wildlife managers, and, alternatively, in a context of common-sense and good use of science and history to resolve wildlife management disputes.

Session: Archaeological Research at National Historic Sites of Canada
Friday, May 9, 2003, MUSC 309.
9:00 am - 11:10 am
Organizers: Jim Molnar and Christophe Rivet (Parks Canada)
Papers: 6

Session Abstract: Canada has a system of 884 designated National Historic Sites spread across the country, representing many themes of Canadian history. Most of these sites have archaeological resources that are time capsules of our ountry's history. This session presents recent archaeological researches at a number of sites that showcase the best of archaeologists' abilities to understand, protect and present this history.

Time: 9:00 – 9:20
Title: A Team Effort: The Prince of Wales Fort Stabilization Project.
Author: Sandra Santesso (Parks Canada)
Abstract: The Prince of Wales Fort in northern Manitoba served as a fortified post for the Hudson's Bay Company during a period of intense conflict between the English and French. Destroyed by the French in 1783, it was never reoccupied. Between 1934 and 1960 Parks Canada repaired and rebuilt sections of the Fort. Now, some 50 years later, the Fort is under siege again — this time by the ravages of time and water. To save the walls of Prince of Wales Fort from further deterioration, Parks Canada created a multidisciplinary team of historians, engineers and archaeologists. Our cooperative relationship proved beneficial to all the disciplines involved. But more important, the team approach significantly benefited the National Historic Site. The involvement of Archaeological Services led to exciting discoveries of artifacts and features where historical documentation suggested that little would be found. Based on the data that the historians and archaeologists provided, the engineers can now create stabilization proposals that will help save the Fort's walls, while respecting the historic site's integrity and remaining sensitive to buried cultural material.

Time: 9:20 – 9:40
Title: Research and Management Issues Concerning Burial Grounds at Fur Trade National Historic Sites: The Case of Rocky Mountain House.
Authors: Peter D. Francis and John E.P. Porter (Parks Canada)
Abstract: Burial grounds associated with fur trade posts in western Canada have been identified both in the historical record and by archaeological investigation at several National Historic Sites managed by Parks Canada. For example, locations of discrete burial grounds are known at Fort St. James and Fort Langley in British Columbia and Jasper House and Rocky Mountain House in Alberta. There are research concerns and issues of cultural resource management common to all of these sites. These are identified and discussed in this paper. Each site, however, gives rise to particular concerns, and this paper will focus on management issues arising from the Fur Trade Era burials at Rocky Mountain House National Historic Site of Canada. Significant cultural resource issues include the extent of the known burial ground and the possibility of additional burial areas within the boundaries of the National Historic Site. These research and management issues take on increased importance when combined with Aboriginal concerns as well as development pressures from the oil and gas industry, which shares a portion of the national historic site.

Time: 9:40 -10:00
Title: The Archaeology of Place: 5000 Years of Human Occupation of Port au Choix.
Author: M.A.P. Renouf (MUN)
Abstract: This paper highlights 5000 years of human occupation of Port au Choix, including Amerindian, Palaeoeskimo, European and Euro-Canadian occupations. Research emphasis has been on how these different cultures adapted to the changing environment, and results have shown different and similar adaptive strategies.

Time: 10:30 -10:50
Title: Re-interpretation of a National Historic Site through Archaeology.
Author: Bill Nesbitt (Dundurn National Historic Site)
Abstract: Dundurn Castle has operated as a public museum since 1900 and as an historic house since 1965. An on-going programme of building and landscape restoration, begun in 1990, has always included "leisurely" mitigation, and research based archaeology. These activities have greatly informed, and in some cases radically altered, the interpretation and re-development of the site.

Time: 10:50 – 11:10
Title of Presentation: Landscapes of Power: Fulford Place, Brockville and the Olmsteds
Author: Dena Doroszenko (Ontario Heritage Foundation)
Abstract: By the time Senator George Fulford I built Fulford Place in Brockville, Ontario, the Thousand Islands region was well on its way to becoming a tourist resort heralded as "The Venice of America" because it was situated on a series of islands connected by a joint waterway. Fulford took property he already owned, property whose characteristics already identified him as a member of the local elite and completely reshaped it. Fulford Place was the creation of its owner, George Fulford I, and its professional designers. However, Fulford clearly identified and orchestrated to a degree the construction of Fulford Place to fulfil his ambitions and dreams. Since Fulford's initial goal was to rework his Brockville estate through the improvement of the landscape and re-orientation of the property from the water, Fulford first contacted the American landscape firm of Olmsted brothers in 1896. Archaeological investigations at Fulford Place have been minimal to date primarily due to the amount of landfill terracing undertaken during the construction phase of Fulford Place, as designed by the Olmsteds. In 2002, planned restoration of the formal garden, designed by the Olmsted Brothers firm, led to a project in this area in August. The results of this project will be discussed in this paper.

Time: 11:10 – 11:30
Title: Basement Archaeology: The Coal Cellar / Wine Cellar in Calgary's Lougheed Mansion.
Author: Dale Elizabeth Boland (Calgary)
Abstract: Built in 1891, Beaulieu (the Lougheed Mansion) was the impressive home of Senator Lougheed and family, and, after the Depression, housed the Canadian Women's Army Corps and the Red Cross. The University of Calgary's Programme for Public Archaeology was invited to partake in the current large-scale renovation project and particularly to investigate a story about the destruction of the wine cellar in the late 1940s. This paper presents the findings from these excavations; evidence of the varying functions of the basement space will be detailed in an effort to understand household activities during the early part of Calgary's history.

SESSION: Archaeology in Forensic Anthropology
Friday, May 9, 2003, MUSC 314.
9:00 am – 10:50 am
Organizer: Tracy Rogers (Toronto)
Papers: 4

Session Abstract: The field of forensic anthropology has evolved from the simple application of physical anthropological techniques in skeletons of forensic interest, to complete participation in the case. Forensic anthropologists are trained and educated in the procedures of: (1) crime scene investigation, including establishing appropriate boundaries, proper evidence recovery, chain of custody, etc.; (2) searching and recovering human remains, including perpetrator behaviour, animal activity, environmental movement, normal disarticulation sequences, visual indicators of primary

and secondary scenes, recognition of clandestine burials and body dumpsites, systematic search protocols, mapping, excavation, etc.; (3) scene interpretation, including the body-grave interface; (4) the analysis of human remains in a forensic context, including the biological profile, personal identification, health and trauma analysis; (5) the presentation of evidence in court. In Canada, forensic anthropology is a forensic science that incorporates aspects of biological anthropology, archaeology, cultural anthropology, and criminalistics. There is no artificial division of the case into field and lab components. This session outlines the use of archaeological and skeletal analyses in the investigation and interpretation of outdoor crime scenes. Archaeologists with an interest in forensic science are encouraged to broaden their training to incorporate forensic, lab and court theoretical and methodological concerns.

Time: 9:00 – 9:20
Title: The Role of Archaeology in Forensic Anthropology.
Author: Tracy Rogers (Toronto)
Abstract: This paper outlines the role of archaeology in forensic anthropology, addressing the ideological differences between the Canadian and British approaches to the discipline. Emphasis is on the relationship between field and lab work, the importance of context in the interpretation of skeletal remains, and the importance of forensic anthropological knowledge during search and recovery of human remains, and site interpretation.

Time: 9:20 – 9:40
Title: The Importance of Context and Analysis during the Recovery of Human Remains.
Author: Christian Crowder (Toronto)
Abstract: In some jurisdictions, human remains from outdoor crime scenes are recovered by one specialist and examined by another. This approach treats the grave and the remains as separate entities and their analysis and interpretation as distinct processes that have nothing to contribute to one another. Complete knowledge of the body-grave relationship is important for proper interpretation of the scene, and preventing potential errors or difficulties in analysis of the remains. This case report presents a complex crime scene in which the buried remains endured multiple disturbances from the time of deposition to recovery. Carnivore scavenging partially disinterred the remains; however, the pattern of elements present and missing was odd, suggesting selective removal of elements. Undergarments demonstrated advanced decomposition that would not be expected in remains that had been buried between one to two years. Soil testing and law enforcement questioning discovered that a corrosive had been used to destroy evidence. As a result of the preliminary evaluation of trace and biological evidence at the crime scene, law enforcement was better able to focus their interrogation of the suspects, leading to a quick confession. This case demonstrates the necessity of involving the forensic specialist in all stages of body recovery and analysis.

Time: 9:40 – 10:00
Title: Archaeology and Policing.
Author: Greg Olson (York Regional Police)
Abstract: Since the beginning of time, the criminal element has been inventing ways to disguise its crimes. It has been the role of police agencies around the world to investigate crimes by deduction and now by way of science. One such science is that of archaeology, the science of antiquities; one which investigates the histories of peoples by the remains of earlier periods. Badly mismanaged scenes have placed great pressure on law enforcement agencies to develop expertise in the area of human remains; location, identification and removal. The principles of archaeology have a logical application to the area of police work and the diverse scenes processed by officers. The York Regional Police have formed the first Archaeological Forensic Recovery Team in Canada, a team comprised entirely of police officers. The officers involved in the team are trained in archaeological methods along with osteology, entomology and forensic anthropology. The team members successfully blend investigative and evidence handling skills with forensic science to create a unique "hybrid" criminal investigator. This approach has been used by the team at homicide scenes, robberies, sexual assault cases and other types of crime sites that require a systematic grid search.

