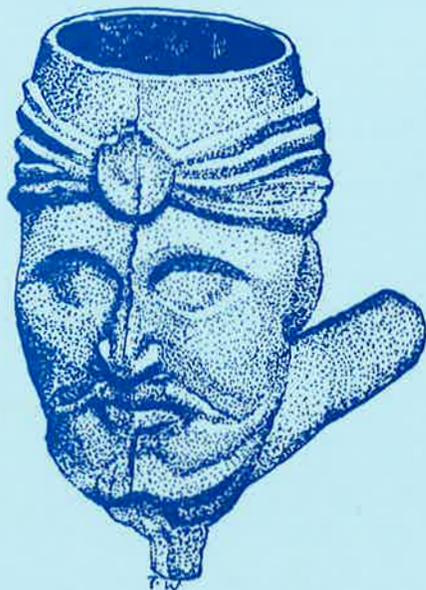


*ABSTRACTS
RESUMES*

**Canadian Archaeological Association
Association Canadienne d'Archéologie**



19th Annual Meeting



Toronto

APRIL 24 - 27 1986

ASSOCIATION CANADIENNE D'ARCHÉOLOGIE

CANADIAN ARCHAEOLOGICAL ASSOCIATION

19th Annual Meeting
19eme Reunion Annuelle

23 - 27 April 1986

Toronto

ABSTRACTS

RESUMÉES

Nick Adams
Cataraqui Archaeological Research Foundation

A5

"NATIVE SETTLEMENT AT FORT FRONTENAC IN THE LATE SEVENTEENTH AND EARLY EIGHTEENTH CENTURIES"

Cartographic and documentary sources provide abundant evidence that an Iroquois village grew up in the immediate vicinity of Fort Frontenac as a direct result of the French presence in the area.

This paper examines some of these sources in an attempt to assess the village in relation to the Fort and to prevailing Iroquois settlement patterns in the late seventeenth and early eighteenth centuries.

Robert Allen and John Leslie
Indian and Northern Affairs

B1

"FROM WARRIORS TO WARDS: NATIVE PEOPLES IN CANADA AND THE INDIAN DEPARTMENT; AN HISTORICAL RELATIONSHIP 1755-1860"

From 1755, with the appointment of William Johnson, a formal, Imperial and centralized Indian Department was created to administer and direct the affairs of Native peoples on behalf of the British Crown. For the first sixty years, British Indian policy in North America was directed at courting, organizing and preserving "His Majesty's Indian Allies" in the royal interest. The formulation and implementation of policy was focussed solely on military considerations, and the "warriors" played a decisive role in preserving and defending Canada against the aggressive and expansive ambitions of the United States. By the 1820's, the long-established, indeed entrenched, symbiotic relationship between Native people and the British Crown had altered.

In 1830, Imperial authorities embarked formally on a new policy course: Indian warriors were to become self-supporting farmers and, in the process, made over in the image of Europeans. Between 1828 and 1856, a series of five royal commissions and one Parliamentary inquiry developed, modified and reiterated an Indian policy based upon the reserve and treaty systems. Experimental Indian communities were established in Upper Canada at Sarnia and Coldwater, and in Lower Canada on the Riviere Verte. In the four decades prior to Confederation, Imperial officials became increasingly impatient with the slow advancement of "Indian civilization" and frequently condemned the Indian Department for its ineffectiveness and inefficiency. By 1860, the British had had enough and formally turned over the formulation and financing of Indian policy to the Province of Canada,

which in turn became a responsibility of Crown Canada in 1867.

Native peoples and the Crown have retained an enduring relationship, unbroken in spite of the changing and fluctuating attitudes and direction of the British and, more recently, Canadian Indian Policy.

Kenneth M. Ames
Portland State University

B3

"PREHISTORIC SUBSISTENCE INTENSIFICATION IN PRINCE RUPERT HARBOUR"

The intensification of salmon fishing plays a critical theoretical role in all models of the development of complex societies on the Northwest Coast. Measuring intensification requires measuring two dimensions of diet: breadth and diversity. Artifactual and faunal remains from prehistoric sites in Price Rupert Harbour indicate the diet was very diverse. While it is extremely difficult to measure breadth, preliminary analysis suggests dietary breadth was much greater than most current models predict. The data also clearly show that subsistence practices combined exploitation of most microenvironments immediately adjacent to residential sites as well as distant resources.

Dean Anderson
Michigan State University

B1

"MERCHANDISE FOR THE PAYS D'EN HAUT: 18TH CENTURY TRADE GOODS AND INDIAN PEOPLES OF THE UPPER GREAT LAKES"

Material data represent an important source of information for the study of historic period Indian peoples. Such data are available not only in the archaeological record but can be obtained from documentary sources as well. This paper examines a body of material drawn from the Montreal Merchants' Records, a collection of 18th century account books. Attention is focused on records of sales and of trade goods and supplies to traders destined for various outposts in the upper Great Lakes between 1720 and 1760. The assumption underlying this analysis is expressed by the position taken by Ray (1974), Morantz (1980), Ray and Freeman (1978) and others that specific Indian demands played an important role in the trade and that Europeans were sensitive and responsive to those demands. Consequently, it is suggested that the kinds and quantities of trade goods recorded in these account books represent a material dimension of historic period Indian societies. This material record can offer insights on the behaviour of the Indian peoples who created the demand

for, and eventually obtained, those commodities.

Marie-France Archambault et Hélène Gauvin
Université du Québec à Montréal

A3

"ANALYSES ARCHÉOLOGIQUES DU SITE DbEj-11 (SITE LAVOIE): 2 TYPES
D'OCCUPATIONS ARCHAÏQUES SUR LA HAUTE CÔTE NORD DU SAINT-LAURENT"

DbEj-11, site stratifié de la région de Grandes-Bergeronnes (Tadoussac) a fait l'objet de quatre (4) saisons de fouilles. L'analyse des témoins façonnés indique l'existence de deux ensembles d'occupations archaïques associés à 2 couches distinctes (I et III).

L'ensemble le plus ancien, daté de 5000 ans avant aujourd'hui, est caractérisé par l'importance relative du polissage de la pierre par rapport au façonnage par éclatement, par l'emploi des matières premières se prêtant au polissage (schistes et roches sédimentaires), par un outillage pauvre et essentiellement caractérisé par quelques grandes pointes, couteaux, pesées à filet et polissoirs. Associé à de nombreux vestiges fauniques, particulièrement des os de mammifères marins, l'outillage de cette couche suggère une occupation axée vers le dépeçage des animaux et l'exploitation des ressources marines. La couche la plus récente (I), malheureusement détruite par les labours, est cependant riche en témoins façonnés. On y note l'importance des matières premières allochtones (cherts variés, calcédoine, quartzites de Mistassini) et du façonnage par éclatement dominant le polissage de la pierre. Les outils témoignent d'une variété d'activités plus étendue que ceux associés à la couche III (petites pointes, couteaux, grattoirs, perçoirs, haches ou herminettes, ciseaux à bois). Ces deux couches reflètent-elles des populations humaines de traditions différentes ayant occupé la Pointe-à-John à l'Archaïque; ou s'agit-il deux types d'occupations différentes, d'une même tradition archaïque, liées peut-être à une modification des ressources environnementales entre 5000 et 3 à 4000 ans avant aujourd'hui?

Charles D. Arnold
Prince of Wales Northern Heritage Centre

B2

"THE POSITION OF THE SAUNATUK SITE IN MACKENZIE INUIT PREHISTORY"

Salvage excavations at the Saunatuk site on Eskimo Lakes have yielded evidence of a fifteenth century occupation by MacKenzie Inuit. A wide diversity of faunal resources was utilized, and as a result a diverse artifact assemblage was recovered. Analysis of the artifacts is hampered by weaknesses with the cultural-historical framework currently used for archaeological interpretation in the

Mackenzie Inuit area. Suggestions for strengthening the interpretive framework are offered.

Tom Arnold
University of Calgary

B4

"A CLUSTER ANALYSIS ON SEVERAL PALEOINDIAN COMPLEXES AND ITS CULTURAL IMPLICATIONS"

This paper reports the results of a cluster analysis done on five tool categories taken from the Grant Lake Site (Beverly Unit), the Caribou Lake Complex and the Lakehead Complex. Based on projectile point morphology, previous researchers have commented on the similarity between these three complexes. Similarities have also been noted between these three complexes and material from the Plains, principally Agate Basin. The results indicate that there is little basis for these statements of similarity and that only one of these three complexes shows possible affinity with Agate Basin.

R.P. Beukens
Isotrace Laboratory, University of Toronto

B4

"HIGH PRECISION ¹⁴C DATES OF THE L'ANSE AUX MEADOWS SITE"

Four small twigs from the L'Anse aux Meadows Viking site were dated at the ISOTRACE radiocarbon dating facility at the University of Toronto. Because of the rapidly changing ¹⁴C production that occurred around 1000 BP, previously obtained low precision dates have been difficult to interpret. To obtain a meaningful interpretation a precision of 50 years or better was required.

Robert A. Birmingham
State Historical Society of Wisconsin

B1

"THE CONTACT PERIOD AT LA POINTE: HISTORY AND ARCHAEOLOGY"

La Pointe was the name the French used to refer to the Apostle Islands/Chequamegon Bay area of western Lake Superior, and specifically to Madeline Island. La Pointe became a major fur trade center under the French during the latter part of the 17th century, and remained so during the subsequent British and American occupations. This paper summarizes ethnohistorical and archaeological research at two major contact period sites located on Madeline Island: The Marina and Cadotte sites. These sites were occupied by both Euro-Americans and Indians (refugee Huron-Petun (?) and Chippewa) and,

between the two, virtually the entire contact period (circa 1660s-1854) is represented by archaeological deposits. The paper focuses on Native American adaptations to the natural and changing social environments of the area.

David W. Black, McMaster University

A4

H. Louise Hale, New Brunswick Department of Tourism, Recreation and Heritage

"A RETROSPECTIVE ACCOUNT OF SOME ABORIGINAL SHELL MIDDENS IN THE QUODDY REGION"

During the summer of 1869, S.F. Baird, an associate of the U.S. National Museum, examined a number of shell middens in the Quoddy region of southern New Brunswick. Several of these sites have recently been re-surveyed and tested by the Archaeology Branch, New Brunswick Department of Tourism, Recreation and Heritage. This paper reviews Baird's observations, and briefly describes the sites as they are today.

L. Bond, K. Matsui and George Burns

A4

Department of Chemistry, University of Toronto

"GENERAL AND SITE-SPECIFIC SALINIZATION PROCESSES IN THE NILE VALLEY"

Since the completion of the Aswan High Dam, the extent of irrigation in the Nile Valley has increased significantly. The water flow from irrigated fields and its subsequent evaporation results in the deposition of salts in unirrigated lands. Additionally, a large amount of salt is known to be leached from the irrigated fields into the Nile. Data on the variation in salt content of the Nile are being examined to determine whether there is an overall salinization or desalinization of the Nile Valley.

Archaeological monuments which are surrounded by irrigated fields are specially sensitive to salinization processes.^{1,2} The impact of extensive salinization on major Egyptian archaeological monuments is being assessed by site-specific computer-assisted studies of salt and water movement. Results from these studies will identify the best methods of alleviating the local salinization in these areas.

1. T.C. Billard, G. Burns, Nature 285,5767(1980), 654.
2. T.C. Billard, G. Burns, K.M. Wilson-Yang, J. Amer. Res. Center Egypt, 19(1982), 111.

Jack Brink and Stuart J. Baldwin
Archaeological Survey of Alberta

C3

"THE HIGHWOOD BURIAL SITE AND THOUGHTS ON A PELICAN LAKE BURIAL COMPLEX"

Evidence, though still frustratingly scarce, is accumulating in support of a highly patterned burial system on the Northern Plains during the Late Middle Prehistoric period. Characteristic traits of this burial system include secondary bundle interments in excavated pits, often involving several individuals, with red ochre placed over the bones, and associated grave goods including native copper, drilled marine shell beads, perforated bison or elk teeth, perforated grizzly bear claws, eagle claws, projectile points, and other lithic artifacts. Burials fitting this pattern are currently known from Alberta, Saskatchewan, and Montana; are dated to the time period between 3000 and 2000 years B.P.; and appear to be affiliated with the markers of Pelican Lake projectile points. This paper presents the results of a recent excavation of a Pelican Lake burial from the plains of Alberta and makes an initial attempt at a description of the Pelican Lake burial complex.

