

CANADIAN ARCHAEOLOGICAL ASSOCIATION ABSTRACTS

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The University of Calgary, Calgary, Alberta

Herbert L. Alexander
Simon Fraser University

Early Man Sites: Brooks Range, Alaska

Salvage archaeology along the route of the Trans-Alaska Pipeline located 189 sites. In the northern section several of these can be identified as early occupations. The putu site is a single component campsite with over 100 recognizable tools. Among these are Clovis points, burins, cores and blades. Some of the artifacts provide good comparisons with old world counterparts. Two additional sites contain lanceolate points comparable to types from the Great Plains.

Roy L. Carlson
Simon Fraser University

Problems of Chronology in Strait of Georgia Archaeology

In 1943 Philip Drucker defined the Puget-Sound-Gulf of Georgia Aspect on the basis of horizontal distribution of artifact types. Since that time radiocarbon dating combined with archaeological survey and excavation have demonstrated the basic cultural unity of much of this sub-area through time. Phase sequences can with confidence be carried back to 2000 B.C. on the basis of radiocarbon samples associated with excavated materials, and predictable to terminal Pleistocene times on the basis of other evidence. There is a basic continuity in technology throughout the known period of occupation with major changes occurring between 400 and 1000 A.D. Culture content is by no means complete for any phase, and the absence of quantified data from a number of sites combined with few detailed typological studies create a number of problems relating to the chronological picture as presently known.

Donald W. Clark
Canadian Archaeological Association

Archaeology of the Batza Téna Obsidian Source of Interior Alaska and Its Significance to Paleo-Indian Prehistory

Brief reconnaissance surveys were undertaken during 1969 and 1970 by the National Museum of Canada in the area of a natural obsidian source on the Koyukuk River of northern interior Alaska. This locality, recently reported by the U. S. Geological Survey, is of particular interest inasmuch as it presently is the only known source for the high grade obsidian found in north Alaskan sites. Batza Téna ("Obsidian Trail", a local Koyukon place name which we have extended to apply to the source and archaeological environs) has served as a focus for hunters during the past several millennia dating from Paleo-Indian times as indicated by finds of fluted points, through more recent periods as indicated by notched (Tuktu) points and microblades, and to the ethnographic present as indicated by local reports and traditions.

A sample of approximately 400 artifacts obtained from nearly 50 sites and chipping stations is indicative of only part of the potential of the area. The surficial and apparently disturbed or mixed nature of most artifact and debitage associations has facilitated reconnaissance collecting activities but has imposed

serious problems in isolating valid complexes". Obsidian hydration determinations are being employed to facilitate periodization and dating of the collections.

Leslie B. Davis
Montana State University

Time, Obsidian Utilization and Culture Correlates for the Waterton Lakes Area, Alberta

The routine application of obsidian hydration dating to problems of prehistory has been inhibited by the unavailability of a systematic methodology whereby archaeologists can acquire experience and confidence in its use. This paper demonstrates such an approach and it illustrates the kinds of relatively independent insights that can be achieved by its sensitive application. The data base consists of over 240 hydration measurements developed from obsidian recovered at 15 sites in the Waterton Lakes area of Alberta. This topographically delimited sector of the Northern Rocky Mountains-Northwestern Plains region is currently undergoing extensive and intensive archaeological investigation, such that an uncommonly representative pattern of obsidian use and dispersal within the region has been defined. The varying prehistoric use of obsidian over time, within three spatially and ecologically differentiated sub-sectors is described. Temporal correspondences with locally occurring archaeological "cultures" are then delineated. Statements of probable interrelationships between such variables as time (both relative and "absolute"), space, climate, microenvironment, and culture are then suggested as a function of logical inference. These hypotheses are shown to be testable by reference to data and formulations provided by a more specifically archaeological point of view. It is suggested that this methodological strategy can be extended as a hypothesis generating model into other archaeological regions.