Time: 10:30 – 10:50
Title: The Use of Archaeological Techniques in Underwater Crime Scene Investigation.
Author: Stephen Henkel (Toronto Police Marine Unit)
Abstract: The purpose of this paper is to outline the use of underwater archaeological techniques in the investigation of underwater crime scenes and body recovery missions. Topics covered include: an introduction to the Toronto Police Underwater Recovery Team, the importance of proper documentation of underwater scenes and complete recovery of evidence, the use of techniques borrowed from archaeology, the limitations of underwater archaeological techniques in this context (visibility), goals of investigation (recovery & interpretation), future trends (privatization & contracting), roles for archaeologists?

Session: Method and Theory I
Friday, May 9, 2003, MUSC 315.
9:00 am - 11:50 am
Session Chair: William Finlayson (Western)
Papers: 7

Time: 9:00 – 9:20
Title: Useful Archaeological Websites: Developing Web-based Tools and Databases for Archaeological Analysis.
Author: Darren Shaw (Alberta)
Abstract: The web is an excellent medium to present archaeological information, but it is seldom used to its full potential. By integrating databases into Web sites, archaeological, photographic, GIS, and bibliographic data are tied into a coherent system that can be accessed at any time from anywhere in the world. With integrated online databases, a simple mouse click will carry you between data sets to analytical tools in order to answer research questions quickly and easily. In this discussion I will present the online databases and analytical tools developed for the Baikal Archaeology Project, and describe the tools and techniques used to create these online systems.

Time: 9:20 – 9:40
Title: The Draper Site Village Expansion Sequence: 3-D Virtual Modelling and Animations in Archaeological Interpretation.
Authors: William D. Finlayson (Laurier) and Rick Fischer (CMC)
Abstract: The Draper site is a 3 hectare prehistoric Huron village that was uncovered through rescue excavation by Finlayson on contract to the Archaeological Survey of Canada, Canadian Museum of Civilization in 1975 and 1978. Excavations revealed that Draper began as a small village of seven houses on 1.2 hectares of land occupied by about 400 Huron; it expanded 5 times to become a very large village of 37 houses on 3.4 hectares of land occupied be an estimated 2000 people. After more than 25 years, Draper remains one of the most complex Iroquoian villages ever excavated. Over the years, various plans and artist's reconstructions of the village have been used to disseminate information on its complex history. None however, were able to take advantage of the modern technology that is at our disposal today. In 1998, Toronto-based, free-lance computer illustrator Rick Fischer approached Finlayson about using 3-dimensional computer graphics to create a native village; Finlayson suggested the various expansions at the Draper site as the subject for a computer-based reconstruction and animation. This presentation shows the first portion of the animation created by Fisher in consultation with Finlayson. It also presents a new interpretation on the sequence of expansions which was developed as work on the animation proceeded, and demonstrates how the use of 3- D modeling can offer an alternative focus for archaeological interpretation.

Time: 9:40 – 10:00
Title: Methodological Issues in Predictive Modeling.
Author: David Ebert (Winnipeg/Manitoba)
Abstract: This paper reviews two methodological approaches to archaeological predictive models (APM) currently employed in Canada. The first method is the method developed by the Centre for Archaeological Resource Prediction (CARP) at Lakehead University. This method uses a weighted layer approach to building an APM. This approach has met with some successes and some failures in creating effective APMs and it has definite advantages. First, it requires little in the way of external software to the geographic information system software. Second, it is methodologically fairly simple to implement. However, when compared to the second method, logistic regression, it shows some definite methodological flaws. This paper will present a case study, from the Manitoba Model Forest, where the two methodologies were adopted to create environmental APMs. It will review the effectiveness of the two approaches and the weaknesses, and suggest which of the methods are more robust for use in creating APMs.

Time: 10:30 – 10:50
Title: Treatment of Low Potential Areas in Predictive Models used in the Northern Alberta Oil Sands Region.
Author: Tara Bond (Alberta)
Abstract: Increased resource development in the forestry, oil, and gas industries has stimulated archaeological survey over large areas of land. These intense developments have spawned new methods of surveying large areas of land quickly and economically such as predictive modeling. Predictive models attempt to describe trends in archaeological site location and, thereby, estimate areas of high potential. Their success rate will ultimately determine the rescue of archaeological resources. Predictive models are often used as pre-field sampling strategies, as well as a means to justify the disregard of low potential areas. Many of these models rely on GIS, despite its limitations. This has led to these models being used as a tool to digitally represent the experience of an archaeologist, which reinforces regional biases. By reinforcing the regional biases, low potential areas remain uncontested because the models are designed to represent areas where previous sites have been found. This study measures the areas that have been surveyed since 1980 in the Northern Alberta Oil Sands region and shows that low potential areas may be the result of compounding surveying biases with predictive models.

Time: 10:50 – 11:10
Title: From Canadian Oil-fields to Archaeology: Seismic Tomography, a Future Tool of Archaeological Investigation.
Author: Claire Allum (Bowdoin)
Abstract: Geophysicists from the University of Calgary have been working with Canadian and US archaeologists to refine geophysical prospecting techniques, used by the oil and gas industry of Alberta, for archaeological applications. In the search for oil, seismic tomography is used to explore deep subsurface structures. In 2000, 2001, and 2002, researchers produced shallow seismic images of Maya pyramid structures and plaza areas in northwestern Belize demonstrating that, as techniques improve, shallow seismic imaging may be used to locate buried architectural features within mounds or below ground surface beyond the reach of other shallow remote-sensing devices.

Time: 11:10 – 11:30
Title: Developing and Implementing Heritage Management Tools for Industrial Use in Alberta
Authors: Terrance H. Gibson (AWH), Darryl Bereziuk (AWH), Katherine Beames (AWH)
Abstract: Alberta Western Heritage (AWH) has developed a series of historical databases and related terrain-based heritage potential classification models for use by the oil and gas and forest industries in the province of Alberta. These tools are GIS-based, and make use of a variety of "off the shelf" data sources, including digital elevation (DEM) data, hydrology, LandSat 7 imagery and the provincial archaeological site inventory, as well as custom-derived data related to historical occupation of the region. Although in themselves the tools generate interesting information, they only become useful for land managers if they are bundled with an integrative methodology that first standardizes forecasted

ground impacts and then calculates the probability that an historical resources site will be present at locations that exhibit a strong likelihood to be disturbed or destroyed. This unification is provided by AWH's CRIMP (Cultural Resources Impact Management Planning) process, that allows large scale land managers to determine what effect proposed developments will have on known and potential historical resources in a location, what mitigative action must be undertaken, and when in the planning cycle these requirements must be fulfilled. As such, the CRIMP process provides a useful management platform from which industrial personnel can plan their operations in order to minimize potential impact to historical resource sites and reduce associated field survey costs related to regulatory compliance requirements. The CRIMP process is now used by various developers to manage historical resources across over 40 percent of the province. This paper discusses how CRIMP tools are assembled, how they are used and provides examples of where and to what success they have been applied.

Time: 11:30 – 11:50
Title: Correlations between Catastrophic Paleoenvironmental Events and Native Oral Traditions of the Pacific Northwest.
Author: Rick Budhwa (Wet'suwet'en Lands and Resources)
Abstract: The indigenous populations of the Pacific Northwest have consistently maintained that proof of their long occupation in their traditional ethnographic territories is embedded in their oral traditions. Native groups claim that information within their oral traditions is historically accurate. Therefore, one may presume that a comparison between oral traditions and scientifically known prehistoric events would lead to similar interpretations. Past catastrophic environmental events (such as volcanic eruptions, earthquakes, landslides, tsunamis, floods, etc) with discrete, recognizable attributes, may serve as benchmarks for comparison to prehistoric references contained within oral traditions. For the most part, geologists have provided us with a specific range of dates and magnitudes for such events. The historical literature pertaining to such groups (specific to each event) is reviewed for oral traditions that may refer to the event in question. Through the use of qualitative tables, relationships between the geological and archaeological evidence and the event depicted in the oral tradition are shown to exist. Moreover, a 'qualitative' measure is employed in a descriptive fashion, where a distinction is made between clear relationships and less obvious ones. Perhaps such an evaluation of a portion of the indigenous perspective within a western scientific framework may serve as a foundation for further work in this area. Eventually, a combination of the two perspectives may yield a richer, more holistic view of the past.

Session: Gender and Agency in Hunter-Gatherer Archaeology
Friday, May 9, 2003, MUSC 319.
9:00 am – 11:50 am
Organizer: Sarah Bonesteel
Papers: 7

Time: 9:00 – 9:20
Title: Gender Role Flexibility and Social Agency in Early Palaeoeskimo Archaeology.
Author: Sarah Bonesteel (McMaster)
Abstract: Archaeologists have identified a spatial separation of artifacts attributed to women and men's tasks within early Palaeoeskimo structural remains, and have speculated that work areas were also gender separated. A critical examination of site data shows less pronounced patterning in artifact distribution. This suggests the possible flexibility of gender roles and the degree of social agency exercised in early Palaeoeskimo culture, and points to the need for a more developed program of research to evaluate these issues.