Donald A. Brown
Historic Consultant, Toronto

C4

"CITIES RESPOND TO URBAN ARCHAEOLOGY"

Within the last seven years, North American cities have formally started taking an active responsibility toward their below-grade resources. Policy statements have been drafted by a number of cities, with Canada well represented. Archaeologists are being employed by a number of cities to monitor and inter-relate with developers. Archaeological consultants are being hired to conduct feasibility studies and create inventories of archaeological resources within city boundaries so that developers will be aware of mitigation requirements. This shift from provincial to municipal responsibility concerning the monitoring and mitigation of archaeological sites will have dramatic impact on the archaeological community in a number of forms: the creation of new jobs; a greater emphasis on professionalism (high quality, rapidly produced reports) while meeting the needs of the developer/client; a shift in emphasis from pure research to client-specific goals; and a need for greater dissemination of the knowledge gained from public and private money expended - not simply for academics or government agencies, but for the public who will demand to see and understand the results of their money.

A.P. Buchner and M.P. Cassady-Zywina
Manitoba Culture, Heritage and Recreation

A8

"LATE WOODLAND HORTICULTURE AT THE LOCKPORT SITE, MANITOBA"

The prehistoric sequence of the Lockport Site on the Red River of southern Manitoba is described and discussed with special emphasis on the Late Woodland (Blackduck) component. Evidence is presented to support the contention that for approximately three centuries these people pursued an horticultural way of life centred upon the growing of maize. This is the first firm evidence of prehistoric horticulture in western Canada.

Burley, David
University of Saskatchewan

B7

"CONCEPTS OF SPACE: ARCHAEOLOGICAL CORRELATES OF 19TH CENTURY METIS ETHNICITY"

Traditionally viewed as the hybrid offspring of white Euro-American males and native females, the Hivernant Metis developed a distinctive and identifiable cultural tradition through the early part of the 19th century. Although subject to extreme acculturative pressures resulting from missionization, the near extinction of the bison and the failure of the 1869 and 1885 insurrections, they nevertheless maintained a core of cultural traits and perceptions that are distinctively Metis. It is argued that archaeological correlates for a recognition and understanding of this ethnicity can be found in concepts and use of space. The paper provides archaeological and folk architectural data in support of this position.

Linda Burnard
University of British Columbia

B3

"TOWARD THE ARCHAEOLOGICAL IDENTIFICATION OF HUNTER-GATHERER TERRITORIALITY"

Territoriality has been defined as the more or less exclusive use of space through overt defense or communication. This paper explores the relationship of such boundary maintenance strategies with the archaeological record. Data from two hunting and gathering societies, one highly territorial, the other with a flexible non-exclusive land-use strategy, are compared and contrasted. The Tsimshian-Gitksan of the Skeena River region of British Columbia and the Chilcotin

peoples of the B.C. Interior Plateau provide the focus of this discussion.

Gaye Burton
Simon Fraser University

C2

"ARCHITECTURAL REMAINS ON THE CENTRAL COAST OF BRITISH COLUMBIA"

This paper presents selected aspects of a field study designed to initiate a regional conservation program for aboriginal wooden feature sites. The paper concentrates on historic and proto-historic architectural remains and discusses the scientific, ethnic and public significance of these sites. New documenting formats and other recommendations derived as part of an initial step in conserving the resource are outlined. Evidence from sites documented this year is presented and some preliminary interpretations of the architectural features, using ethnographic and other data, discussed.

Charles Cleland
Michigan State University

B1

"THE FUR TRADE": AN ANTHROPOLOGICAL PERSPECTIVE"

For over one hundred years the writing of historians and anthropologists interested in the interaction between Euro-Americans and Indians in eastern North America has been organized around the idea that the fur trade exerted a traumatic, pervasive, and overwhelming impact on Indian people. "The Fur Trade" in effect has become a paradigm with implicit assumptions about cultural dynamics. Without denying the importance of the fur trade in understanding the course of both Indian and Euro-American history this paper questions many of our ideas about "The Fur Trade" in light of recent ethnographic, archaeological and ethnohistorical data.

K. Connor-Learn
University of Alberta

A6

"MORE THAN MEETS THE EYE: TECHNICAL ANALYSES IN THE CLASSIFICATION OF CERAMICS"

Ceramics have been traditionally classified and assigned to types according to stylistic attributes and variations. At times the use of stylistic attributes may be overly subjective and lead to errors in classification. The author proposes that classification of ceramics should incorporate information about the technical aspects of

ceramics, such as mineralogy, chemical content and the construction techniques used by potters. A case example involving a sample of pottery from Black Fox Island, Lac La Biche, Alberta will be used to discuss the utility of technical analyses.

Thor Conway B5
Ontario Ministry of Citizenship and Culture, Heritage Branch

"ALGONKIAN SETTLEMENT PATTERNS IN THE UPPER GREAT LAKES 1600-1900"

During the past twelve years, several Algonkian bands located in northeastern Ontario have been the subject of multi-disciplinary studies. These groups are located north of Lake Huron from present day Sault Ste. Marie to the Ontario/Quebec border. By combining archaeological, linguistic, geneological, archival, ethnographic and oral history research, it becomes obvious that many bands remained in place throughout the historic era. Information from two case studies will be presented.

Gary Coupland B3
University of British Columbia

"THE PREHISTORIC SEQUENCE AT KITSELAS CANYON: EVIDENCE FOR SOCIAL AND ECONOMIC CHANGE"

This paper presents a five-phase sequence for Kitselas Canyon, covering the crucial period between 5000 and 2000 B.P. Against this chronological framework, a study of social and economic change is presented. It is argued, contrary to an existing model, that cultural change at Kitselas Canyon was a result of in situ developments related to changes in resource diversity, niche width, and nature of production.

R.G. Cresswell B4
Isotrace Laboratory, University of Toronto
"RADIOCARBON DATING OF SMALL (<10g.) IRON SAMPLES"

The extremely low ratio of radiogenic to stable carbon (10^{-12}) dictates extreme care during sample preparation of small samples, and/or low carbon materials, if contamination is to be minimized. A comparison of the use of large samples (van der Merwe and Stuiver, 1968) to small ones (Sayre et al., 1982) outlines this problem for iron; especially for low carbon wrought iron.

In an attempt to resolve these problems, a flow through iron

combustion and CO₂ trapping line is being constructed to provide CO₂ for cracking to 'carbon black' to be analysed in the IsoTrace accelerator mass spectrometer. Background and sample measurements will be compared with previous methods and results from a less well controlled set-up (Cresswell, 1985).

References:

van der Merwe, N.J. and Stuiver, M., 1968. *Anthropol.* 9 48-53.

Sayre, E.V. et al., 1982. in Currie, L.A. (ed), *Nucl. Chem. Dating Tech.* ACS Symp. Series 176 441-451.

Cresswell, R.G., 1985. CHEHA Ann. Meeting, Ottawa, 1985 (Abstr.)

K.C.A. Dawson
Lakehead University

C1

"NORTHWESTERN ONTARIO AND THE EARLY CONTACT PERIOD: THE NORTHERN OJIBWA OF 1615 - 1715"

Examination of the historical and archaeological records of Northwestern Ontario suggest that the geographic and cultural basis for distinct tribal or band identities, a central feature in agrarian areas, is not applicable. The ebb and flow of groups in the area was a long standing characteristic, thus the fluid ways were not undermined by contact, nor is there evidence for a near total abandonment of large portions of the area. Using the territorial ethnicity approach in conjunction with 222 culturally identified sites across the area the contact period ethnic population is seen as comprised of cognate groups, 75% of which can be identified as Northern Ojibwa.

Heather Devine
Archaeological Survey of Alberta

C2

"GETTING ARCHAEOLOGY INTO THE SCHOOL - THE ALBERTA APPROACH"

Accountability has reared its ugly head in the cloistered world of the Canadian archaeologist. Taxpayers are demanding that government spend public money on programs that offer tangible benefits to the average citizen. In response to this public pressure agencies such as the Archaeological Survey of Alberta are attempting to foster understanding and support through the initiation of public and school-based educational programming. Many initiatives are doomed to

failure, however, because of one key factor - an ignorance of the workings of the educational system.

This paper will discuss the implementation of a school-based education program with special emphasis on the following concerns:

- recruitment of an educational consultant
- setting program goals and objectives
- strategy for establishing a working relationship with the Department of Education
- developing user-friendly curriculum materials

Frank Dieterman
University of Toronto

B4

"HISTORY OF TREE-RING COUNTING IN 18TH AND 19TH CENTURY NORTH AMERICA"

While the 20th century history of dendrochronological dating is well known from the work of Douglass and others, their work represents the culmination of a series of naturalistic observations that extended back over 2000 years. This paper briefly summarizes the pre-Douglass tree-ring counting history (in respect to archaeology) in Northeastern North America beginning with Thomas Jefferson's Notes on Virginia. A representative series of 19th century observations is discussed.

Christine Dodd
Ontario Ministry of Citizenship and Culture, Heritage Branch

A1

"IROQUOIAN LONGHOUSE STUDIES"

Longhouse post moulds and features were recognized first around the turn of the century. Since then, especially within the last twenty years, there has been an ever increasing emphasis placed on the recovery of community pattern data. The plethora of longhouse information accumulated has led to numerous interpretations regarding Iroquoian development and socio-economic and political organization. This paper will trace the history of longhouse archaeology, review current research, and suggest potential areas for future studies.

Dena Doroszenko
University of Toronto

B6

"RESIDENTIAL PATTERNING ON THE SOUTHWEST CAMPUS OF THE UNIVERSITY OF TORONTO"

Founded by the British in 1791 and incorporated in 1834, Toronto has passed through a number of stages in which socio-economic and political conditions helped to shape the pattern of settlement and land use of this large urban center. Current work in historical archaeology has demonstrated that land use can be discerned by examining the patterning of artifactual material within a historic property. Archaeological fieldwork began in the fall of 1985 on the University of Toronto campus. The research design for the Southwest Campus Project examines the effects of industrialization on the spatial distribution of land use activities and socio-economic groups over time. Observations concerning changes in urban consumer behavior and land developer's behavior in nineteenth century Toronto will also be addressed.

C.J. Ellis and D. Brian Deller
University of Waterloo, McGill University

A2

"SOME GREAT LAKES FLUTED POINT TYPES" REVISITED

Detailed analyses and comparisons of published and unpublished data on fluted point samples from Ontario and Michigan are presented. The data base includes material from the Barnes, Gainey, Crowfield, Fisher, Parkhill and Thedford II sites as well as several smaller sites and locations. The analyses strongly suggest the presence of at least three fluted point types defined by the recurrent clustering of certain attribute states and restricted variable ranges. Trends in these defining characteristics and distributional data suggest the types are monitoring temporal differences.

R. Farquhar, L. Pavlish, University of Toronto
D. McNeill, Geonics Corporation, Mississauga, Ontario

C4

"EM-31 SURVEY OF COL. STREET'S MILL, STREETSVILLE, ONTARIO"

An Electromagnetic Survey (EM-31) was carried out on the property deeded to Col. T. Smith early in the 19th century. The purpose of the survey was to locate subsurface remains of the Street Mill (circa 1820) and those of latter buildings. The survey grid had a station spacing of one meter and a line spacing of two and one-half meters. Approximately 2000 readings were taken. The results showed clear

subsurface contrast which will prove useful for the Streetsville Historical Society's Developing Culture Inventory Programme.