Kenneth C.A. Dawson
Lakehead University

An Attribute Analysis for the Blackduck Pottery Tradition

An attribute analysis of ceramics from a relatively pure, prehistoric Blackduck focus site is presented. It is suggested that the adoption of such an approach to the vast, relatively unexamined, north central continental region would avoid the breakdown in communications which has characterized ceramic analysis based on typological analysis. The proposal is considered an initial step before categorizing into attribute constellations or types.

Paul F. Donahue
University of Wisconsin

Recent Excavations in Southern Carrier Territory, British Columbia

A progress report on preliminary excavations during the past summer at two sites in the central Interior Plateau of British Columbia. Of the two, the more recent is a village site occupied from about A. D. 1800 to 1945 and, for which some ethnohistoric documentation exists. The earlier site holds a possible time depth of late B. C. to late prehistoric, is stratified and has a large concentration of house pits on the surface. This project is being accomplished with the aid of advanced students in zoology, botany and geology so that a multidisciplinary approach will be attained. Some primary objectives are to construct a cultural and paleoecological chronology for this portion of the Plateau; research the effects of the Fur Trade, as seen archaeologically, on the aboriginal population; document these effects through a study of the Hudson's Bay Company archives; and, obtain a representative collection of the modern fauna and flora.

Jack Elliott
The University of Calgary

The Ethnoarchaeology of the Cypress Hills Metis

Archaeological remains, within Cabins B and E of the Kajewski Cabin Site (DjOo-120), Cypress Hills (Alberta), indicate that a potential for empirical research has been provided between prehistory and Euro-American contact, which may increase the relevance of the direct historical approach in Canada. Detailed analysis from two levels (viz., archaeological and ethnohistorical), of this Hivernant (Metis)winter camp dating ca. A.D. 1860-1885, demonstrates that syncretic assimilation of Indian and Euro-American traits can be determined from the archaeological record.

K. R. Fladmark
The University of Calgary

Early Prepared Core and Microblade Industries on the Queen Charlotte Islands, British Columbia

Archaeological investigations on the Queen Charlotte Islands in the summer of 1970 resulted in the partial excavation of two sites containing abundant evidence for a distinctive microblade industry, as well as the use of prepared cores for the manufacture of other types of tool flakes. Geological evidence indicates an age in excess of 8,000 years for these components. Descriptions and possible relationships of these assemblages will be offered.

Bryan C. Gordon
The University of Calgary

Whirl Lake, an Early Indian Site Along the Northern MacKenzie River

MjTp-1, the Whirl Lake Site, is located 17 miles east of the settlement of Arctic Red River. It comprises one semi-subterranean house pit in the midst of a half-dozen cache pits. Of the latter, one undisturbed fish-cache yielded three levels of pike remains placed on the original permafrost tables. The single residence, faunal inventory, and the number of bark, wood, bone, antler and lithic tools, and the fish caches, establish this site as a single family summer habitation. The radiocarbon samples are currently being processed. However, the two microcore fragments and the microblades may date this site between three and five thousand years ago.

James J. Hester
University of Colorado

Recent Archaeological Research in the Bella Bella Region

Recent archaeological research in the Bella Bella region of the B. C. coast has revealed 185 prehistoric sites; primarily shell middens just above high tide but also including rock wall salmon traps, petroglyphs, pictographs, and burial caves. Excavation in several sites has revealed a presumably continuous occupation from approximately 8000 B. P. to the present. The earliest occupation features the use of microblades followed by a change to bone implements and a maritime economy by about 4500 B.P. Subsequent developments suggest similarities in artifact forms but do not identify with those of Fraser, Delta sequence. Other studies in progress include a detailed examination of use of the environment through time and analysis of the variety of burial patterns present.