Friday: Gender and Agency

Time: 9:20 – 9:40
Title: Lithic Technology, Agency, and the Pre-Dorset: Inferring Changes in Social Organization Through Raw Material Procurement Strategies.
Author: S. Brooke Milne (McMaster)
Abstract: The Sandy Point site, which is an inland Pre-Dorset occupation located on southern Baffin Island, provides a rare example of novice flint working in an archaeological context. The conditions at this site are ideal for novices to learn this skill given the abundance of local chert, the season of occupation, and the availability of subsistence resources in the area. Specially organized task groups came to this site to acquire raw materials and retool. However, the presence of low skill associated with novice knappers further indicates this occupation also served an important social function for the younger members of these groups. This paper describes the Sandy Point lithic assemblage and discusses how the apprenticeship of novice toolmakers was organized within this culture's raw material procurement strategies on southern Baffin Island.

Time: 10:30 – 10:50
Title: Thule Cyborgs and Dorset Chimeras: On the Varieties of Hybrid Agency in Arctic Prehistory.
Author: Peter Whitridge (MUN)
Abstract: Recent archaeological approaches to agency tend to situate the capacity to act in individuals. Although the autonomy of social actors might vary depending on their position and roles within a larger system or field of interacting individuals, such "classic human agents" end at the skin. Actor-network theory offers an alternative model of agency as an effect of much messier, heterogeneous assemblages of human and non-human actors. Agency is distributed across profoundly hybrid networks that consist of concrete things, such as embodied individuals, artifacts, architecture, animals, and topography, as well as less tangible entities, such as ideas, symbols, technical knowledge, memories, and other imaginaries. From this perspective, archaeological investigation of the agencies of women and men, young and old, elite and commoner, must address the ways in which human and non-human participants were differentially enrolled in the larger or smaller hybrid networks on which every actorial project depends. By way of archaeological illustration, significant differences in the morphology of Thule and Dorset actor-networks are inferred, based on the contrasting representations of humans in figurative art, and markedly different technological styles. These differences in turn hold interesting implications for the differential agencies of women and men in the respective cultural contexts

Time: 9:40 – 10:00
Title: Identity and Representation in Northwest Coast Burials.
Author: Meghan Burchell (McMaster)
Abstract: I have applied a contextual analysis to the mortuary data of the Northwest Coast between ca.6000-1000 BP to show that there are visible temporal and spatial patterns relating to the ways males and females are represented in burials. I have collected data from a total of 1082 individuals from 45 burial sites from the north, south and central regions of the coast. I examined variables including: burial mode; position of the body; type of interment and the types of grave goods in relation to gender and age groups. The differences between male and female burials are most reflected by the type of grave good(s) and the frequency and type of interment. Although there is no patterning among the burials from the Northwest Coast as a whole, gender-based difference in mortuary treatment are clearly evident within and between regions when the scale of analysis is reduced.

Time: 11:10 – 11:30
Title: Jomon Clay Figurines in Prehistoric Japan: Rethinking the Interpretations.
Author: Minako Togawa (McGill)
Abstract: Jomon clay figurines, which are human representations, had been produced throughout the Jomon period (13,000-2,300 bp). I will discuss in detail a case of the Kaminabe site, Kumamoto. A large number of clay figurines were recovered from this site for a brief period toward the end of the Jomon period. This paper will attempt to explore the sudden increase of the figurines in the contexts of increasing reliance on cultivation and women's role in this subsistence shift.

Time: 10:50 – 11:10

Title: Engendering Socioeconomy on the British Columbia Plateau: A Study from the Keatley Creek Site.

Author: Natasha Lyons (Parks Canada) and William C. Prentiss (Montana)

Abstract: A revised chronology for the Keatley Creek site on the British Columbia Plateau has brought to light changes in socioeconomic patterns over several millennia of site residence. Site use opens as early as 2800 B.P. with fairly limited occupations of small housepits, and transforms through a sequence of growth and consolidation to an aggregated village around 1700 B.P. Occupation of this village may have been attended by sharp increases in population and changes in social organization and economic pursuits, while its abandonment, occurring ca. 800 B.P., may be related to local catastrophes and/or regional climatic factors. This phase is followed by later smaller-scale reoccupations. In this paper, the Keatley Creek chronology is examined using new stratigraphic data in concordance with floral and faunal evidence. These various lines of data indicate a shift in food preparation contexts around 1350 B.P., potentially associated with resource intensification processes in the broader region. The paper explores some of the gender implications resonant in these lines of data and speculates on processes that may be involved in this shift. The evidence portrays one aspect of the larger socioeconomic processes at work on the Canadian Plateau in the late prehistoric, related to the rise of societal complexity.

Poster Presentations: Outside MUSC 318.
Friday, May 9, 2003, 9:00 am - 5:00pm.

Title: Development of a Spatially Enabled Archaeological Database for the Study of Cultural Adaptation within the Canadian Prairies Ecozone (SCAPE) Project.
Author: Sylvia Nicholson (Brandon)
Abstract: A spatially enabled database has been developed for the SCAPE Project to facilitate the management and (spatial) analysis of archaeological data recovered from sites across the three Prairie Provinces at five different time periods. The database had to meet several criteria: manage large amounts of data; accommodate the spatial and temporal attributes of the data; accept additional modules for data analysis; and reflect the differing regions under study and preferences of the researchers. Further, in order to provide the mapping and spatial analysis functionality of a GIS, the data had to be easily imported into a GIS application. As a result, in addition to recording the taxonomic classification and archaeological grid coordinate of each artifact, the UTM position relative to the local site datum was calculated and stored in the database. In some instances this required that the declination between archaeological grid north and UTM grid north be accounted for by rotating the position of artifacts relative to the local site datum. A simple utility was then created for exporting the attributes of artifacts along with their UTM position to an Excel spreadsheet, Access database, or a Delimited Text file, which could then be easily imported into a GIS program such as ArcView.

Title: Spatial Analysis and Stratigraphy: A Case Study Using GIS at Ginakangeek (GbTh-2).
Authors: Patrick Beauchesne, Andrew Pawlowski, Caitlin Pearce (McMaster)
Abstract: This study examines the organization of time and space at theGinakangeek (GbTh-2) site, located in contemporary Tsimshian Ginakangiik territory on the Northwest Coast of British Columbia. We assess the chronological relationship of the strata between units associated with major features in the north and south sections of the site in order to look at changes in the use of space over time. Over 10,000 artifacts in more than a dozen excavation units are analysed. The complexity of the data lends itself to the use of ArcView 3.2 GIS. ArcView makes it possible to analyse a large dataset, with both spatial and temporal dimensions, to its fullest advantage.

Title: Prehistoric-Historic Fish Weirs and Aboriginal Salmon Fishery Management at Kitwancool Lake.
Author: Paul Prince (Trent)
Abstract: Kitancool Lake and the upper Kitwanga River contain some of the most important salmon spawning habitats in the Skeena River drainage. Department of Fisheries and Oceans salmon escapement figures indicate a drastic decline in fish stocks, the causes of which the Gitanyow Fisheries Program are trying to reverse. This poster will present the trends in local salmon stocks and details of two fish weirs at the outlet of the lake – one prehistoric and one historic – with associated settlements. It will be demonstrated that the archaeological evidence supports the Gitanyow Fisheries' position that salmon stocks were much higher over the long term than DFO figures suggest, and that aboriginal people successfully managed these resources. The implications of evidence of intensive salmon use for understanding settlement history in the region will also be explored.

Title: Identifying and Interpreting Glass Artifacts in Archaeology: Expedient Tool Technology at a Northwest Coast Tsimshian Site.
Authors: Irena Jurakic and Andrew Martindale (McMaster)
Abstract: More than a hundred years after contact with Europeans, the Tsimshian people of the village of Ginakangeek began to make and use tools made from broken glass bottles and jars. This poster presents the microscopic usewear evidence in both experimental samples and artifacts from the Ginakangeek site to demonstrate that these objects were used as expedient tools for cutting and scraping. Why such tools were made seems unclear since they had achieved substantial wealth from the fur trade and possessed a full suite of European-made metal tools. Glass tools may be a reflection of a rejection of ostentation and a return to an aesthetic of frugality as a way of preserving Tsimshian identity in the context of colonization.

Current and Future Directions: Student Perspectives on Canadian Archaeology
Session: Graduate Student Plenary
Friday, May 9, 2003, MUSC 319.
1:30 pm - 5:30 pm

Time: 13:30 – 13:40
Opening Remarks: Farid Rahemtulla (UNBC)

Time: 13:40 – 14:00
Title: Current and Future Directions in Archaeology at McMaster University
Authors: Sarah Bonesteel, S. Brooke Milne, Christine Cluney, Rhonda Bathurst, Meghan Burchell and Peter Bangarth (McMaster)
Abstract: Archaeology at McMaster is characterized by an interest in a diverse range temporal periods, geographic regions, and methodological and theoretical approaches. Although this variety is represented in graduate student research, there are several issues common to all research projects, such as multi-scalar analysis and an interest in variability as represented through individual action. The temporal periods explored in graduate student research range from 6000BP to 1000BP. Geographic regions of research include the Canadian Northwest Coast, the eastern Canadian Arctic, the Oaxaca Highlands of Mexico, and the Caribbean Island of Antigua. Topical interests include paleoparasitology, inter-regional interaction, faunal analysis, mortuary archaeology, gender, and lithic technology. Issues common to more than one research project involve subsistence strategies, settlement patterns, and agency. The methodology involved in these research projects includes fieldwork, lab work, intense examination of previously collected site data, and the use of technological innovations, like GIS. Graduate student research focuses on integrative archaeology by combining macro-scale processualism and micro-scale interpretation in methods of data collection and analysis. This integration, with an emphasis on its multiple scales of inquiry, has shifted the archaeological focus from sites and artifacts to the activities of people. A future direction of graduate student research at McMaster will continue to stress the importance of individuals in the archaeological record and the use of multi-scalar analysis.