R.M. Farquhar, V. Vatali
University of Toronto

A6

**"LEAD ISOTOPE ANALYSIS AS A TOOL FOR PROVENANCE DETERMINATION:
APPLICATION TO THE LOCATION OF MINERAL SOURCES OF ARTIFACTS FROM
TUNISIA"**

Lead isotope ratios have proven to be reliable "finger-prints" for differentiating potential ancient lead ore deposit resources exploited by early metalsmiths. The method is not affected by metallurgical processing of the ores, and requires less than one milligram of the sample for an analysis. The application that we describe is to punic and roman lead and lead-rich artifacts (e.g., bronzes) from Carthage and neighboring settlements in Tunisia. As the historical records suggest, roman artifacts contain lead mined mainly in Britain and Spain. But a comparison of artifacts with ore lead from Tunisia suggests that local sources may have been exploited. A Spanish ore source is identifiable among the punic artifacts. The isotopic data for ancient old world lead mineral deposits is not yet as large as it should be, and at least one of the sources of punic lead does not isotopically match any of the measured deposits.

David Faux
Mohawk College

A5

**"THE RELATIONSHIP BETWEEN SOCIAL STATUS, ACCULTURATION AND SIX NATIONS
-- WHITE MISCEGENATION PRIOR TO 1800"**

The Six Nations Iroquois of New York had contacts with the French and Dutch from the early 1600's, and with the English and Palatine Germans from the early 1700's. Economic and political forces led to the formation of close relationships, involving traders and government agents of these White communities, with the leading families among the Six Nations. The contacts between the two racial-ethnic groups also had a sexual dimension which translated into casual liaisons and enduring marital relationships. The present study examines the process of miscegenation by exploring the documented instances of White -- Six Nations marriages in the 200 year interval between 1600 and 1800. The evidence presented in this report indicates that the majority of these marriages occurred between White men who were members of a frontier entrepreneurial class possessing family connections with the colonial power structure, with Six Nations women whose families were members of the hereditary sachem or war chief

(i.e., high social status) elements within their communities. Acculturation also appears to have exerted an influence on the probabilities of a marital union occurring between individuals of the two groups. Specifically, the Six Nations families whose members were participants in these marriages tended to be those whose formal education and material culture most closely approximated that of the Euro-American populace. The available data also suggest that both the White husbands and the close relatives (e.g., brother) of the Six Nations wife were able to enhance their economic and/or political position by virtue of their family connections in the other community. Some relatively infrequent cross cultural marriages (Black men with Six Nations women; Six Nations men with White women) are also considered in the context of social status and acculturation.

Rodolphe Fecteau
York University

A1

"LATE WOODLAND CULTIVATED PLANT RECORD IN SOUTHERN ONTARIO"

Five cultivated plants (corn, beans, squash, sunflower and tobacco) are known from ethnographic and archaeological sources to have been grown prehistorically in southern Ontario.

The time period during which cultigens were introduced into and spread throughout southern Ontario extends from A.D. 600 to A.D. 1650.

On the basis of available evidence the two earliest sites date to around A.D. 600 and have only corn. They are Princess Point sites located along the Grand River in the south and in the city of Hamilton at the western end of Lake Ontario. Tobacco appears for the first time in the 8th century on a Princess Point site also in the Grand River area. Beans, squash and sunflower are all introduced by Younger Tradition people in the southwest during the 11th century. The diffusion of cultivated plants appears to be from the south, to the east and later north.

Neal Ferris
York University

B1

"CULTURE CHANGE AND CHANGES TO MATERIAL CULTURE: ARCHAEOLOGY AND HISTORY OF THE SOUTHWESTERN ONTARIO OJIBWA, 1790-1860"

By 1800 the Ojibwa of southwestern Ontario had experienced close to two hundred years of indirect contact with Europeans. Archaeological and historical evidence indicates that European

manufactured items had become commonplace within Ojibwa material culture by this time. Traditional academic interpretations of these data have argued that such changes in material culture reflect a process of acculturation and a growing dependency on Europeans by Native groups. However, the Ojibwa of southwestern Ontario appear to have simply adopted European manufactured goods into a Native way of life, as these items made traditional subsistence practises much more efficient. Changes to economic and political structures did not begin amongst this group until the 1820's and 30's, when hunting territories were reduced in size due to arriving White settlers and subsequent massive clearing of land for agricultural purposes; and concurrently by the establishment of reserves and the active encouragement by Crown authorities and denominational missionaries for Native groups to abandon nomadic practises of hunting, fishing and gathering for a sedentary, agricultural-based lifestyle. Archaeological and historical evidence documenting cultural change for this Native group to the mid-nineteenth century will be examined here, outlining a complex process of culture change. Concepts such as acculturation and dependency occurring from material culture change will be considered in light of the data presented.

William R. Fitzgerald
McGill University

A7

"GLASS BEADS AND NEUTRAL IROQUOIAN POLITICAL ORGANIZATION"

Advances in the absolute dating of 16th and 17th century glass bead successions provide the basis necessary for cultural reconstructions that require precise chronological control.

A theory that is becoming entrenched in the archaeological literature is that the 17th century Neutral Iroquoians of southern Ontario had evolved into a chiefdom. A review of the purported archaeological and historical evidence for this, in light of chronological refinements, will indicate such a contention is completely groundless.

Bryan C. Gordon
National Museum of Man

A4

"NADLAK - AN ARCTIC HUNTERS' CAMP"

Bryan C. Gordon (Archaeological Survey of Canada, National Museum of Man, Ottawa) and a crew of eight videotaped the digging and rebuilding

of a Late Prehistoric Copper Inuit house at Nadlak, a 15-house hunting camp on the Burnside River SW of Bathurst Inlet, N.W.T. Its midriver location peninsula jutting from the direction of the calving grounds make it an obvious fall watercrossing for moving Bathurst herds. The remains of some 100,000 caribou occur in 3-5 cultural levels across the island, with House 2 having ca. 30,000 bones in three levels and a Level 1 open-domed roof built with 4,400 antlers. Between hundreds of stone floor slabs, levels 1-3 had copper knives, rivets and a fish hook; bone arrowheads, needle case and fishing spoon; antler harpoons, handles and lancehead; pottery, and much birchbark including 20-25 cm diameter basket rim. Four other stone houses with 7 m diameter antler rings and attached sunken meat caches are on the island spine, with 10 tentings further east.

Nadlak was occupied in the Little Ice Age of 1500-1800 A.D. when little evidence exists for coastal hunting. As its hunters may have adjusted entirely to the Barrenlands, where the herds migrate despite unfavourable climate, it is not surprising that it had Thule harpoon heads, typical Western Arctic Thule pottery, paper birch from Chipeywan and Yellowknife Indian territories, copper tools, possible spruce sleds, a dog's skull and unusual beehive roofs. Cooper Inuit connection SE with Akilineq on the Thelon River, a similar dialect to Caribou Inuit, and a surface stone winter houses suggest Nadlak hunters may have moved permanently southeast to become the Caribou Inuit. In the early 20th Century, Stefansson, Steensby, Birket-Smith and Jenness mentioned Central Arctic Inuit belief in an inland origin. They may have inadvertently alluded to camps like Nadlak, abandoned a century or two earlier.

Elizabeth Graham
Wilfrid Laurier University

B1

"CONTACT AGENTS AND COMPETITION IN THE INDIAN RESERVE COMMUNITIES OF SOUTHWESTERN ONTARIO: 1830-1860"

Early missionary work in the 1820's among the Ojibwa of southern Ontario was characterized by cooperation between missionaries and Indians and the development of integrated mission communities. After 1830, several denominations and government agents entered the field. This, combined with the setting and shrinking of reserve boundaries, led to the emergence of competition and conflict between various groups within communities, with the different missions and contact agents, or even with the rejection of Christianity, as their focus.

This paper will examine these processes of competition and conflict in the Indian Reserve communities of St. Clair, Walpole

Island, Muncey, Oneida and Moraviantown between 1830 and 1860.

Sheila Greaves
University of British Columbia

A2

"THE FUNCTIONAL SIGNIFICANCE OF MICROBLADES"

This paper presents the theoretical foundation and the methodological approach for an investigation into the functional significance of microblades through an identification of the nature and distribution of activities associated with microlithic technology in the British Columbia interior plateau. Preliminary data and analyses from a study of lithic tools and debitage in nine sites will be discussed.

Rainer Grun
McMaster University

B4

"ESR - DATING"

Although it has been known since 1967 that electron spin resonance (ESR) spectroscopy can be used to date geological materials, it was not until 1975 that attention was once again drawn to this method by researchers who applied it to the dating of speleothemes. Since then, ESR has been successfully applied to various field problems in geology and archaeology. The potential of the dating method along with its specific problems will be discussed.

David Guldenzopf
State University of New York at Albany

A5

"THE MOHAWK IROQUOIS IN EVOLUTIONARY PERSPECTIVE"

It seems readily apparent that neo-evolutionists' unilinear theories are too schematic, especially when dealing with colonized populations. Recent world systems research emphasizes the effects of colonial expansion on the "micro-populations" in colonized areas. This approach is multilinear, but too often the relationships are reduced to simple material flows. Proper conceptualization of the impact of colonial expansion should stress the transformation of pre-existing economic institutions and forms of political dominance in specific historical cases. The development of internal economic inequalities among the Mohawk living in the Mohawk River valley prior to the Revolutionary War are demonstrated through analysis of documentary and archaeological data. The relationship between

economic inequalities and the differential advantage that competing factions had in determining local policy is explored. These data allow a critical evaluation of Morgan's concept of Military Democracy as a transitional phase in the development of stratified relations among the Iroquois.

D.M. Gurfinkel
University of Toronto

A2

"THE DETECTION OF BLOOD RESIDUE ON STONE IMPLEMENTS: AN APPROACH TO THE PROBLEM"

Recent publications (notably Loy (1983) *Science* 220: 1269-71) have suggested that blood residues can be detected on stone tool surfaces. This discovery along with the possibility of determining the species of origin of the blood has many implications and has generated considerable interest and excitement in the archaeological community. This prompted the author, under the auspices of the Collegium Archaeometricum of the University of Toronto, to begin an independent investigation to first confirm the 'survivability' of blood residues and if present to determine the degree and nature of any blood protein alteration. The problem of confirming survivability is being approached in two ways. Firstly a protocol is being developed to detect the presence of blood as unambiguously as possible. The main features of this protocol will be described. Secondly experiments that simulate the burial conditions of stone implements are being set up. These simulations also permit the assessment of possible protein alteration. Preliminary results of these experiments will be described.

Peter Hamalainen
Toronto Board of Education

B6

"THE 1985 TORONTO BOARD OF EDUCATION ARCHAEOLOGICAL SURVEY OF TORONTO"

During the summer and fall of 1985, the Toronto Board of Education undertook two separate, but related, surveys of archaeological resources extant within the limits of the City of Toronto. One concentrated on downtown Toronto and the other on selected Toronto Board of Education properties. As part of the survey, two of the sites were test excavated.

The paper will discuss the results of the surveys and the test excavations. Emphasis will be placed on the methodology used and the problems encountered in carrying out an archaeological survey within a complex urban environment.

R.G.V. Hancock, University of Toronto
M.D. Grympas, Mount Sinai Hospital

A8

"BONE ANALYSIS AND ANCIENT DIET"

The quest for human dietary information from the elemental composition of old bones has generated much interest for many years. Some problems of diagenesis have been observed and published. Instead of trying to establish an elemental concentration baseline for archaeological bone, we have attempted to establish a baseline for modern bone, and have then compared this data with similar data from both mummy and normally buried bones. The diagenetic effects obtained from bones buried in soil will probably preclude their use in ancient dietary studies.

Christopher C. Hanks, Prince of Wales Northern Heritage Centre A3
David Pokotylo, University of British Columbia

"THE 1985 DRUM LAKE SURVEY: A STEP INTO THE MACKENZIE MOUNTAINS"

Survey and excavation at Drum Lake was conducted as part of a training programme for Native students from the Mackenzie Valley. The project is jointly sponsored by the Prince of Wales Northern Heritage Centre and the Northern Oil and Gas Action Plan (NOGAP).

The research utilized a direct historic approach. Survey was designed to locate sites from the contemporary, historic and prehistoric periods. This was done in order to examine variability in the geographic distribution of occupations over time. Results from our preliminary sample indicate horizontal spacial separation between the historic and prehistoric periods. Further, at least three of the prehistoric sites are vertically stratified by volcanic ash.