Walter M. Hlady
Manitoba Archaeological Society

The Problems of Analyzing Besant Evidence in the Killarney Area of Manitoba

The problems of Besant occupation in the Killarney area are compounded by the fact that there are a great number of campsites and occupations in a fairly small area. There is overlapping of these areas and this is causing some problems. For instance, it is known that the Besant group which left the remains of the Richards Kill Site (C3-TM-2) is not the same group which occupied close by Besant sites such as Richards No. 1 (C3-TM-1), Richards No. 3 (C3-TM-10) or the Randall Site (C3-TM-5), amongst others, on the basis of the type of Knife River Flint which pre-dominates as the basic lithic material. The killsite material is an exceptionally dark phase which has not yet been found in adjacent camp-sites. Separating the number of Besant occupants and determining their relationships to one another presents a number of interesting possibilities. However, because of the particularly dark phase of Knife River Flint at the Richards Kill Site, we expect to be able to locate the campsite. This should give us additional information concerning Besant techniques in possibly identifying which jobs regarding a kill were done at the kill and which were done at the campsite. The absence of ovoid bifacially-chipped blades at the killsite and the utilization of sharpened projectile points and fragments from broken points, may be revealing of butchering practices should ovoid bifaces be reasonably common in the campsite. Pottery in Besant sites in the Killarney area, also presents a problem. There is some but it is scarce. There is a need to enlarge the knowledge we have of the ceramics and the place it had in this manifestation. At the same time, the C-14 dates we have, need to be increased to give a better picture of the time range in the area.

Philip M. Hobler
Simon Fraser University

Archaeological Work in the Bella Coola Area, 1968-70

The results of the first three seasons work on the prehistory of the Bella Coola area are summarized. Sixty-nine archaeological sites have been recorded in the study area. Excavations have been conducted at one of the four population centres in the study area. With further work several phases may be identified. To date two phases have been named. These are the Cathedral Phase and the Kwatna Phase. The former is early, possibly pre-dating the first millennium before Christ. The latter is prehistoric and is defined on the basis of a rather complete assemblage of material culture including a large sample of perishable material from an intertidal deposit. The work done so far sheds some light on but does not yet fully answer the major questions of Bella Coola area prehistory.

William M. Hurley
University of Toronto

Algonquin Park Archaeology

An archaeological survey of 62 lakes located in the southern one-half of Algonquin Provincial Park, Ontario resulted in approximately 35% of the park lake shoreline being investigated with 108 aboriginal and 23 historic sites located and recorded. The aboriginal sites date from Archaic (ca. 2500 B.C.) to late Historic (ca. A.D. 1600). Settlement patterns during the Archaic, Early Woodland, Middle Woodland and Iroquoian stages suggest patterned settlement behavior comparable to that of recent ethnographic accounts. Subsistence economic interpretations for north-eastern North America can be utilized to support

the archaeological interpretations.

William M. Hurley
University of Toronto

Should Archaeologists Profess

Archaeologists are currently being trained in their graduate programmes to orient themselves towards becoming university or college professors. Positions available in the present departments of Anthropology (Sociology) in Canada suggest that the present and planned additions will be rapidly filled. As the average graduate period leading to a Ph.D. is five to eight years, should we not begin to train our graduates to fill other positions?

Larry A. Lahren
The University of Calgary and
Robson Bonnichson
The University of Alberta

The Anzick Site: 24PA506

A Clovis Complex Cremation in Southwestern Montana, U.S.A.

During construction activities, in May of 1968, a Clovis complex (ca. 11,500 years B.P.) cremation was accidentally discovered at the base of a small, talus slope near Wilsall, Montana. Associated with the burned human bone fragments were over seventy-five stone and bone artifacts which include five Clovis projectile points, punched blades, large and small bifaces, end and side scrapers, a blade core and several bone "points", all of which were heavily covered with red ochre. Initially, the site was reported on as "an exercise in frustration". However, recent preliminary work has resulted in the following:

1. an organic sample was procured from a depth of five feet below surface in the area contiguous to the site and has been submitted for C-14 analysis, which may allow initial stratigraphic and temporal control
2. the quarry source for the lithic materials (all of which are cryptocrystalline silicas) has been located some forty miles north of the site in Madison limestone geological formation
3. detailed photography has been completed on 50% of the collection *
4. initial replicative experiments in lithic technology are being conducted.