Time: 14:00 – 14:20
Title: A Summary of Geoarchaeological Education and Research at the University of New Brunswick.
Authors: Pam Dickinson (UNB Geology), Brent Suttie (UNB Anthropology), Sandy Glidden-Hachey (UNB Anthropology), Alyson Mercer (UNB Anthropology)
Abstract: This paper presents a brief background of interdisciplinary academic programs and archaeological research being conducted by students in the Anthropology and Geology departments at the University of New Brunswick. Three academic programs presently exist: the Leonardo Degree, a joint BA/BSc program; and a MA and PhD program combining Archaeology and Geology through the departments of Anthropology and Geology. The University of New Brunswick Anthropology department is the only institution in the Maritimes offering a graduate degree with an archaeology emphasis. This presentation highlights how the majority of archaeological research within the department has changed from a compartmentalized "discipline" to being interdisciplinary in nature. We present a discussion of some of the research projects that have resulted from a number of interdisciplinary developments within the departments of Anthropology and Geology, such as the founding of the Geoarchaeology Research Group and the Nearshore Research Discussion Symposia; we also discuss some of the issues still to be resolved.

Friday: Graduate Student Plenary

Time: 14:20 -14:40
Title: Multidisciplinarity and Interdisciplinarity in Canadian Archaeology: The View from Graduate Studies in Geoarchaeology.
Author: Elizabeth C. Robertson (Calgary)
Abstract: Due to the diverse and fragmentary nature of the archaeological record, multidisciplinary and interdisciplinary approaches have a long history as key themes in archaeology. However, with the increasing emphasis that academic institutions are currently placing on the importance of research strategies that actively bridge the boundaries between disciplines, these themes have assumed greater prominence for archaeologists. What are the implications of this movement toward an increasing focus on multidisciplinary and interdisciplinary research, particularly for graduate students, who, as the next generation of scholars, are often encouraged to and have a strong interest in undertaking research that explores new directions in archaeology? From the perspective of the University of Calgary's graduate specialization in geoarchaeology, an initiative with strong links to the university's recent creation of an explicitly multidisciplinary earth science program, this paper will discuss some of the opportunities and obstacles that greet graduate students of archaeology who undertake multidisciplinary and interdisciplinary research.

Time: 14:40 – 15:00
Title: Physical Anthropology: the incorporation of new techniques and the refinement of methods.
Author: Jocelyn S. Williams (Calgary)
Abstract: The use of stable isotopes and imaging technology (radiography, micro CT) is becoming increasingly common in osteological analyses. Physical anthropology, like archaeology and many other disciplines, is continually borrowing and adapting methods and technology. As a group, the postgraduate physical anthropology students at the University of Calgary rely on technology from other disciplines (such as stable isotopic analysis, radiography and CT imaging) to develop a greater understanding of the lifeways of past populations, refine methods and investigate changes to the human body with age. Technological analyses are complemented by the incorporation of historical documents, archaeological excavations, forensic techniques and osteological analyses of pathology and trauma. An additional focus in this department is the nutrition and health of modern populations; borrowing and adapting methods from the field of nutrition (anthropometrics, food intake data). Similar to many physical anthropologists, we struggle with the desire to make our work relevant to present populations but also to develop and strengthen our methods. NAGPRA has significantly affected our research, with the majority of us working with populations (past and present) from other countries. However, work in forensics (both teaching and practical) is becoming more common; reflecting a somewhat morbid fascination by the public with death and dying. Our primary tasks for the future are to: develop and test new methods; strengthen existing methods and promote new techniques and technology to a wider audience and demonstrate their utility to understanding both the past and the present.

Time: 15:30 – 15:50
Title: Are Canadian Archaeologists Being Poorly Trained? Characterizing McGill Archaeology.
Author: Jerimy J. Cunningham (McGill)
Abstract: Rather than a single, integrated program of study, archaeology at McGill adopts a self directed and highly individualistic educational model more typical of advanced degree programs in the UK. As a result, student researchers in the department are able to pursue a diverse array of topical, methodological, and theoretical interests by drawing upon research units and ongoing projects located outside of the university. Using my research experiences at McGill and two other Canadian departments as a backdrop, I suggest that the program at McGill offers insight into the current challenges facing Canadian Archaeology and the CAA.

Time: 15:50 – 16:10
Title: Bio-archaeology at the University of Western Ontario.
Author: Adriana Mandich (Western)
Abstract: Bio-archaeology is a study which intertwines the individual threads of human culture, biology and environment into one single strand. At The University of Western Ontario, research by bio-archaeology graduate students is very diverse. A limited overview of research foci range from the analysis of human bone and mortuary contexts in Southwestern Ontario; to the uses of isotopic analysis to determine ancient diet, health, and geographic origins; to the analysis of Paleoindian lithic procurement strategies; to analyzing ethnic identity through Mesoamerican ceramic figurine styles. While extensively varied in geographic, temporal, cultural and artifactual analyses, all graduate bio-archaeology research at The University of Western Ontario, concentrates on enlightening scholars about the entirety of the human experience. As archaeologists within an anthropology department we realize that we are more than scientific technicians and theorists. Emphasis is made on ensuring that while research questions may be highly specific and particular, they must still be able to move beyond their narrow focus, to provide information relevant to all humanity.

Time: 16:10 – 16:30
Title: Taking Stock: The Diversity of Archaeology at the University of Toronto
Authors: Alexandra Sumner, Lisa Anselmi, Joan Banahan, Kevin Gibbs, Trevor Orchard, Carla Parslow, and Julie Ross (Toronto)
Abstract: The University of Toronto has one of the largest archaeology graduate student populations within a four field anthropology department. This lends itself to a broad range of geographical, theoretical, and methodological research. This paper will explore the nature of this diversity and comment on its strengths and weaknesses in the context of current and future directions of archaeology at UofT.

Time: 16:30 – 16:50
Title: One World, So Many Views
Authors: K. Sharp, T. Rawlings, M. St. Denis, K. Taché, E. Nimmo, R. Commisso, V. Castillo, C. Dunk, G. Moore, L. Pasacreta, M. J. Reid, N. Weber, A. Weiser, T. Trost (SFU)
Abstract: It is our opinion that archaeology programs across North America have become highly diversified and specialized in their research, and Simon Fraser University (SFU) is no exception. When discussing the focus of this paper it quickly became apparent that our research covers a wide range of theoretical, methodological, and geographic topics. The first two decades of research in the archaeology department at SFU were characterized by a strong Pacific Northwest Coast focus; however, in the early 1990s graduate research became more diversified. The research conducted by today's graduate student maintains and expands upon this framework. Research topics include subsistence, functionality, gender roles, epidemiology, methodology, social stratification and trade. These topics are explored through such varied (sub)disciplines as zooarchaeology, forensics, palaeoethnobotany, archaeometry, primatology, historic archaeology, ethnoarchaeology and First Nations studies in prehistoric and historic cultures throughout the world. Despite the varied approaches of our students we found there is considerable interest in collaboration and data sharing with one another. Our graduate student body works on building and maintaining an active dialogue between its students through various venues expressly for the exchange of ideas and information.

Time: 16:50 – 17:30
Discussion: Moderated by Peter Bangarth (McMaster)

Session: Archaeology at Port au Choix, Northwestern Newfoundland
Saturday, May 10, 2003, MUSC 308.
9:00 am – 2:30 pm
Session Organizers: M.A.P. Renouf (MUN) and Patricia J. Wells (MUN)
Papers: 10

Session Abstract: Port au Choix, northwestern Newfoundland, was a major focus of occupation for two Amerindian and two Palaeoeskimo cultures. This session presents and summarizes results of some of the many faculty and student research projects that have been carried out at Port au Choix over the past twenty years. The chronological range is 5500 - 800 BP and the cultures covered include Maritime Archaic, Groswater Palaeoeskimo, Dorset Palaeoeskimo and Recent Indian. This sequence of cultural occupations is put in palaeo-environmental context.

Time: 9:00 – 9:20
Title: Seventy-Five Years of Archaeological Research at Port au Choix.
Author: M.A.P. Renouf (MUN)
Abstract: Port au Choix has long been a central place for populations living on the Northern Peninsula of Newfoundland and consequently is archaeological very rich, with a prehistory known to extend between 5500 and 800 years ago. Over the past 75 years several archaeologists have made Port au Choix a focus of their research, each addressing outstanding research problems of their day. This paper introduces the lineage of Port au Choix researchers, and reviews their research objectives and results. Seventy-five years later, what is the future of Port au Choix's past?