This paper will examine diachronic and synchronic variability in the lithic assemblage on the basis of flake morphology and type of lithic raw material. Horizontal and vertical separation of components has allowed these preliminary comparisons to be made between the proto-historic, late historic, and the early prehistoric periods. This will form the basis for more detailed lithic analysis which will follow the 1986 field season.

Margaret G. Hanna
Saskatchewan Museum of Natural History

A6

"A RE-EXAMINATION OF CERAMICS FROM THE AVONLEA SITE, EaNg-1"

This paper reassesses the surface-recovered vessel found in 1956 at the Avonlea site and compares it with two vessels found during excavations in 1984. The comparison includes decorative attributes, paste characteristics, construction techniques, and mineralogy. Minor differences exist during the vessels, but otherwise they are similar in shape, surface finish, and technology.

David Hems
Manitoba Culture, Heritage and Recreation

C4

"RESEARCH AT THE SOURISMOUTH FORTS: A SUMMARY"

Over the past five years the Manitoba Historic Resources Branch has funded research at a series of fur trade posts in southwest Manitoba. Underlying this research has been the supposition that these fur trade sites represent groups of interrelated communities. The investigative activities during this period consisted of first locating the region's fur trade sites, which were then mapped, surface collected, shovel tested or surveyed with a proton magnetometer to varying degrees. These activities formed the basis for test excavations at two selected site locations. The results of these test excavations suggest that the posts varied with company affiliation. They ranged from small wooden structures containing a cellar to central compounds containing the major fort buildings enclosed in a stockade. Evidence also suggests that these compounds were surrounded by an extensive plantation that contained the gardens, outbuildings and Indian encampments.

Clifford Hickey
University of Alberta

B7

"RESOURCES, TERRITORY AND EXCHANGE RELATIONS: THE RISE AND FALL OF ETHNIC DIFFERENTIATION AMONG THE COPPER INUIT"

In 1854, the Copper Inuit of the western Canadian Arctic gained access to a large depot of goods abandoned by the British Royal Navy during their search for the Northwest Passage. Between that time and the sustained presence of Europeans in the area, including ethnographers in the 1900's, aspects of territoriality, resource use and exchange were altered. These changes had further effects on

social organization which led to the development of internal ethnic differentiation. The paper to be presented focuses upon an examination of the flexibility of Eskimo social organization and those processes which may be attributed to culture change and ethnic group emergence.

A. Hinshelwood
Old and In the Way Archaeology Consultants

C1

"WALTER'S D-6: SALVAGE EXCAVATIONS OF THE LAKEHEAD COMPLEX BILOSKI SITE (DcJh-9)"

Salvage excavations of the late-palaeo Biloski Site, CdJh-9, near Thunder Bay are discussed. Emphasis is placed on both the pitfalls of salvage work and on methods for analysis of lithic recoveries. The high incidence of incomplete and unmodified bifaces led to the development of formalistic stagewise reduction typology. Sorting of bifaces by means of this typology allowed the identification of different reduction activities, particularly between the main Minong beach terrace (245m, a.s.l.), and a lower bar feature (237m, a.s.l.). It is submitted that refinement of the present typology, and of concomitant debitage analysis would benefit from replication experimentation, inter-site comparison within the Lakehead complex, and further excavation at Biloski.

D. Geordi Howe, Kunghit Haida Culture History Project
Sandra K. Zacharias, Kunghit Haida Culture History Project
Steven R. Acheson, British Columbia Heritage Conservation Branch

B3

"KUNGHIT HAIDA CULTURE HISTORY PROJECT: RESULTS OF 1985 TEST EXCAVATIONS IN THE SOUTH MORESBY AREA OF THE QUEEN CHARLOTTE ISLANDS, B.C."

In 1985, test excavations were made of a stratified random sample of nine sites chosen from the 89 habitation sites recorded during our 1984 systematic survey of the south Moresby area on the Queen Charlotte Islands. These included open-air shell middens, rock shelters, and cave sites. Artifact and faunal analyses indicate the presence of a well-developed maritime subsistence pattern with some regional and temporal variations in the exploitation of pelagic and anadromous resources.

Jeff Hunston
Yukon Heritage Branch

B2

"MACKENZIE INUIT PREHISTORY AS SEEN FROM THE WASHOUT SITE (NjVi-2),
HERSCHEL ISLAND, YUKON NORTH COAST"

Anthropological thought has traditionally held that the Inuit group known as the Kirgirktarugmiut who occupied the Yukon North Coast and Herschel Island were one of the five major aboriginal sub-groups of the Mackenzie Inuit. In recent years this view has been questioned by McGhee and Arnold based on their reading of the historic record as well as the absence of important Mackenzie Inuit cultural traits (ie. cruciform winter house) in this area. Investigations by B. Yorga at the Washout site (NjVi-2) in 1977 and 1978 documented two prehistoric phases of Thule occupation of Herschel Island. House 1 at Washout represented an early Thule (950 - 1250 A.D.) occupation and his House 2 represented a later occupation dating to 1150 - 1350 A.D.). The analysis of the Washout site collections indicated to Yorga that the roots of Mackenzie Inuit culture lay within the Western Thule tradition and not with an ancient inland riverine-oriented Inuit culture as postulated by McGhee on the basis of his excavations at Kittigazuit and other sites in the Mackenzie River Delta. The particulars of this development remained elusive due to the absence of a firmly documented cultural sequence linking the Washout Western Thule occupations with later early historical Kigirktarugmiut.

Emergency rescue excavations were carried out this past summer on an additional 2 rapidly eroding Western Thule house features at the Washout site. Fieldwork was conducted under the North Coast Heritage Research and Protection Project as funded under the federal Northern Oil and Gas Action Programme (NOGAP). Primary attention was focused on the remaining rear portion of House 3 and a testing of House 4. A collection of about 230 artifacts, a quantity of faunal remains, and additional information on house construction was obtained. Nuwuk and Nunagiak closed-socketed harpoon heads as well as square-shouldered knobby-tanged antler arrowpoints place the occupation of the houses in the Nunagiak phase of Western Thule, as known from Point Barrow and locations east along the Beaufort Coast as far as Coronation Gulf. House 3 is contemporaneous with Yorga's House 2; giving further support for the idea that Nunagiak phase population movement and cultural influences from northwestern Alaska may have provided the basis for further cultural development which led to the distinctive Kigirktarugmiut cultural pattern.

James Hunter
Huron Museum Ltd.

A6

"SOME CONSIDERATIONS ON THE PRODUCTION OF HURON CERAMIC WARES"

This paper deals with a number of specific issues related to Huron ceramic technology, including a spectographic analysis of trace elements of local clay samples compared with similar analysis of ceramic sherds from Sainte-Marie (BeGx-1) and two other Huron sites, some information on firing and hardness testing, and some observations on Huron production methods based on these tests. The physical properties of local clays with those of the 300 year old samples are virtually identical. The properties of the fired ceramics suggest that the Huron fired pottery for periods of from several days to several weeks, barely achieving firing temperatures of 1000° F.

Dean Jacobs
Walpole Island Research Centre

A5

"INDIAN COMMUNITY-BASED RESEARCH - A CO-OPERATIVE APPROACH"

The Walpole Island Indian Reserve has established a co-operative community-based research program in the areas of land claims, environmental monitoring and socio-economic development. A research group has been formed composed of the Walpole Island Band, University of Windsor faculty members and other specialist consultants.

This paper will describe Walpole Island's innovative research program called Nin.da.waab.jig with particular attention given to Indian land claims research. Parallels will be drawn between land claims research and archaeology study. Previously successful cooperative research projects of the Walpole Island community will be examined to illustrate how a similar approach could be employed in the area of archaeology. Issues of methodologies, capabilities and participation will be addressed from a community perspective. The paper will conclude with an analysis of the potential benefits of archaeologists and Indian communities working together.

Malcolm A. James
Western Region, Parks Canada

A2

**"LITHIC RESOURCE EXPLOITATION AND IMPORTATION IN JASPER NATIONAL PARK,
ALBERTA"**

Archaeological researchers in the upper reaches of the Athabaska River Valley have noted many technological parallels between assemblages there and assemblages in the plains and foothills to the east and south. Cultural affiliations have been proposed between the aboriginal inhabitants of the upper Athabaska Valley and the Plains cultures. While strong interaction links are apparent in the historic and prehistoric records, it is an oversimplification to assume, on the basis of extant archaeological evidence, that the valley was occupied only seasonally or intermittently by small transient bands of Plains Indians.

This paper will address these previously held assumptions in light of newer, more extensive archaeological surveys of the valley and also with specific reference to economically significant lithic resources and lithic resource exploitation patterns. Typological associations and the importation of specific lithic raw material types suggests strong interaction links with the Interior Plateau culture area of British Columbia.

Scarlett E. Janusas
Historical Consultant, Toronto

B6

"TORONTO'S EFFORTS TO PROTECT ITS ARCHAEOLOGICAL RESOURCES"

Urban archaeology is often still considered an oddity, but as more attention is brought to bear on the 'archaeology of cities', the awareness of the potential and often imminent destruction of archaeological sites is gaining alarming recognition. Few Canadian cities have made the necessary efforts to inventory their cities archaeological resources, much less to monitor, assess or otherwise mitigate these quickly disappearing resources.

This paper details some of the efforts of the Toronto Historical Board in response to dwindling urban archaeological resources within the City of Toronto, and also serves to comment on the problems encountered. It is expected that this paper may generate more comments to a situation that every major Canadian city will encounter.

H.W. Jarvis
University of Toronto

A6

"A COMPARISON BY INAA OF KEFFER SITE HURON POTTERY AND SOME LOCAL CLAY SAMPLES"

Samples of Keffer Site Huron pottery and samples of clay taken right on site were subjected to INAA trace element analysis, at the University of Toronto SLOWPOKE facility, to determine if the clay was used in the manufacture of the pottery. Results of this research will be discussed.

Olive R. Jones
Parks Canada, Ottawa

C4

"ENGLISH WINE BOTTLES: ANATOMY OF A RESEARCH PROJECT"

Using complete, often dated, examples from museum, private and archaeological collections a chronology of finish styles, body forms and manufacturing techniques was established for cylindrical English "wine" bottles, ca. 1740 to 1850. Measurements were used to develop dating and volume estimator formulas. This paper summarizes the original research design, modifications made in response to difficulties encountered and the final results.

P.J. Julig
University of Toronto

C1

"VARIABILITY IN LITHIC ASSEMBLAGES AT CUMMINS SITE, THUNDER BAY"

The Cummins site was originally designated a Plano period quarry/workshop site; however, recent investigations indicate human use throughout most of Preceramic times, with a variety of activities represented in lithic assemblages and cultural features. Data from three localities will be considered; a stratified portion of the main Minong beach, a lower Minong terrace, and a bog edge occupation. Evidence for technological continuity and change, and for other human activities at the sampled locations will be discussed.

P.J. Julig, L.A. Pavlish and R.G.V. Hancock
University of Toronto

A2

"NAA OF LITHIC MATERIALS FROM CUMMINS SITE THUNDER BAY: DETERMINATION OF RAW MATERIAL SOURCES"

Brown semitranslucent chert-like lithics of unknown geological source occur in small quantities at Cummins, both in Archaic and Plano contexts. End scrapers of such material were considered to be of Hudson Bay Lowland cherts; however, other possibilities tested in this study included Knife River Flint (North Dakota sources) and local Lake Superior agates. Samples of small flakes from various archaeological/geological facies at Cummins, and known sources of HBL, KRF and Lake Superior Agate were analyzed for 12 short half-life elements using the SLOWPOKE reactor facility of University of Toronto. The results of these analyses will be reported, as will the implications regarding regional social interaction and raw material selection.

David L. Keenlyside
National Museum of Man

A4

"SITE DEPOSITION AND EROSION: EXAMPLES FROM RECENT MARITIMES STUDIES"

Recent archaeological research at prehistoric sites in Prince Edward Island and New Brunswick provides interesting case examples of the kinds of depositional and erosional processes typically found in the Maritimes region. In New Brunswick, sites first examined in 1970 were re-examined to determine the effects of 15 years of natural attrition and human disturbance. Two sites in Northeastern Prince Edward Island, excavated in 1985, illustrate examples of erosional and depositional processes critical to site interpretation.