Time: 9:20 – 9:40
Title: Environmental Context and Impacts of Prehistoric Occupation at Port au Choix, Northwest Newfoundland.
Authors: Trevor Bell, Joyce Macpherson, M.A.P. Renouf (MUN)
Abstract: Two of the goals of the Port au Choix Archaeology and Landscape History Project are (1) to understand the prehistoric occupation of the region in the context of landscape and climate change, and (2) to examine the potential impact of occupation on the environment, with particular emphasis on vegetation and landscape stability. Together with collaborators we have assembled a diverse data set to study human-environment relationships. The primary data include: pollen, midges, diatoms, charcoal, spores and grain-size from pond sediments; pollen, macro-fossils and charcoal from peat; radiocarbon dates; and archaeological data. Preliminary results suggest a close correspondence between climate and the changing cultural record at Port au Choix, as well as a significant impact on local boreal vegetation and environment by hunter-gatherer groups.

Time: 9:40 – 10:00
Title: A Study of Maritime Archaic Sites from the Strait of Belle Isle and Great Northern Peninsula, Newfoundland and Labrador.
Author: Heather Reid (MUN)
Abstract: This paper summarizes a comparative study of Maritime Archaic habitation sites located in the Strait of Belle Isle and Great Northern Peninsula, dating from 5500 - 3200 BP, and including material from the Gould site (EeBi-42) at Port au Choix. The artifacts associated with these sites all have characteristics affiliated with a southern variant of the Maritime Archaic, believed to have co-existed in Newfoundland and Labrador with a northern variant that dates from 7500 BP - 3500 BP. This paper presents a typology for the Maritime Archaic from this geographic area and time period, primarily consisting of side-notched, expanding based bifaces, non-hafted bifaces, and flake tools. The study also shows that the types of artifacts and lithic raw materials found in these sites do not vary greatly over the geographic area or time period. Furthermore, similarity of artifact type and raw material between these sites and Area 10 of the L'Anse Amour site (EiBf-4) in Labrador, dated to 6435±95 BP (SI-2305), suggests that the southern variant of the Maritime Archaic may have co-existed with the northern variant for some 3000 years.

Time: 10:30 – 10:50
Title: Mobility, Exchange, and Curation as Factors in the Distribution of the Phillip's Garden West Toolkit.
Author: Karen Ryan (Toronto)

Abstract: This paper briefly reviews the attributes and chronological position of the Groswater Phillip's Garden West (PGW) toolkit before focussing on the geographic distribution of these distinctive lithic artefacts. Identified only on the island of Newfoundland, the majority of these exceptionally finely crafted specimens are found at sites within the Port au Choix area, while the remaining artefacts occur (typically as isolated finds) at palaeoeskimo sites throughout the island. The primary goal of this paper is to re-examine the distribution of PGW tools in order to offer an explanation for how and why elements of this toolkit occurred outside the Port au Choix region.

Time: 10:50 – 11:10
Title: An Analysis of Faunal Remains from Two Groswater Palaeoeskimo Sites at Port au Choix.
Author: Patricia J. Wells (MUN)

Abstract: An analysis of faunal material from two Groswater Palaeoeskimo sites, Phillip's Garden East (EeBi-1) and Phillip's Garden West (EeBi-11) on the Point Riche peninsula, Port au Choix, was undertaken to compare the economic activities engaged in by the occupants of the two sites. This is particularly relevant as there are demonstrated morphological differences in the tool types seen at Phillip's Garden West. The results of this analysis demonstrate that the relative frequency of species and the seasonality are similar for both sites, with a primary emphasis on late winter harp seal hunting. Nevertheless, the body part frequency of the seal bones suggests differences in the treatment of this animal at the two sites. A number of suggestions are explored to explain this variation. It is likely that the occupants of the two sites were in contact, and that processing was to some extent cooperative. The absence of cranial elements from Phillip's Garden West suggests special treatment of the seal body that could have an ideological aspect.

Time: 11:10 – 11:30
Title: The Changing Nature and Function of Phillip's Garden: Diachronic Perspectives from a Dorset Palaeoeskimo Site in Port au Choix.
Author: John C. Erwin (MUN)

Abstract: Evidence from Newfoundland's largest Dorset Palaeoeskimo site is used to demonstrate the utility of a diachronic perspective in assessing concepts of site function, spatial patterning, house permanence, and dwelling contemporaneity at large complex archaeological sites. Through the separation of temporal and functional strands of evidence, this study indicates that what appears as noise when viewed synchronically, may be the echo of the changing nature and function of Phillip's Garden over time.

Time: 11:30 – 11:50
Title: Skeletal Age, Stage of Life, and Patterns of Harp Seal Procurement at Phillip's Garden: A New Look at Some Old Bones.
Author: Maribeth S. Murray (Alaska)

Abstract: Without thin-sections of canine teeth to provide estimates of pinniped (seals and walrus) age, skeletal age class data serves as an effective alternative means of interpreting ancient patterns of pinniped selection by human hunters. In this study, phocidae skeletal aging criteria (Stora 2000) are applied to previously described pinniped archaeofauna from a Dorset Palaeoeskimo house (Feature 1) at Phillip's Garden, Port au Choix, Newfoundland. The pinniped remains from Feature 1, originally identified in 1991, are compared to more recently identified archaeofaunas from elsewhere in northwestern Newfoundland and the eastern Arctic, to compare and discover regional differences in Dorset seal procurement activities.

Time: 13:30 – 13:50
Title: The Recent Indian component at the Gould Site, Port au Choix.
Author: Michael Teal
Abstract: Recent Indian material recovered from the Gould site (EeBi-42) in Port au Choix is presented. This information provides new insight into the Cow Head complex (ca. 2000 - 1500 BP), the earliest and least known cultural complex of Newfoundland's Recent Indian period (ca. 2000 - 650 BP). The Gould site reveals a diverse collection of artifacts and several features which add to our knowledge of Cow Head technology, living structures, settlement and subsistence patterns, and cultural interaction. Specifically, Native pottery is introduced into the Cow Head tool assemblage, and evidence of a living structure and the use of cooking pits and is identified. Gould site locational data demonstrates the use of near-coastal locations by Cow Head groups, which are hypothesized by Rowley-Conwy (1990), Holly (1997), and Schwarz (1994) to be optimal for procuring late fall and winter resources. Finally, artifactual and raw material information from the Gould site further illustrates the interaction among prehistoric Native groups throughout Atlantic Canada, and adds tangible new evidence of Recent Indian and Dorset Palaeoeskimo interaction.

Time: 13:50 – 14:10
Title; Palaeoethnobotanical Research at Port au Choix.
Author: Michael Deal (MUN)
Abstract: This paper reviews a decade of palaeoethnobotanical research at Port au Choix. The initial work involved the laboratory analysis of small sediment samples collected by M.A.P. Renouf from three Palaeoeskimo sites. Since 1998, more than 200 samples have been processed from Maritime Archaic and Recent Indian contexts at the Gould site (EeBi-42). From these studies, five different genera (or species) were identified at the Palaeoeskimo sites, while the Gould site has yielded 16 genera (or species) from the Maritime Archaic component and eight from the Recent Indian component. Despite low recovery rates, palaeoethnobotanical sampling of prehistoric sites at Port au Choix has produced useful information on aboriginal plant use, site seasonality, and past site environment.

Time: 14:10 – 14:50
M.A.P. Renouf: Concluding Remarks

Session: Method and Theory II
Saturday, May 10, 2003, MUSC 309.
9:00 am - 11:50 am
Session Chair:
Papers: 7

Time: 9:00 – 9:20
Title: Why Can't Archaeologists Agree on the Origins of Rank Society on the Northwest Coast?
Author: Gary Coupland (Toronto)
Abstract: Although rank society is a fundamental feature of Northwest Coast traditional culture, archaeologists working in the region cannot seem to agree on when the first evidence of rank appears in the archaeological record. Suggested dates for the first appearance of rank range from as early as 5,000 BP to within the last 1,500 years. This paper explores some of the reasons that lay behind this wide discrepancy. It is argued that traditional, static theories of rank society may be an important contributor to the disagreement among Northwest Coast archaeologist. This disagreement will not be resolved until a more dynamic theory of rank is embraced.

Time: 9:20 – 9:40
Title: Modeling Processes of Cultural Change with Archaeological Data.
Author: Jenneth Curtis (Toronto)
Abstract: In this paper I describe the construction of a cultural change model and the expectations derived from it in terms of ceramic data recovered from archaeological sites. As a case study I apply this model in an exploration of the changes taking place across the Middle to Late Woodland transition in south-central Ontario. The model identifies innovation as the basis for change and postulates the communication of innovations via social interaction as the process through which cultures change. Central to this process are Rogers' stages of innovation communication. The cultural change model also incorporates various theories of cultural change proposed in the past as potential stimuli for innovation and as means for interaction. A series of expectations based on this model are evaluated with respect to attribute data recorded for Middle and early Late Woodland ceramic assemblages from the Rice Lake-Trent River Region, Ontario. Both attribute frequency distributions and correspondence analysis are employed to identify patterns of continuity and change in the production of ceramic vessels.

Time: 9:40 – 10:00
Title: Analogy in Archaeology Revisited.
Author: Farid Rahemtulla (UNBC)
Abstract: Analogy is a fundamental part of the interpretive process in archaeology. Over the last few decades there has been a great debate on the role of analogy in archaeology, in which Alison Wylie has provided the clearest philosophical direction. Despite this there has been little discussion on analogical reasoning in archaeological practice. This is a particularly critical situation at a time when the discipline is undergoing profound conceptual shifts towards multivocality and the potential inclusion of analogies drawn from different knowledge bases.

Time: 10:30 – 10:50
Title: Collection and Preparation of Archaeological Materials for Ancient DNA Analysis.
Authors: Dongya Y. Yang (SFU), Alice Storey (SFU) and Kathy Watt (SFU)
Abstract: Contamination is of paramount concern in ancient DNA studies as it can potentially lead to false results. Although a dedicated DNA laboratory can minimize the risk of cross-contamination during the DNA extraction and analysis, it cannot control the contamination incurred by samples prior to delivery to the laboratory. This pre- laboratory contamination creates an immense challenge for ancient DNA work. It requires sophisticated research designs for detection and great efforts for decontamination. In this study, we propose a series of measures for the proper handling of remains intended for ancient DNA analysis during excavation and subsequent processing. In addition, considerations of methods to properly prepare samples of previously excavated archaeological materials for DNA analysis are also discussed.

Time: 10:50 – 11:10
Title: mtDNA analysis of Archaic & Woodland Populations and its implications for Algonquian and Iroquoian Origins.
Author: Grant Karcich (Buffalo)
Abstract: The goal is to find validation for either in-situ development or migration into the Great Lakes during the Archaic and Woodland periods. Objective: Study Algonquian and Iroquoian populations in the past and present. Procedure: Extract & examine ancient mtDNA of Great Lakes populations from 4,000 - 1,500 BP. Analysis: Compare variation of ancient mtDNA vs. modern Native American mtDNA.

Time: 11:10 – 11:30
Title: Identifying Midden Deposits through Modern Plant Assessment.
Author: Rob Commisso (SFU)
Abstract: A series of tests were conducted to determine whether the values of modern plants could be used to detect

past human accumulations of marine fauna. Since marine animal protein is isotopically distinct from naturally accumulated terrestrial nitrogen it was suggested that the respective nitrogen sources for plants might result in a measurable affect. During the tests, plant samples were collected from several Pacific Northwest middens and one high Arctic Thule midden and the isotopic composition of the samples was measured. Control samples were collected off of the middens at each site for comparison. While there was some variation, the average δ15N values of plants growing on midden deposits are higher than the plants growing on the surrounding natural sediments. While seasonality of sampling affected the results and natural fractionation processes may have contributed to some of the observed variation in plant δ15N values, the consistently higher values of the plants growing on middens are considered to be reflective of the 15N enriched marine fauna. Further study is required to understand the possible factors that may have contributed to the variation in the δ15N values as well as the environments and archaeological contexts in which this approach may be applied, however the results demonstrate the feasibility of using modern plant δ15N values in future archaeological applications.

Time: 11:30 – 11:50
Title: Western Canadian Aboriginal Pottery I: Vessels from the Parkland and Forests of Saskatchewan and Southeastern Manitoba.
Author: Mary E. Malainey (Brandon)
Abstract: Partially reconstructed Late Precontact Period pottery will be discussed. Vessels classified as Laurel, Sandy Lake, Selkirk (Pehonan and Clearwater Lake Complexes) and Rainy River (Winnipeg River Complex) were included in the study. Several of the pots were recovered from the Bushfield West site in east-central Saskatchewan and previously examined by Terrance H. Gibson. Several vessels recovered from Wanipigow Lake and Cabin Point sites, near Bissett, Manitoba, were also considered. Vessels were analyzed with respect to size, shape, decoration, use-wear and absorbed lipid residues. Morphological analysis included calculation of vessel metrics and volume estimation using AutoCad ® computer-assisted design software. Former contents of the pots were identified on the basis of the fatty acid composition of residues extracted from the paste using criteria previously developed by the author. Gibson developed a method of assessing Bushfield West vessel function on the basis of rim metrics and carbonized residue accumulations. It will be shown that volume estimation and fatty acid residue analysis of the pottery can further enhance the interpretation of vessel function and site activities.

Session: Challenges and Changes in the Prairie Ecozone: SCAPE 2002
Saturday, May 10, 2003, MUSC 315.
9:00 am - 2:30 pm
Session Chair: Bev Nicholson (Brandon)
Papers: (10)

Session Abstract: The SCAPE Project (Study of Cultural Adaptations in the Prairie Ecozone) has completed its third field season. Our results have shown that precontact aboriginal peoples met the challenges of an ever-changing environment in a proactive manner, making choices that optimized the opportunities available to them. Our preliminary paleoenvironmental reconstructions extend from the late post-glacial period to modern times and indicate some of the dramatic and extended shifts in the environment over the past 10,000 years across the Prairie Ecozone. Similarly, we have clarified the manner and means by which these people have employed the resources of localized areas of high biodiversity to optimize their lifeways while harvesting the resources of adjacent areas characterized by mobile and often unpredictable animal resources in the surrounding plains. This series of papers presents our research results.

Time: 8:40 – 9:00
Title: When Gardening Failed in a New Land: Challenges and Changes.
Authors: B.A. Nicholson (Brandon), Dion Wiseman (Brandon), and Scott Hamilton (Lakehead)
Abstract: The Vickers Focus people are believed to have practiced a lifeway based upon foraging and gardening in the Tiger Hills, a glacial moraine upland in southwestern Manitoba. Vickers Focus society appears to have been more socially complex than the earlier hunter-gatherer groups in the region that relied almost exclusively on bison hunting. There is some evidence to suggest a limited stratification of this early Vickers Focus culture and clear evidence of a widespread exchange network that brought a variety of exotic materials and finely made ceramic vessels into their central site. Other smaller seasonal sites have been identified nearby and these have been interpreted as satellites of the larger Lowton site. These people appeared as immigrants in the area circa A.D. 1400. Sometime in the next century they disappeared from the Tiger Hills and have been identified further west in the Lauder sandhills following an intensive foraging lifeway. There is evidence that they had begun to exploit bison more intensively and this trend is further intensified in the Sanderson site in southeastern Saskatchewan, where a full-fledged bison hunting economy was being followed. The relocation of this group of people and their altered subsistence strategy is now believed to have resulted from a sudden and drastic acceleration in the cooling trend known as the little ice age.

Time: 9:00 – 9:20
Title: Travel Pathways: A GIS Approach.
Author: James Graham (Lakehead)
Abstract: Recent research by the SCAPE project in the Tiger Hills area of southern Manitoba has begun addressing methods to model pre-contact travel and land use within the region. This involves consideration of travel routes through or around some of the major physiographic features of the area, specifically the Tiger Hills and Pembina Trench. These models are being developed using GIS technology. While the research is still at a preliminary stage, it demonstrates how archaeologists can use GIS to ask questions about how people adapted to the physical landscape.

Time: 9:20 – 9:40
Title: Geoarchaeology at the Below Forks Site: Methods for Assessing Landscape Stability.
Authors: Laura Roskowski, Karen Havholm, Alec Aitken, Andrea Freeman, Alwynne Beaudoin, Garry Leonard Running IV (Calgary).
Abstract: The Below Forks site, at the confluence of the North and South Saskatchewan Rivers (referred to as the Forks study area) contains mid-Holocene archaeological materials which are rare in the province. Cultural material is associated with up to 23 thin (< 10 cm) buried soil profiles formed within a two meter thick lateral accretion deposit of the Saskatchewan River. These profiles exhibit black, 1-2 cm thick A-horizons, but lack well-developed pedologic structure. The purpose of this paper is to present results of research conducted to determine the geoarchaeological and paleoenvironmental significance of these buried soil profiles. Similar buried soil profiles associated with archaeological material are widely observed throughout the Forks. Field and laboratory analyses reveal surface soils formed under riparian vegetation extant on the modern landscape bear striking similarity to buried soil profiles associated with archaeological material in active floodplain and older (at least 7900 BP) Holocene terraces. We suggest these soil profiles, formed throughout the Holocene, represent soil formation under conditions similar to the present. Though regional climate fluctuated throughout the Holocene, local environmental conditions within the Forks riparian zone were little affected, arguably allowing riparian resources to remain available, even during drought periods, from the late-Paleo-Indian period to European contact.

Time: 9:40 – 10:00
Title: Glacial Lake Hind and the Folsom Complex.
Authors: Matthew Boyd (Brandon), Garry Leonard Running IV (Wisconsin-Eau Claire), and Karen Havholm (Wisconsin-Eau Claire)
Abstract: Stratigraphic and paleoecologic (palynomorph, macrobotanical) data obtained from a cutbank of the Souris

River in southwestern Manitoba establish some fundamental parameters of Folsom (11,000 - 10,000 BP) land-use in association with a proglacial lake on the Canadian Prairies. By dating the regression of glacial Lake Hind, we observe that Folsom sites are restricted to areas of the Hind basin drained shortly before 10,400 BP. This pattern may therefore record the interception of seasonal resources on recently-drained proglacial lake surfaces. Based on paleovegetation reconstructions, we note that these surfaces were rapidly colonized by emergent and aquatic vegetation following regression, generating a viable resource base for Folsom hunter-gatherers. However, low plant productivity and diversity may have greatly limited the extent to which this locale was exploited, in contrast to non-periglacial regions on the Plains. We also suggest that wetland plant succession during the Pleistocene-Holocene transition was due, at least locally, to climate-forced fluctuations in groundwater levels.