Ian Kenyon
Ontario Ministry of Citizenship and Culture

A5

"WEALTH, STATUS AND POWER AMONG THE 19TH CENTURY SIX NATIONS IROQUOIS"

The Six Nations Iroquois settled on the Grand River of southwestern Ontario in the 1780's. In the 1840's a separate group consisting of Oneidas settled on the Thames River. By the mid-19th century both settlements were surrounded by white-occupied townships, and both were subjected to increasing European influence by the Indian Affairs Department, missionaries, and growing involvement in a market economy. Despite the sometimes different motives of these various European agents, most of them were in agreement that the Iroquois should become more like whites. This meant not only becoming Christians, adopting European economic modes and material culture, but also, perhaps, subscribing to a particular view about the way property should be organized, which for Europeans of this time was one based on social

and economic differentiation. There was undoubtedly a degree of culture change among the Six Nations at this time, yet in the face of such acculturative pressures a significant minority rejected Christianity and followed the way of the Longhouse, and even the Christian Iroquois retained the practice of hereditary chiefs following the matrilineal line of descent until the expulsion of the hereditary council in 1924.

For the Iroquois there were societal divisions based on tribe and religion, but as well there was economic differentiation, more marked among the Christian Iroquois than among the traditionalists. Against the backdrop of these political and religious divisions and using a "neo-Weberian" framework, this paper will examine the economic, status and power dimensions of Iroquois society among the Grand River and Oneida settlements during the 1840-1880 period, by reviewing both historical and archaeological evidence.

Kit Krozser
University of Saskatchewan

A6

"IDENTIFYING INDIVIDUAL CERAMIC STYLE: METHOD AND APPLICATION FROM NIPAWIN, SASKATCHEWAN"

Stylistic information can be obtained from a ceramic assemblage on a number of different levels, the most basic of these being the level of individual style. This paper distinguishes stylistic attributes of non-painted ceramics which are most useful for the identification of individual potters within a ceramic assemblage. An analytical methodology is developed and tested with special consideration to those attributes relevant to Pehonau complex ceramics from Nipawin, Saskatchewan.

Raymond J. LeBlanc
National Museum of Man

B2

"THE 1985 NOGAP ARCHAEOLOGICAL RESEARCH IN THE BEAUFORT SEA-MACKENZIE DELTA REGION"

In 1985, the Archaeological Survey of Canada began a multi-year project of archaeological investigation in the Beaufort Sea-Mackenzie Delta-Mackenzie Valley region, as part of the accelerated baseline studies of the federal government sponsored Northern Oil and Gas Action Plan (NOGAP). Part of the 1985 field season included inventory of the eastern half of the Yukon Coastal Plain and parts of the eastern flank of the Richardson Mountains overlooking the Mackenzie

Delta. The Yukon survey work was also supplemented by test excavation of a previously recorded interior Thule Site (NgVh-1), located on the Trail River at the western limit of the study area.

Twenty-four sites were recorded. These were located along river valleys, on the Beaufort Sea coast, and on upland ridges and knolls of the northern foothills of the British and Richardson mountains and the Barn Range. The test excavations of NgVh-1 revealed an artifact assemblage characterized by abundant technological debris related to the production of tools from caribou antler. Further inspection of the site area revealed the presence of tent rings, probable house depressions, shooting blinds, and a rock alignment which is likely part of a caribou drive line fence. This combination of features suggests a seasonal caribou hunting complex, associated with exploitation of the Porcupine caribou herd.

Genevieve Le Moine
University of Calgary

A8

"EXPERIMENTAL USE-WEAR ANALYSIS OF BONE TOOLS"

Experiments in three areas of bone tool use--leather piercing, hide fleshing and chopping--were carried out to produce use wear under controlled conditions. High resolution replicas of the worn areas of the tools were examined in a scanning electron microscope, at magnifications between 100X and 1000X. With this technique the wear patterns produced by each of the three types of use were readily distinguishable. Additionally, within each of these types variation attributable to variation in the material worked (fresh hide as opposed to tanned hide for example) was apparent. The experiments and variations will be briefly described and the resulting wear patterns will be illustrated.

Robert I. MacDonald
Trent University

A7

"LATE PREHISTORIC IROQUOIAN SOCIETY: A VIEW FROM THE WATERLOO REGION"

Knowledge concerning fifteenth century Iroquoian society is seen as pivotal to an understanding of Iroquoian prehistory. This period can not only be viewed as a referent regarding subsequent developments and the influences of European culture, but also as a consequent of evolutionary trends begun during previous centuries. Our current state of knowledge about this period is reviewed and suggestions are made for future avenues of investigation.

Alexander Mackie
University of British Columbia

B3

"SITE LOCATIONS ALONG THE NORTH SHORE OF THE LOWER SKEENA RIVER"

A survey of the CNR right-of-way along 140 km of the lower Skeena River was conducted in 1983. Forty-eight sites are now known, representing seven major types. Site types and locations differ as one moves upstream beyond the estuary. Distributions are discussed with reference to methods, environment and ethnography.

Martin Magne, Archaeological Survey of Alberta
Robert Tyhurst, University of British Columbia

B7

"ARCHAEOLOGICAL AND ETHNOGRAPHIC EVIDENCE FOR 500 YEARS OF CHILCOTIN IDENTITY IN BRITISH COLUMBIA"

The Athapaskan speaking Chilcotin of central British Columbia have maintained and continue to maintain a strong ethnic identity despite extreme acculturative pressures. Examining archaeological and ethnographic data, the paper focuses upon those socio-economic processes related to the continuance of Chilcotin culture, language and ethnic identity. The principal argument to be made is that Chilcotin economic and social adaptation, beginning with a migration into the area 500 years ago, has evolved into a form which was and is selective with regards to acculturative process. The paper also provides a case study example of cultural patterning in material cultural assemblages that extend back from the historic period into prehistory.

Carol I. Mason
University of Wisconsin-Fox Valley

A8

"MAPLE SUGARING AGAIN: OR THE DOG THAT DID NOTHING IN THE NIGHT"

Recently proposed evidence supporting aboriginal maple sugaring (Pendergast 1983) is re-examined and the importance of negative evidence considered.

Robert McGhee
National Museum of Man

B2

"THE MACKENZIE INUIT: HISTORICAL AND ETHNOGRAPHIC BACKGROUND"

Although the Mackenzie Inuit had the largest and densest population of any Canadian Inuit group, their traditional culture and way of life is more poorly known than those of any other groups. This paper discusses the few and vague historical and ethnographic sources relating to the Mackenzie Inuit, and attempts to reconstruct the major features of their society and way of life during the nineteenth century, as well as the history of contact with Europeans and the effect of such contact on aboriginal ways of life.

Jerry Melbye, Scott Fairgrieve
Erindale College, University of Toronto

B2

"THE EVIDENCE FOR VIOLENCE AT THE SAUNATUK SITE (MCKENZIE DELTA INUIT)"

The Saunatuk Site (NgTn-1) was excavated by Dr. Charles D. Arnold (Prince of Wales Northern Heritage Centre) in the summers of 1984 and 1985. The site is located east of the Mackenzie delta in the region of Eskimo Lakes (an inlet of the Arctic Ocean). It is thought to have been occupied by the Inuktuiut people between 300 and 500 years ago. Essentially, the site consists of the remains of two dwellings. Unfortunately, the initial discovery was made by bulldozer operations, and the skeletal remains have been greatly disturbed.

It is these remains which are the primary source of interest of this paper. A minimum of 34 individuals have been recovered, based on human mandible and mandible fragments. The remaining fragmented bones exhibit cut marks, split long bone shafts and fractures of all bones, especially crania. A large proportion of the represented population is immature and there is a conspicuous absence of young adults (age 20-40).

Jerry Melbye, Grant Mullen
University of Toronto

C3

"NEW DATA ON THE PEOPLE OF THE BALL SITE FROM THE LATE ONTARIO IROQUOIS PERIOD"

This paper presents findings on the human remains from the Late Ontario Iroquois Ball site (BdGv-3). The four burials, representing five individuals, are important new additions to the data from primary

burials being gained in recent years. Analysis of the remains is designed to further test dental attrition and subadult ageing techniques as well as collate the new data on age, sex, bone pathology and dental status, with that obtained earlier (Melbye, 1983).

Stephen G. Monckton
University of Toronto

A1

"SPATIAL ANALYSIS OF PLANT REMAINS FROM THE BALL AND BIDMEAD SITES"

New data on plant remains from the Ball and Bidmead sites, southern Ontario, disclose information on Huron plant use. Both sites have been extensively excavated providing a rare opportunity to examine plant remains variability within archaeological sites. Spatial distribution of plant remains is examined for possible patterns in the use of certain taxa.

Gregory Monks
University of Manitoba

B7

"UPPER FORT GARRY AS SYMBOLIC COMMUNICATION"

Upper Fort Garry as an architectural phenomenon is viewed in terms of its role in symbolically communicating the Hudson's Bay Company's dominant socioeconomic position to both company employees and settlers. Changes through time in the fort's appearance are interpreted as efforts to maintain the Company's dominance in the face of increasing socioeconomic competition from the settlement.

Richard E. Morlan
National Museum of Man

B4

"NEW DATES ON THE OLD CROW PLEISTOCENE"

The accelerator mass spectrometry method has provided new radiocarbon dates on 38 bone, antler and tusk specimens from the Old Crow region, northern Yukon Territory. Of outstanding importance is the finding that the Old Crow tibia flesher and three caribou antler artifacts, previously attributed to the Pleistocene, are of late prehistoric age. All other dates, including those on proposed mammoth bone flakes and cores, range between 25,000 and 50,000 years B.P.

David A. Morrison
National Museum of Man

B2

"KUGALUK: A SPECIALIZED CARIBOU-HUNTING SITE NEAR THE MACKENZIE DELTA"

The first season's excavations at the Kugaluk site are described, and several tentative conclusions are reached concerning the structure and function of the site. Kugaluk dates to the early historic period (ca 1800-1850), and seems to represent a fall and winter caribou-hunting site of a type not known from ethnographic sources. Faunal material and technological debris both suggest that despite the presence of sod winter houses Kugaluk may be best seen as a specialized "out-camp" closely integrated with the economy of large coastal villages such as Nuvurak on the Tuktoyaktuk Peninsula.

James Morrison
Legal and Historical Research

B5

"THE MYSTERIOUS MIDDLEMEN: NIPISSING AND ACHILIGOAN TRADERS IN THE NORTHEASTERN GREAT LAKES REGION 1650 - 1750"

Of the many proto-Ojibwa groups mentioned in the Jesuit Relations, the Nipissing and Achiligouan seem to have performed a specialized role as traders -- carrying Huron and then European goods into northern Ontario and northwestern Quebec from their base near the northeastern corner of Lake Huron. It is generally assumed that this type of middleman trade had died out by the end of the seventeenth century thanks to Iroquois raids, epidemic disease and the arrival in the north of European traders themselves. Indeed, the Achiligouan as a named group seem to have disappeared from the historical record by 1700, though some people known as Nipissing continued to occupy the lake of that name.

Using the post records of the Hudson's Bay Company' Moose and Albany Forts as well as French colonial records, this paper argues, on the contrary, that Achiligouan and Nipissing middlemen continued to ply their traditional northern routes throughout the first half of the eighteenth century - though they were known to Europeans of that period under a number of different names. Their fate provides some interesting clues to the complicated problem of Ojibwa identities in the first century after contact.

Wm. C. Noble
McMaster University

A3

"SOCIAL INTERACTIONS AT ACASTA LAKE, 5000 B.C."

Excavated evidence from the buried Northern Plano Acasta Lake site, MacKenzie District, N.W.T., provides significant details and interpretive explanations as to who and how a local quartzite erratic was quarried. "Ring configurations" of pit hearths testify to a series of lithic preheat treatment procedures, as well as indicate a contemporaneity of Plano Indians utilising various projectile styles. The settlement evidence further indicates that the site may have been utilised seasonally for as many as seven years. Faunal and radiocarbon considerations point to late summer/early fall occupation circa 5000 B.C.