Time: 10:30 – 10:50
Title: Point Types, Radiocarbon Dates, and Stratigraphy: The Opportunities and Challenges Presented by a Deeply Stratified Site in the Cypress Hills.
Author: Gerald A. Oetelaar (Calgary)
Abstract: After three summers of excavation at the deeply stratified Stampede (DjOn-26) site in the Cypress Hills of Alberta, the record of human occupation in the area has become increasingly complex and intriguing. What started as a neat progression in point types from Bitterroot to Oxbow has become a somewhat chaotic assemblage of side- and corner-notched points, often from what appears to be the same cultural occupation. To some extent, the variability in point types reflects the changing stratigraphic profiles as paleosols merge and diverge across the eight by nine metre excavation. Thus, a single occupation in one corner of the pit can become two or three distinct units in the opposite corner. And finally, bone samples submitted for radiocarbon dating have yielded dates in reverse stratigraphic order indicating redeposition of, at least, some cultural material in this very dynamic environment. Despite the many challenges encountered to date, this site promises to offer incredible opportunities for addressing a host of problems in archaeological method and theory.

Time: 10:50 – 11:10
Title: The Pegogamaw Crees and Their Ancestors: History and Archaeology in the Saskatchewan Forks Region.
Author: David Meyer (Saskatchewan)
Abstract: Selkirk archaeological components, dating ca. A.D. 1400-1700, are present throughout the southern boreal forest of Saskatchewan and onto the northern edge of the aspen parklands. Such materials are generally considered to have been produced by ancestral (precontact) Crees and they may be taken to reflect the presence of some members of this cultural group on the fringes of the plains for several generations before the introduction of the fur trade. One historically documented Cree band of central Saskatchewan is the Pegogamaw. During the mid and later decades of the 18th century it is clear that the Pegogamaw occupied those lands centred on the upper Saskatchewan River and the adjacent lower North and South Saskatchewan Rivers. This included the southern edge of the boreal forest in central Saskatchewan, all of the aspen parkland and some of the adjacent grasslands. However, archaeological sites dominated by Selkirk assemblages are found only in the northern part of the latter range, suggestive evidence that these people did not occupy the more southerly sections in precontact times. It appears, therefore, that the southward expansion of Cree activities, through to the edge of the grasslands, occurred with the inception of the fur trade -- and particularly the involvement of Crees, such as the Pegogamaw, in the middleman trade.

Time: 11:10 – 11:30
Title: Eastern Woodland cultural influences on NE Plains and Subarctic: Stimulus Diffusion, Adaptation and Migration.
Author: Scott Hamilton (Lakehead), B.A. Nicholson (Brandon)
Abstract: Over the past 2,000 years, various societies of the Eastern Woodlands have profoundly influenced cultural development in the adjacent eastern Plains and southern Subarctic regions. In part, this involved the diffusion of

cultural traits, raw materials and people from one major biome to another. At issue is whether selective integration of new technologies, and re-orientation of subsistence economies is a standard part of human adaptation to new biotic conditions, or whether 'newcomers' sometimes persisted in using more traditional economies. This question is addressed with reference to ethno-historic documentation and the patterned dispersal and contents of archaeological sites.

Time: 11:30 – 11:50
Title: A Multivariate Statistical Approach to Defining Vegetation Assemblages in the SCAPE Study Area.
Authors: Alwynne Beaudoin (Alberta) and Timothy Panas (Alberta)
Abstract: One component of the SCAPE project focuses on Holocene landscapes and vegetation from the northern plains. Pollen records yield information about past vegetation and, by inference, climate and resources. As of February 24 2003, 253 relevant palaeoenvironmental records have been identified from the SCAPE study area. Of these, 157 records deal with pollen; others focus on diatoms, ostracodes, geochemistry, pigments, or plant macroremains. Raw pollen data are available from 99 records. Multivariate statistical methods, specifically cluster analysis (CA) and discriminant function analysis (DFA), are being used to explore patterns in these data that may be interpretable in terms of vegetation assemblages. Preliminary maps of these inferred assemblages have been generated for the five time slices (9K, 6K, 3K, 1.5K, and 0.5K yr BP) that are the focus of SCAPE. This statistical and GIS approach allows visualization of complex information. Vegetation reconstructions will be integrated with data generated from other components of the project.

Session: Historical Archaeology of Indigenous People
Saturday, May 10, 2003, MUSC 319.
9:00 am – 2:50 pm
Organizer: Andrew Martindale
Papers: 10 + discussant (Susan Jamieson, Trent)

Session Abstract: Historical archaeology is not limited to archaeology in documentary contexts but includes, as Matthew Johnson argues, recognition of the tensions between material and text, history and science, narrative and evolution, and European and Indigenous. This session represents an effort to explore these tensions, their manifestation in archaeological method and theory, and their effect on an understanding of the history of Indigenous communities before and after the arrival of Europeans.

Time: 9:00 – 9:20
Title: Archaeologists and Aboriginals: A Critical Review.
Author: Gregory G. Monks (Manitoba)
Abstract: Archaeologists in Canada, as elsewhere, tend to concentrate their research efforts on either the post-contact archaeological record of North American aboriginal groups or on post-contact European and Asian groups. Little attention is paid to the archaeological record of aboriginal peoples during the proto-contact period, and less is paid to the archaeology of aboriginal peoples during the post-contact period. Data from funding agencies and refereed publications are presented and interpreted from a critical theory perspective. It is argued that Canadian archaeologists, despite their often good intentions, work within a larger social and political agenda that makes invisible both aboriginal peoples and their archaeological record after European contact. This situation is consistent with the approach taken by the federal government to aboriginal peoples since the late nineteenth century.

Saturday: Historical Archaeology

Time: 9:20 – 9:40

Title: Landscapes as Historical Archives for Archaeological Research with Particular Emphasis on the World of the Nitsitapii.

Author: Gerald A. Oetelaar (Calgary)

Abstract: Landscapes are created by people through their experience and engagement with the world around them and through their activities and movements on the ground. In this world, important landmarks serve as mnemonic devices eliciting myths, oral traditions, stories, and songs. From this perspective then, landscapes are not only the natural and cultural features of a region but also the names, oral traditions, and ceremonies, which establish the continuity between ancestral beings, social groups, resources, and the land. As such, the landscape becomes the archive for the group, one that includes not only myths but also codes of ethical conduct toward the land, the people and the resources. This paper illustrates how such oral traditions and place names can inform archaeological and historical research with particular emphasis on the archive of the Nitsitapii or Blackfoot.

Time: 9:40 – 10:00

Title: From Ostentation to Frugality: Material Dynamics in the Post-contact Era.

Author: Andrew Martindale (McMaster)

Abstract: Material culture in post-contact Tsimshian archaeological sites follows a trend from an early fluorescence of items of wealth and display to a later abundance of utilitarian objects and reused material and the reemergence of traditional technologies. This can be partly explained as a correlate of the increased availability of mass-produced European-source objects in Tsimshian territory. However these trends also correlate with political reorganizations in Tsimshian society in the 19th century recorded in the Tsimshian oral record. In the early 19th century, Tsimshian leaders gained power through control of the supply of traded furs, creating an association between European wealth items and political stature. By the late 19th century, the regional political structure had collapsed and the role of leaders shifted from controlling powerful trade networks to maintaining social cohesion. Part of this role was to reconstruct traditional values, one of which was being efficient with resources. The return of groundstone tools and the emergence of broken glass tools in archaeological assemblages may be part of this effort.

Time: 10:30 – 10:50

Title: Four Historic Burials from Early 19th Century Manitoba.

Authors: K. Brownlee, B. Hewitt, D. White, C. Meiklejohn, P. Badertscher, C. Willmott, L. Larcombe, and R.D. Hoppa (Manitoba)

Abstract: In 1999, Manitoba Historic Resources Branch recovered the remains of two individuals near Dauphin, Manitoba, one from the east bank of Drifting River and other at Ochre Beach, on Dauphin Lake. Pine Creek First Nation was contacted and an elder performed ceremonies before removal of the burials. Two previously excavated burials, in 1938 west of Dauphin Lake and in 1966 from the Red Deer River near the Saskatchewan border, were also analyzed as they fell in the same period. Preliminary analysis suggests that these burials, recovered over a span of 75 years, represent a single cultural group. Further, the four individuals may be related. Analysis of the associated artifacts suggests that these are the graves of Ojibwa or Ottawa individuals who lived in the western interior between 1808 and 1818. Artifacts, including a variety of silver ornaments, wampum, smoking pipes, clamshells, vermilion and copper tinkling cones, suggest consistent cultural and mortuary practices. Ancient DNA analysis will be used to determine if there is a genetic relationship between them. This research, blending anthropological and historical methods with oral history and ethnohistoric evidence, makes an important contribution to the history of this period in west central Manitoba.

Time: 10:50 – 11:10
Title: Archaeological Correlates of Contact Period Dynamics in Gwaii Haanas National Park Reserve/Haida Heritage Site (Southern Queen Charlotte Islands, British Columbia).
Author: Trevor J. Orchard (Toronto)
Abstract: The European contact period in Haida Gwaii (Queen Charlotte Islands, British Columbia), as elsewhere in North America, was a dynamic period of changing economic adaptation and changing settlement patterns among indigenous peoples. European interest in obtaining sea otter furs sparked the intensive, but relatively short-lived, maritime fur trade, which in turn led to a shift in Haida economic focus. The potential for gain in wealth and prestige available during the maritime fur trade introduced further changes, while introduced diseases and increased warfare resulted in population declines. The changes in economy, settlement strategy, and social organization that resulted from these factors are represented in archaeological assemblages that date to the late pre-contact through contact periods. This paper will explore these changes in the context of recent and ongoing research in Gwaii Haanas, and will present some of the preliminary results of this research.

Time: 11:10 – 11:30
Title: Oral Traditions and Indigenous Archaeology: The Wet'suwet'en Cultural Heritage Initiative.
Author: Rick Budhwa (Wet'suwet'en Lands and Resources)
Abstract: As with other disciplines, archaeology today is changing to keep current with society's demands. As a result of recent court cases in both Canada and the United States, First Nations groups are gaining significant influence over how anthropologists and archaeologists study their culture and history. This is an important stage in our development as a discipline, as archaeologists become accountable for their work to any involved First Nations groups. Indigenous peoples have their own history and perceptions of their place in the world, recorded and transmitted in the form of oral traditions. These oral traditions often record the epistemology of a group, in addition to their interactions with past peoples and the environment. They are as real and accepted by traditional First Nations peoples as science is to the modern western scientific community. However, it can be argued that their past is not really "theirs", in the sense that their history now has been recreated by outsiders with little or no knowledge of indigenous culture – or worse, with no desire to acquire or understand indigenous culture. As a result, the Wet'suwet'en have taken a proactive approach to managing their own archaeological concerns, and their basis for territorial management of cultural heritage lies in their oral traditions. The Wet'suwet'en Territorial Stewardship Plan is unique as it is based on the vision of Wet'suwet'en chiefs and clan membership. It is currently capturing the attention of industry and government alike. They are one of the only First Nations that are presently involved in such management practices.

Time: 11:30 – 11:50
Title: The North-South Copper Axis.
Author: William A. Fox (Canadian Museum of Civilization)
Abstract: Two native copper axes were recovered by looters of an Historic Neutral Iroquoian cemetery near Niagara Falls, Ontario, during the early 20th century. These specimens are described and compared to similar axes/celts and plates from Mississippian sites in the southeastern United States. Archaeological constructs and ethnographic information from the latter region are considered in an attempt to understand the cultural significance of these unique Ontario artifacts.

Time: 13:30 - 13:50
Title: Aboriginal Trail Networks of the Central Interior Plateau, BC: Present Day Links to Prehistoric Thoroughfares.
Author: Amanda Marshall (Ecofor)
Abstract: In the Fort St. James Forest District, in the central interior of northern British Columbia, increased awareness of aboriginal heritage trails has rendered a lack of concurrence with regards to the interpretations of trails and the collaborative management of them. During the pre-contact and historic periods in BC, trails formed the travel and

communication networks of a region; allowing people to travel, trade, interact, and access hunting, fishing, trapping and gathering areas. Over the years, trail features have been commonly missed or overlooked by archaeologists, and those that have been discovered have been under-rated in terms of significance. This has resulted in tensions between archaeologists, first nations, licensees, public, and government. Tensions are strained with regards to the designation of trails as being aboriginal vs. European, even though in many cases aboriginal oral historical knowledge exists for most. Even though the importance of trails is now recognized by the provincial government in terms of their role in aboriginal hunter-gatherer societies, the emphasis is placed on importance and attention is only paid to historical trails of high significance, or prehistoric trails pre-dating 1846. This paper will look at management options with regards to trails, ground truthing techniques and recording, as well as an accurate description of trails and trail typologies is discussed.

Time: 13:50 – 14:10
Title: Historical Archaeology of the Six Nations of the Grand River.
Author: Gary Warrick (Laurier)
Abstract: Davisville was a Mohawk/ Mississauga community located on the Grand River, Brantford, Ontario and occupied in the early nineteenth century. Its archaeological remains have been located and are represented by three cabin sites. One of these cabin sites, Davisville 2, was partially excavated between 2000 and 2002. This paper examines the archaeological patterns from this cabin site and compares them to archaeological signatures from other Six Nations sites of the early nineteenth century. It will be argued that Six Nations people resisted the colonial efforts of the British government's "civilization policy", even in communities that had adopted Christianity, participated in the fur trade and were surrounded by British settlement. Cultural continuity in such things as regional settlement patterns, farming and subsistence practices, and diet demonstrate remarkable conservatism with pre-European patterns. Historical documents written by British colonial administrators paint a different picture of Six Nations life in the early nineteenth century. The discrepancy between the historical and archaeological records is discussed in light of a British desire to acquire Six Nations land in the nineteenth century.

Time: 14:10 – 14:30
Title: Weaving Bead, String, Belt: Archaeology of and as Contact.
Author: Neal Ferris (McMaster)
Abstract: With an increasing willingness to be more theoretically reflective, the anthropological history, or ethnohistory, of Native contact with Europeans has begun to allow that archaeological research may have something significant to contribute to an understanding of responses to contact. And while past culture history approaches in archaeology tended to offer little more than a parroting of the dependency interpretations offered by conventional historical discussions of Native response to European contact, more recent work has been able to build on the broader theoretical reflexive critique in archaeology to offer much more complex and nuanced examinations of the interaction between Native and non-Native peoples. There is a significant, even primary role for an archaeology of the contact era that applies the interpretive advances of the discipline, and recognises the subjectivities of history, to reach beyond the surface story in written records and trait lists, to elucidate the "silences" of history, and offer narratives of those events that are not blinded by the past deterministic assumptions of dependency, assimilation, and interpreting historically specific behaviour through the filter of subsequent centuries of colonial impact on Native North American communities.

Time: 14:30 – 14:50
Discussant: Susan Jamieson (Trent)

Open Workshop Session: Rethinking Artifact Curation: Current Perspectives and Future Options
Thursday May 8, 2003, KTH B122.
1:30 – 3:00 pm
Convenor: Kathryn Denning (McMaster)
Format: Open discussion.

Abstract: This open workshop is meant to provide space and opportunity for informal discussion of issues in artifact custody and storage, sensitive curation education programs, possibilities and plans for artifact repositories that honour First Nations concerns, collaborative exhibit design, and related topics. All are welcome to attend. Speakers contributing their viewpoints will include: Rick Budhwa & Andrew George Jr. & Richard Wright, Dawn Martin-Hill, Gayle McIntyre, Kris Nahrgang, Sheryl Smith, and Penny Young.

Open Workshop Session: Linking Archaeology and the Environment in Archaeological Heritage Management
Thursday May 8, 2003, MUSC 203.
1:30 – 3:30 pm
Convenor: International Committee on Archaeological Heritage Management (ICAHM)
Format: Open discussion.

Abstract: The UNESCO World Heritage Convention considers "*that the deterioration or disappearance of any item of the cultural or natural heritage constitutes a harmful impoverishment of the heritage of all the nations of the world*" and as such recognises that there is a harmonious relationship between both. Archaeology, probably more than any other heritage discipline, explores this relationship through such studies as settlement patterns, agricultural techniques, or land occupation.

Bound to the land for the resources it provides, people adapted to the land to in return leave a permanent cultural mark, a trace of their presence, tangible and intangible. They named and defined their landscape to reflect their needs and their values. This ongoing relationship ends once the site is abandoned. The physical landscape, however, continues to evoke the memory of the past relationship and continues to evolve. A balance still exists in the memory associated with the site through oral history, traditional knowledge or even site interpretation. The same environment that explains the site could present major conservation issues.

Hence, when translated into archaeological heritage management, understanding this relationship becomes highly instructive in understanding the nature of what is identified as heritage, in identifying its values, in defining the historical as well as environmental context of the resource, and finally in determining the pressures at work in conservation.

How does the environment influence human settlement and human history? How do these locations and events affect present preservation and interpretation of archaeological resources? When natural events exert pressure on the archaeological resource, how do we mitigate the effects without compromising the integrity of the environment?

The first part of this session will explore the relationship between human communities and nature. The second, will look at cultural heritage and nature's impact on it.

I Cultural heritage, natural heritage
a) reading the land

b) rediscovering past landscapes
c) human groups transform their environment
d) human groups adapt to their environment

II Muskrats, wind and water
a) environmental factors affect the cultural resource
b) species at risk on archaeological sites
c) archaeological activities and environmental impacts
d) carrying capacity for cultural and natural resources

Open Workshop Session: Heritage Legislation Committee
Friday May 8, 2003, MUSC 203.
10:00 am – 12:00 pm
Convenor: CAA Heritage Legislation Committee
Format: Open discussion.

Abstract: The mandate of the Heritage Legislation and Policy Committee is to work toward attaining better (any) legislated protection for archaeological sites on federal lands. The HLC would like to mobilize the membership behind this effort, so to that end the HCL is hosting a round table discussion and workshop in which participants clarify the nature and extent of the problem, the desirable solutions to the problems, and means by which those solutions can be effected. Ideally, academics, consulting archaeologists, civil service archaeologists, aboriginal archaeologists, students, bureaucrats and avocational archaeologists would be involved. The discussion will occur in advance of the HCL meeting (Friday 6 - 9 pm, MUSC 203).

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- Timmins Martelle Heritage Consultants

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