Edgar S. Oreichbauer, Burnett County Historical Society
Robert A. Birmingham, State Historical Society, Wisconsin

C1

"DOGTOWN: AN HISTORICAL AND ARCHAEOLOGICAL STUDY OF A LATE HISTORIC ST. CROIX CHIPPEWA COMMUNITY"

In 1982, the Burnett County Historical Society conducted a multi phase research project on an historic site known as Dogtown. The objectives of the research were to determine the location of Dogtown, describe the nature and history of the site, and provide an historical framework from which its importance in terms of local and regional history could be assessed. Dogtown was found to be an early 20th century settlement which functioned as an important gathering spot for area Chippewa.

Robert W. Park
University of Alberta

A3

"THULE CULTURE WINTER HOUSES: A QUESTION OF DEFINITIONS"

Thule Culture winter sites have received a considerable amount of attention since the first were excavated in the early part of this century. But until very recently, few serious attempts have been made to place such sites in the context of an annual round. In spite of this, models contrasting an inferred Thule annual round with historically-observed patterns have been proposed, based at least in part on the differentiation between Thule "winter houses" and historical "quarmats", which are supposed to have developed from them. Evidence from historical accounts and recent excavations at a Thule

site on Devon Island, Northwest Territories, are drawn upon to argue that the distinction may be of dubious utility when studying Thule house ruin remains. It may be that an approach other than a strictly typological/chronological one is needed to deal with the demonstrated variability amongst "winter houses" and similar structures.

L.R. Bud Parker
Trent University

A2

"HALDIMAND CHERT: A PREFERRED RAW MATERIAL IN SOUTHWESTERN ONTARIO DURING THE EARLY HOLOCENE PERIOD"

Recently, researchers studying the Early Paleo-Indian (fluted point) cultures of Southern Ontario have indicated that chert preference was practiced by these very early lithic technologists. A recent archaeological excavation of a chert workshop site in the region of Haldimand in Southern Ontario provides new insight into one of these preferred raw materials from the Late Paleo-Indian and Early Archaic time period (10,000 to 8,000 years ago). Haldimand chert was preferred over other raw materials during a time when both cultural and environmental transition processes were occurring in the Southwestern Ontario region.

Ralph Pastore
Memorial University

B5

"BEOTHUK HOUSES: THE EVIDENCE FROM BOYD'S COVE"

Boyd's Cove, a late 17th early 18th century Beothuk site in Notre Dame Bay, Newfoundland, has eleven housepits, of which four have been excavated. After comparing the Boyd's Cove data with that from other excavated prehistoric and historic Beothuk sites, and with the historical record, the following hypotheses are advanced: 1) that coastal pit houses occur only with historic rather than prehistoric Beothuk occupations; 2) that these pit houses are evidence of a greater commitment to a strategy of sedentism which the Beothuk adopted in order to obtain easier access to European materials; 3) that the Beothuk houses found in the interior and described by early 19th century Europeans are more substantial than those from Boyd's Cove; 4) that this greater degree of permanence reflects the fact that Beothuks of this period were forced to live in the interior year-round; 5) that the large oval structures found at Boyd's Cove are evidence of bone mash feasts analogous to the Naskapi/Montagnais mokoshan.

L.A. Pavlish, University of Toronto
A.V. Jopling, University of Toronto
Zhang Zhenchun, Beijing Normal University

A4

"SELECTIVE TRANSPORT OF STONE AND BONE: AN EXPERIMENTAL APPROACH FROM FLUME TO FIELD"

A recirculating laboratory flume was used to study the sorting and relative transport of archaeological stone and modern bone materials. Fifty-one runs were conducted with Froude Numbers between 0.06 and 1.71. Depths of flow in the sand bed channel were adjusted by means of a side-wall correction for subsequent calculations. Bone and stone movement were plotted as a function of their rate of movement with respect to their individual mobility numbers. Low, transition and high energy flow regimes show a clear separation in the rate of movement. Settling velocity and drag coefficients were calculated for the material. These results have implication for understanding distributions of artifactual material on some archaeological sites, and may provide a key for interpreting the potential for movement on others. Results are applied to field problems in the Old Crow River Basin, Yukon Territory, Canada; and on the banks of the Kalambo River (Tanzania-Zambia border).

Robert J. Pearce
Museum of Indian Archaeology

A7

"MIDDLEPORT: PAST, PRESENT AND FUTURE"

This paper will examine the concept of Middleport from the perspective of the past, present and future. It begins with a historical overview of Middleport as a cultural taxon and a cultural time marker within a tripartite developmental scheme for the Ontario Iroquoians, as set forth initially by Wintemberg and subsequently refined by MacNeish and Wright. A brief statement will be made on the use of Middleport as a "horizon" by MacNeish, Emerson and Wright.

Brief mention is then made of shifts in theoretical and methodological paradigms in the past twenty years, leading to a shift from the interpretation of sites as representative of broad cultural entities and holistic culture change to being representative of particular local communities at specific points in time. Within this context, one Iroquoian community in the London area is summarized with specific reference to a Middleport period village which manifests a cultural and social transformation from the earlier Glen Meyer period to the subsequent late prehistoric Neutral period. This example is used to demonstrate both the continued validity of a tripartite

development scheme for the Ontario Iroquoians and the rejection or modification of the three fundamental principles of the Middleport substage of the Middle Ontario Iroquois stage as set forth by Wright in 1960 and 1966. The paper concludes with a suggestion for future research directions for the Ontario in general and specifically for Middleport period sites.

Arthur P. Pegg
University of Windsor

B6

"19TH CENTURY BERLIN: TWO PERSPECTIVES WITHIN AN URBAN SETTING"

Excavation during the 1984 field season at the Schneider Site revealed cultural material that covers a time period from 1807 to the late 19th century. In addition, a stone foundation with other architectural remains was located. Substantial artifact deposits are associated with this structure. Interpretation will include the significance of the stone foundation, the artifact deposits, and the urban setting that surrounds the site today.

A second perspective will deal with the Berlin Gaol, erected in 1852. Discussion will relate to the alterations in the architecture of the building over a period of time and the artifact assemblage recovered in the prison yards.

The theme of this presentation will focus upon excavation and salvage operations bordering a construction site, and secondly, archaeological investigations in the core area of a city.

Gordon Peters
USDA-Superior National Forest

C1

"RIVER POINT SITE (21 LA 10), LAUREL HABITATION IN NORTHEASTERN MINNESOTA"

The River Point Site is a Laurel habitation site located on the South Kawishiwi River in northeastern Minnesota. Excavation resulted in the first settlement and specific activity area data for Laurel in northern Minnesota. The River Point Site contained remains of a Laurel lodge, faunal evidence suggesting a late fall-early winter occupation, and specific activity areas, including copper tool manufacturing areas.

Leslie D. Peterson and William J. Yourd
Minnesota Historical Society

C1

"THE MCKINSTRY SITE: NEW PREHISTORIC HABITATION DATA FROM THE
ONTARIO-MINNESOTA BORDER COUNTRY"

Over the last century, excavations within the two multicomponent burial mounds of the McKinstry Site (21 KC 2) on Minnesota's northern border west of International Falls yielded important secondary evidence on Initial and Terminal Woodland occupations, but primary habitation data were lacking. Between 1982 and 1984, test excavations by the Minnesota Trunk Highway Archaeological Survey within the proposed highway realignment corridor eleven defined stratified multicomponent habitation deposits on the floodplain of the Little Fork River 100 meters from the nearest mound locus. Preliminary analyses suggest use of the site as a Spring fishing camp focusing on the procurement of sturgeon through the Archaic, Initial Woodland (Laurel) and Terminal Woodland (Blackduck) occupations. The excellent preservation of artifacts, organic remains, and features, as well as the striking stratification of fluvial laminae bearing cultural materials to depths exceeding two meters promise exceptional research potential.

Rod Pickard
Parks Canada, Western Region

C4

"FUR TRADE SITES IN JASPER NATIONAL PARK: RECENT RESEARCH"

In 1810 David Thompson entered the region of Jasper National Park leaving William Henry to camp along the Athabasca River. Thompson's trip and his subsequent crossing of the Athabasca Pass in 1811 opened the area to the fur trade. Jasper House was officially established by the North West Company on Brule Lake in ca. 1814 being later moved to Jasper Lake by the Hudson's Bay Company in ca. 1830.

From 1983 to 1985 the Archaeological Research Unit, Parks Canada, Western Region conducted investigations within the Athabasca River Valley in Jasper National Park. This paper discusses the results of recent surveys and examines the findings of investigations at the 1830-84 Jasper House. Finally, the paper considers the continuity in architectural styles during the 1830 to 1907 period by focusing on select residences within the study area.

Jean-Luc Pilon
National Museum of Man

B5

"HISTORIC NATIVE ARCHAEOLOGY ALONG THE LOWER SEVERN RIVER, ONTARIO"

A number of historic Native components have been excavated along the Severn River which span the historic period, from earliest contacts up to the middle of this century. By examining the changes in three categories of material remains, as well as in the faunal assemblages, it is clear that the old ways persisted for much longer than has been proposed by some. In fact, major shifts cannot be perceived archaeologically until well into the nineteenth century.

Resume

Un nombre important d'occupations amérindiennes datant de la période historique a été documenté le long la rivière Severn. La plus ancienne remonte aux premiers contacts avec les européens. L'analyse des vestiges matériels et des faunes associées à ces occupations indique un taux de changement de la culture matérielle et du système économique plus lent que proposé par certains. En effet, on ne peut détecter de réorientations significatives que vers la fin du XIX^{ème} siècle.

Patrick Plumet (UQAM) et Jean-Francois Moreau (UQAC)
Université du Québec à Montréal

A3

"LA FOUILLE DU SITE ARCHAÏQUE DbEj-11 (SITE LAVOIE) AUX GRANDES BERGERONNES, COMTÉ DU SAGUENAY, QUÉBEC"

Le site archaïque DbEj-11 (site Lavoie) avait la réputation de contenir 14 couches archéologiques. Les fouilles entreprises à partir de 1983 ont montré qu'il y avait en réalité deux phases d'occupations distinctes, l'une vers 3000BP, l'autre vers 5000 BP, séparées par une épaisse couche de sable. Les analyses en cours montrent un mode de subsistance reposant en partie sur les ressources marines.

Heinz Pyszczyk
Archaeological Survey of Alberta

B7

"ETHNIC COMPOSITION AND MATERIAL CORRELATES IN THE FUR TRADE"

Is ethnic identity visible in the material culture record? What form will it take in the archaeological record? Can acculturation

process be measured with material culture remains and just what part of the culture subsystem is being measured? The purpose of this paper is to explore each of these questions using data from the fur trade in western Canada. A total of 500 debt lists (describing items bought by Hudson's Bay Company employees) are examined. The consumption of material goods used by French Canadian voyageurs, Metis, and British labourers are compared. The results of these comparisons are presented and the implications they have for the archaeological record and the identification of acculturation processes are elaborated upon.

C.S. Reid and Grace Rajnovich
Ontario Ministry of Citizenship and Culture

"LAUREL: A RE-EVALUATION OF THE SPATIAL, SOCIAL AND TEMPORAL PARADIGMS"

This paper presents an in situ argument for the development of Laurel and four major expansion/contraction phases. The hypotheses are based on the correlation of all known Laurel radiocarbon dates and ceramic analysis using Double-Link Close-Proximity analysis and Brainerd's Coefficient of Similarity. Also presented are preliminary hypothesis on Laurel Social structure based on recent discoveries of complete Laurel house structures and their associated exterior activity areas in a single village.

Peter E.W. Reid
University of Windsor

A2

"BAYPORT CHERT: A TEST OF REGRESSION ANALYSIS AS A TECHNIQUE FOR EXAMINING PREHISTORIC TRADE"

The proportions of Bayport chert, from the Saginaw Bay area of Lower Peninsula Michigan, in sixty-one chipped stone assemblages from sites in southwestern Ontario, Michigan, and northwestern Ohio are examined. The distribution of this raw material 'decays' most distinctly away from the immediate region of its source. Various mathematical models of 'distance-decay' are tested against this distribution. The problems encountered in constructing such analyses are discussed, as well as the problems involved in relating the mathematical results obtained to putative patterns of economic interaction among different Late Woodland communities in the Middle Great Lakes' basin.

James Ruddock
University of Toronto Schools

A1

"PREDICTING LATE WOODLAND SITE LOCATIONS"

Based on the results of a program predicting the location of Late Woodland villages in Wellington and Waterloo Counties, a similar geographical methodology has been implemented to investigate the extent of Late Woodland occupations in Peterborough and Victoria Counties.

David Sanger
University of Maine at Orono

A3

"CULTURAL ADAPTATIONS TO PASSAMAQUODDY BAY, NEW BRUNSWICK"

Passamaquoddy Bay, on the Maine-New Brunswick boundary, can claim an archaeological research history that spans two centuries. Unfortunately, no integrated report exists, although there are many short articles, Master's theses, and unpublished manuscripts. This paper synthesizes data from a dozen regional sites.

Recent, very rapid sea-level rise (up to 9 mm per year) in the Passamaquoddy Bay region has eroded nearly all sites to a certain degree. The affect is cumulative, so that the older sites, those pre-dating 3,000 B.P., have disappeared. Several of the earliest components lack shellfish remains, for reasons that are still obscure. Starting around 2,000 B.P. there is ample evidence for substantial shell middens, and with them are associated the faunal remains required for a discussion of adaptation to the region.

Because of the site loss and problems associated with shell midden stratigraphy, no attempt is made to reconstruct paleo-economies despite the abundance of faunal data. A more useful approach is a reconstruction of site locations based on a combination of physiographic features leading to a generalized adaptive strategy that tended to minimize risk. This pattern remained relatively unchanged over 1,500 years, although artifact styles changed in response to extra-regional events.

Shelley R. Saunders, McMaster University
Anne Keenleyside, University of Alberta

G3

"CIRCUMSCRIBED BURNING OF HUMAN BONE: ARCHAEOLOGICAL IMPLICATIONS"

A number of experimental studies have investigated the changes to and conditions associated with the burning of bone. Yet for most of this research the interest is in complete consumption by fire rather than localized burning. The present study was prompted by an examination of an adolescent male skeleton excavated from the Uren site. This individual sustained localized burns to the cranium, pelvis and lower limb. In an attempt to reconstruct the circumstances under which circumscribed burning can be produced two approaches were taken. First, samples of burned and unburnt bone from the exhumed skeleton were examined for their colour and microscopic morphology and compared to published standards. Second, burning experiments were conducted to investigate maximum temperatures reached by various heating devices and maximum temperatures reached by samples of human bone, both fleshed and defleshed, when the heat source is localized. Results show that to produce localized burns on fleshed bone which match the stages identified on the exhumed specimens requires temperatures greater than the heating devices could achieve. In addition, our results support previous observations that there are wide discrepancies between maximum bone temperature and maximum heating device temperature. The implications of these experiments for archaeological interpretations are discussed.

Howard Savage and William Carpenter
University of Toronto

A8

"SKELETAL EFFECTS OF PROLONGED SLED USE BY ESKIMO HUSKY DOGS"

Prolonged use of Eskimo Husky dogs for pulling sleds consistently produces effects on those vertebral bodies and extremity bones subjected to the greatest stresses. Similar assemblages of changes are not seen in Husky dogs not used for traction. The skeletal changes in sled dogs are closely comparable with those present in a dog skeleton excavated in 1973 at the Gray Burial Site, Saskatchewan and radiocarbon dated at $4,350 \pm 250$ B.P. These changes are interpreted as the earliest evidence of the cultural use of dogs for traction in North America.

Henry P. Schwarcz
McMaster University

B4

"PROGRESS IN URANIUM SERIES DATING OF PALEOLITHIC SITES"

Archaeological sites in caves and travertine deposits can be dated by measurement of the disequilibrium between Th-230 and its parent isotope U-234. This method has been applied to a large number

of sites in the Old World, allowing us to date the transition from H. erectus to H. sapiens, and from lower to middle Paleolithic industries. This paper will review progress at various sites which we are currently dating: Torralba-Ambrona, Spain; Monte Circeo, Italy and other Paleolithic sites in Southern Italy; Bilzingsleben, E. Germany; Sclayn, Belgium. The mathematical treatment of data from travertines containing detrital contaminants (clay, sand) has been refined to show that multi-sample analysis of the soluble component alone (leachate) can give a satisfactory date.

Thomas C. Shay
University of Manitoba

B7

"ASPECTS OF HISTORICAL ETHNOBOTANY IN WESTERN CANADA"

Historical settlement of western Canada, in general, is a story of Old World immigrants adjusting to New World conditions. Culture change was conditioned by shifts in economy, population and contacts between groups and with the outside world. This paper examines changing patterns in the use of plants by several ethnic groups for the period 1760 to 1880. In turn, these changes are related to historical trends and an interpretive model for ethnobotanical change is offered. As a data base for historical reconstruction of plant use, the author relies on archival sources, ecological studies and available archaeological material. The results of this study have broad implications for a processual study of acculturation and culture change.

Peter Sheppard
University of Waterloo

A4

"ROCK VIDEOS AND SITE DISTURBANCE: THE STUDY OF SITE DISTURBANCE AT KALAMBO FALLS, ZAMBIA"

In the last decade there has been increasing interest in the processes of site formation which have operated on early man sites in eastern Africa. Many of these sites have suffered various degrees of disturbances by natural forces and before the cultural significance of the sites can be investigated the degree of natural disturbance must be ascertained. One such site is Kalambo Falls, an Early and Middle Stone Age site located on the Zambian/Tanzanian border. In this paper I will discuss attempts to determine the nature and degree of disturbance at Kalambo Falls with the aid of video-taped flume studies of flake transport.

Karolyn Smardz,
Toronto Board of Education

B6

**"THE THORNTON BLACKBURN HOUSE SITE - THE ARCHAEOLOGY OF TORONTO'S
BLACK HERITAGE"**

Despite the considerable amount of research carried out on Black heritage sites in the United States, until the summer of 1985 no free Black settlement site had been excavated in the province of Ontario.

The Thornton Blackburn House site was operated as the first project in Public Education in Archaeology of the new Archaeological Resource Centre (Toronto Board of Education). The excavation explored the home of Thornton and Lucie Blackburn, escaped slaves from Maysville, Kentucky, who came to Toronto in 1834. It was also the first lower-income domestic site to be excavated in the City of Toronto.

The paper will briefly outline the organization and goals of the Archaeological Resource Centre, and focus on the contribution to our knowledge of Toronto's nineteenth century Black heritage which resulted from the excavation.

J.E. Smeaton, K.M. Wilson-Yang, George Burns
Department of Chemistry, University of Toronto

A6

**"PLASTER ANALYSIS IN THE TOMB OF NEFERTARI (NO. 66, VALLEY OF THE
QUEENS, EGYPT)"**

The precarious condition of the Tomb of Nefertari (ca. 1260 B.C.) has been previously acknowledged.^{1,2} Large areas of its painted plaster have been lost and salt infestation is visible throughout the remaining painted surfaces and in the exposed limestone from which the tomb was cut. On the other hand, the remaining murals have retained their brilliant colours and are in a relatively good but fragile state. Because of the techniques and materials of its construction, this tomb is predisposed to deterioration. Rising humidity in the Nile Valley threatens the condition of this already fragile tomb. In order to identify the principal physico-chemical processes which promote deterioration of the Tomb of Nefertari, detailed material analyses are necessary. Here we report the results of a series of analyses of the plaster. The composition of a set of well-documented plaster samples from the Tomb of Nefertari was determined using Differential Scanning Calorimetry, Ion Chromatography and Neutron Activation Analysis. Samples of plaster from the stable, well-preserved Tomb of Horemheb (ca. 1340 B.C.) were also examined.

Comparisons between the plasters of these two contemporaneous tombs will be presented.

1. H. Goedicke and G. Thausing, Nofretari, Akademische Druck u Verlagsanhalt, (Graz, Vienna, 1971).
2. K.M. Wilson-Yang, T.C. Billard, George Burns, The SSEA Journal XII, No. 1 (1982), 9.

Beverley A. Smith
Michigan State University

A8

"THE USE OF ANIMAL RESOURCES BY THE 17TH CENTURY INHABITANTS OF THE MISSION OF ST. IGNACE, MICHIGAN"

Animal resources were used by the Huron and Ottawa at the 17th century Mission of St. Ignace within the realms of subsistence, technology, and ritual. Zooarchaeological analysis, involving the examination of over 9000 specimens, is supplemented by ethnohistorical records to reconstruct the role of animals in the lives of the Mission's Indian inhabitants.

Fish are the dominant subsistence resource, increasing in importance over time, and were procured by several methods. Dog and beaver are important mammals; beaver pelts also served as a currency for the attainment of European goods. Mammalian bone served as raw material for utilitarian items which are compared to artifacts from the Huron, Petun, and Ottawa homelands. Animal products also served a role in certain ritual activities, particularly curing ceremonies, at the Mission of St. Ignace.

David G. Smith

"THE SERIATION OF IROQUOIAN POTTERY"

Seriation of pottery has been an important means of inferring relative chronologies of Iroquoian sites for several decades. This paper first discusses the methodological underpinnings of seriation as established by researchers such as Rouse and Spaulding. It then traces the development of applications of seriation to Iroquoian pottery since MacNeish's pioneering study of Iroquoian pottery types. The paper examines the controversy that developed over types and attributes as seriation entities that developed over the past twenty-five years, and reviews the distinctive approaches that have been pursued by Canadian and American researchers. An extension of

attribute analysis employing attribute combinations as seriation entities is discussed, and examples from the author's recent research are presented.

Dean Snow
State University of New York

A5

"HISTORIC MOHAWK SETTLEMENT PATTERNS"

By 1633 the Mohawk Indians had coalesced into eight villages in a core area of the Mohawk River drainage. In that year a smallpox epidemic began the reduction of a Mohawk population of around 10,500 to around 2,000 by 1660. Frequent village relocations and a relatively complete archaeological record allow us to track their movements and to measure changes in settlements and domestic architecture. By 1770 Mohawk villages had changed from dense and often palisaded sets of longhouses to dispersed nuclear family houses modeled on European designs. Demographic and social implications are addressed.

Elizabeth Snow
Parks Canada, Prairie Region

C2

"CURRENT SAFETY PRACTICES IN CANADIAN ARCHAEOLOGY"

New legislation (Bill C-34) assigns personal responsibility (and liability) to supervisors in the Public Service of Canada to provide demonstrably safe working conditions. To meet this requirement, Parks Canada is attempting to produce safety guidelines for use on its excavation projects. This paper presents the results of a survey to determine safety procedures currently used by Canadian archaeologists and outlines the direction this project may take.

Brian E. Spurling
Saskatchewan Culture and Recreation

C2

"ON ARCHAEOLOGY AND THE POLICY SCIENCES"

It is argued that the furtherance of Canadian archaeology is no longer so much determined by substantive advances to knowledge but by effective participation and influence in the formation of public policy. This recognition is crucial as we attempt to establish national heritage legislation in a conservative political environment and an austere economic one. The importance of public policy-making

processes has also been reinforced by recent reflexive studies which have exposed archaeology's myth-making and ideological roles. Deconstructing ethnic stereotypes and the historical certitudes used to justify social inequities requires far more than academic debate; it requires the discipline's active intervention in contemporary society. An understanding of policy science, an applied and theoretical field which analyses how social choices are arrived at, can assist archaeology as it leaves the cross-roads to become a mature, reflexive and more socially relevant profession.

Marc Stevenson

B7

"THE EMERGENCE OF CLASS STRUCTURE AT AN ARCTIC WHALING STATION"

Historical research, informant interviews and archaeological investigations at Kekerton -- an historic whaling station in Cumberland Sound, Baffin Island -- document the emergence of two distinct social classes among Inuit society during the late 19th and early 20th centuries. This paper examines the evidence for this development and advances two complementary theories to account for it. As well, it demonstrates the potential value of Kekerton for fuller understanding of the evolution of class systems from basically egalitarian ones.

W. Bruce Stewart
Cataraqui Archaeological Research Foundation

B6

"ARCHAEOLOGY OF THE CITY: THE KINGSTON EXPERIENCE"

Since the summer of 1980, Kingston, Ontario has been the scene of an intensive program of historical archaeology. During this period, archaeologists have had the opportunity to examine several sites within the city which reflect various aspects of Kingston's three hundred and thirteen years of Euro-Canadian occupation. As the program of research has been conducted within the conceptual framework of Urban Archaeology, the city itself has been the focus of our investigations. The research conducted to date has provided a wealth of data on military, commercial, and residential components of Kingston's development and the socio-economic links between these different components.

Frances L. Stewart, University of New Brunswick
Robert S.O. Ferguson, Parks Canada, Atlantic Region

C4

"NINETEENTH CENTURY BRITISH MILITARY DIET AT SIGNAL HILL NATIONAL HISTORICAL PARK"

An archaeological survey of Signal Hill National Historic Park, St. John's Newfoundland, in 1984, included partial excavation of a military midden from the early nineteenth century. Faunal remains from this midden reveals the extent to which British soldiers supplemented their designated rations with local fauna, particularly fish. Ceramic, glass and metal artifacts to some extent reflect dietary intake as well.

An indication is also given of the nature of diet in one of the British barracks buildings converted to a civilian hospital at the end of the nineteenth century.

Carole Stimmell
University of Toronto

B2

"A SHORT COURSE ON MACKENZIE DELTA THULE CERAMIC MATERIALS"

Archaeologists working on MacKenzie Delta Thule materials have the opportunity to study a complex, rewarding and unique artifact assemblage. However, many arctic archaeologists are not familiar with the special properties of ceramic materials. This paper will focus on possible methodologies and research designs for analysis of MacKenzie Delta ceramics. The author will draw special attention to analysis techniques which can be learned and used with no special training or equipment.

R.L. Stromberg
University of Toronto

B2

"CACHE POINT (NhTs-2) AND EAST CHANNEL PREHISTORY"

Our picture of Mackenzie Delta prehistory is based almost entirely on research conducted along the East Channel of the Mackenzie River. This is not surprising. The East Channel boasted the highest population density in the region and it was the centre of the distinctive beluga hunt. Furthermore, the East Channel is the major navigable stream, thus, sites along its banks are easily accessible. Even so, this picture has been built on limited research. Excavations at Cache Point have extended the cultural sequence back in time with interesting results. First, it is clear the adaptation was always

focused on beluga and fishing. Second, it is now possible to consider phases in the Mackenzie Thule cultural continuum. Third, it is now clear that the adaptation represents a specialized response to the delta environment which evolved alongside other Middle Thule groups.

Barbara R. Stucki
Northwestern University

B3

"STRATIGRAPHIC EVIDENCE OF CHANGING SITE USE - PRELIMINARY DATA FROM SOUTH MORSEBY ISLAND, QUEEN CHARLOTTE ISLANDS, B.C."

Stratigraphic sequences from 15 test units in nine sites located in the south Morseby Island area of the Queen Charlotte Islands, B.C. provide a window to changing patterns of inter- and intra-site activity in this area. These sites contain a detailed and almost undisturbed record of human activity, including an abundance of hearth, pit, and stake mold features. The sequence of deposits at four of the six deeply stratified sites appear to show a change from intensive procurement and processing of resources, especially shellfish, to a period emphasizing domestic activity with a proliferation of features and low shell density 'floor' deposits. Examination of the interior of probable house depressions and a rockshelter reveals a high concentration of features. Differences in the size, frequency, and distribution through time of features and refuse deposits in these 'houses' suggest variation in the use of domestic space between and within sites.

H. Takamiya
University of Toronto

A6

"NEUTRON ACTIVATION ANALYSIS OF POTSDHERDS FROM OKINAWA, JAPAN: A PRELIMINARY REPORT"

Neutron Activation Analysis was carried out on six different pottery types which range in age between the late (ca. 4000 B.P.) and the final (2300 B.P.) Jomon periods from the island of Okinawa, Japan. This kind of analysis had never been undertaken on Okinawa pottery. The results suggest that this approach will be of great importance in the analysis of pottery from the island and in the reconstruction of its prehistory.

Gilles Tassé
Université du Québec à Montréal

HABITATIONS DU SYLVICOLE MOYEN SUR LA COTE NORD DU SAINT-LAURENT"

Au cours des travaux de l'Ecole de fouilles de l'Université du Québec à Montréal aux Grandes-Bergeronnes, comté de Saguenay, une fouille en aire ouverte au bord d'une falaise en cours d'érosion a mis au jour ce qui est apparu comme un enlignement de plusieurs foyers formant la structure axiale d'un fond de cabane. L'organisation spatiale de cette structure, composée de pierres de foyer entourées de vestiges lithiques, céramiques et animaux, a permis d'interpréter des vestiges semblables en partie érodés ou aperçus fragmentairement dans les sondages antérieurs. La décoration céramique situe le site au Sylvicole moyen, et soulève plusieurs questions sur les affinités culturelles des populations impliquées, pratiquant un mode de subsistance orienté vers la mer, avec les cultures sylvicoles du Haut Saint-Laurent et des Grands Lacs.

Peter Timmins
McGill University

A1

"TIME OUT OF HAND: PREHISTORIC IROQUOIAN DEVELOPMENT AND THE RADIOCARBON EVIDENCE"

Recent critical analysis and calibration of Iroquoian radiocarbon dates suggest a number of refinements to our understanding of prehistoric Iroquoian chronology. This paper summarizes these temporal trends from a chronometric viewpoint and discusses their implications for our current understanding of Iroquoian development. While radiocarbon evidence suggests new directions for inquiry, it is stressed that Iroquoianists must take a more thoughtful approach to the collection of radiocarbon samples and their subsequent interpretation if dating precision is to be enhanced.

M.A. Tisdale
University of British Columbia

A6

"LATE WOODLAND CERAMIC TECHNOLOGY AND ECONOMIC ORGANIZATION IN THE CENTRAL BOREAL FOREST"

During Late Woodland times pottery-producing complexes of the Clearwater Lake Phase coexisted in the central Boreal Forest with nonceramic complexes. Recent surveys of ethnographic and archaeological literature suggest that pottery should not be found among people living as mobile and marginal an existence as that portrayed in current reconstructions of prehistoric Subarctic lifeways. The literature surveys may overstate the significance of observed correlations between ceramic industries, intensive plant use and sedentary life; alternatively, the historic subsistence and settlement patterns usually used to reconstruct prehistoric economies in the

Boreal Forest may not apply very well to the complexes of the Clearwater Lake Phase.

John Tomenchuk
Peabody Museum, Harvard University

A2

"EXAMINING THE NEED FOR PARAMETRIC APPROACHES IN USE-WEAR STUDIES"

In recently published use-wear studies, one detects a growing dissatisfaction with customary qualitative, subjective use-wear approaches. Suitable alternatives are not always suggested or seemingly perceived. The factors dictating parametric methodologies in use-wear are increasing and they are examined on both theoretical and practical grounds. (The term parametric is used here to denote those variables and their mathematical relationships which are both necessary and sufficient to describe any case).

John R. Triggs
University of Toronto

B6

"STRATIGRAPHIC ANALYSIS: AN APPROACH TO THE ASSESSMENT OF MANUFACTURE-DEPOSITION LAG AT FORT FRONTENAC, KINGSTON, ONTARIO"

Excavation data from Fort Frontenac, a 17th - 20th century French and British military, domestic and commercial centre, was analyzed using the Harris (1979) method of stratigraphic sequencing. This type of post excavation analysis consisting of correlation, phasing and periodization of archaeological stratigraphy is considered a preliminary step to higher level goals of cultural reconstruction and explanation.

Historical documentation of construction, destruction and depositional events on the site serve as chronological markers used to periodize the relative stratigraphic sequence. Because the cultural deposits are dated by non-material means, the potential for assessing the problem of manufacture-deposition lag is discussed.

James A. Tuck
Memorial University of Newfoundland

C4

"LOOKING FOR THE COLONY OF AVALON"

The Colony of Avalon was founded by George Calvert, later the

First Lord Baltimore, in the early 17th century. Beginning in 1621 a "mansion house", kitchen, tenements, brewhouse, henhouse, forge, and enclosing defenses were constructed. The area has been occupied continuously to the present day making explorations for the early settlement a kind of urban archaeology in a rural setting. Excavations during 1984 and 1985, concentrated in a single small abandoned garden, have revealed a complex and confusing series of features dating from the first half of the 17th century. Excavations to date will be described and a tentative interpretation of the results will be offered.

Gary Warrick and Jim Molnar
McGill University

A4

"THE POTENTIAL OF ARCHAEOLOGICAL SURFACE COLLECTIONS FROM PLOUGHED FIELDS"

As the cost of archaeological excavation escalates each year, surface collections have come to play an increasingly significant role in archaeological research and resource management. Consequently, it is necessary that archaeologists develop cost-efficient techniques for extracting useful information from surface collections. Using case studies from Southern Ontario, the potential of archaeological surface collections from ploughed fields is evaluated. It is concluded that surface collection of ploughed fields when undertaken in a controlled manner with a sampling design can provide meaningful data for both academic archaeology and archaeological resource management.

Sylvia M. Weeks
Simon Fraser University

C3

"A PRELIMINARY INVESTIGATION OF BURIALS FROM PENDER ISLAND, B.C."

This paper presents evidence from the analysis of over 90 prehistoric burials from an archaeological site (DeRt-2) on Pender Island, B.C. The burials provide information concerning two aspects of island prehistory: 1) morphological and biological information about the prehistoric population, and 2) cultural information as shown in varying burial practices over a 4000-year period. The skeletal sample has been divided into two groups, an Early Phase from ca. 5000 B.P. to ca 3000 B.P., and a Later Phase from ca. 3000 B.P. to 1000 B.P. The methods of analysis included estimation of age-at-death, estimation of sex, estimation of stature, pathologies, as well as type of burial, i.e. position of remains, orientation, number and types of grave goods, inhumation, "bundle" burials, and cremation.

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A7

"EARLY IROQUOIANS: A STUDY IN THE MULTILINEAR EVOLUTION OF VILLAGE LIFE"

This paper will review advances in the understanding of Early Iroquoian cultural systems in southern Ontario. While much of the current work has focused on individual villages, other studies have been placed within regional settlement frameworks that have allowed for the examination of functional variability in the use of sites. Early Iroquoians appear to have had mixed economies involving both horticulture and a considerable reliance on naturally-occurring subsistence resources. Their settlement-subsistence strategies therefore differed significantly from those documented for either earlier hunter-gatherers or Late Iroquoians. This suggests that the economic and socio-political organization of Iroquoian society developed over a much longer period than was previously thought. Moreover, settlement-subsistence and ceramic data suggest that regional populations were experiencing unique cultural adaptations and arriving at different stages of economic, social and political development at slightly different times.

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A4

"TEMPERATURE AND HUMIDITY MEASUREMENTS IN SENSITIVE ARCHAEOLOGICAL SITES: THE TOMB OF NEFERTARI (NO. 66, VALLEY OF THE QUEENS, EGYPT)"

Temperature and humidity measurements are of great usefulness in assessing the degradation processes and environmental responses of sensitive archaeological sites. This shall be illustrated by results obtained by this laboratory in the Tomb of Nefertari. This royal tomb was discovered in 1904 and exposed to the external environment. After signs of accelerated degradation, the tomb was subsequently closed to extensive visitor access. A series of temperature and humidity measurements has been obtained from the closed tomb using a prototype automatic hygrothermograph which takes readings every 30 minutes and which has a storage capacity for a year's worth of data. These readings, coupled with outside data, have allowed us to determine that this tomb is not isolated with respect to humidity despite dramatic temperature stability: the internal temperature varied less than 1°C over 8 months. The significance of our measurements will be discussed with respect to the changing Nile Valley climate and potential visitor access.