Future plans include detailed stratigraphic investigations and experiments in lithic technology which will certainly result in presenting important new information about ideology and technology of the Clovis hunters-gatherers.

* Initial funding has been granted for this preliminary work by the Department of Archaeology, The University of Calgary.

Martha A. Latta
University of Toronto

The Robitaille Site: European Influences in a Huron Village

The Robitaille Site is a middle-contact period Huron village which contains considerable European trade material. It was partially excavated during the summers of 1969 and 1970 by crews from the University of Toronto. In a number of ways, trade materials appear to have been incorporated into the Huron cultural matrix, tending to replace both specific tool types and whole traditions. Doubtless this process was also

apparent in the non-material aspects of the Huron culture as well. Within this site, a varying degree of acceptance, or availability, of trade materials is reflected in the different midden deposits. These differences were matched by differences in traditional Huron ceramics, pipes and stone, giving suggestions of the culturally fragmenting nature of European contact.

Timothy C. Losey
The University of Alberta

The Carmie Ranch Site: A Progress Report

The Carmie Ranch Site was located as a result of an intensive archaeological survey of extinct Low Water Lake 50 miles west of Edmonton, Alberta. Initial testing in 1969, supported by the Alberta Provincial Museum and Archives, was followed by full scale excavations made possible by the National Museum of Man. The site occupies several hundred feet of fossil beach and dune deposit on the south shore of the former lake. The deposit is stratified and contains three prehistoric components spanning a period of at least one millennium. Projectile points recovered both from the surface and in the excavations include Duncan-Hanna, McKean, Pelican Lake, and perhaps Besant. The two lowest levels of the site were deposited in an unstable sand and represent butchering and meat processing activities. Other areas include bone boiling pits, hide working areas and stone tool manufacture. The uppermost level of occupation exists in a stable forest horizon and is distinct in all respects from the other levels. Samples for carbon 14 assay are available from the two lowest levels but the uppermost is severely contaminated. Paleo-environmental research planned for 1971 will add a further dimension to the site and perhaps illuminate the environmental shift evident in the archaeological deposit.

Timothy C. Losey
The University of Alberta

The Fort Enterprise Project: A Preliminary Report

The Fort Enterprise Project, sponsored by the Boreal Institute for Northern Studies, was conceived to coincide with the Northwest Territories' centennial celebrations, 1970. The primary purpose of the expedition was to confirm and excavate the remains of Sir John Franklin's 1820-21 winter headquarters for arctic shores exploration. The site, located on Winter Lake, 140 miles north of Yellowknife, received preliminary testing during five weeks in August during which one of three structures comprising the site was partially excavated. The contemporary approach of environmental archaeology at Fort Enterprise involved an interdisciplinary investigation which included specialists from the natural sciences and humanities. Data gathered as a result greatly augmented the understanding of certain features and details of the site. Pollen samples obtained in a unique situation from beneath the excavated structure allows unusual age control normally out of reach for carbon 14 dating. Botanical specimens gathered in the general area are being compared to those reported by the Franklin party 150 years ago. It is hoped that detailed faunal analysis of material recovered from a large midden area will reveal aboriginal butchering techniques as well as to provide a partial faunal inventory. Soils reconnaissance coupled with comparisons of past and present weather data and pollen assemblages may shed light on the nature and development of the Boreal Forest/Barrenlands transition.

Robert McGhee
National Museum of Man

Mackenzie Eskimo Archaeology

Work in the Mackenzie Delta area N. W. T. during the summers of 1969 and 1970 has revealed a heavy occupation of the area over the past 800 to 1000 years. The Thule ancestors of the Mackenzie Eskimo appear to have developed a unique beluga hunting adaptation at the time that they first settled the area around the mouth of East Channel, and maintained this pattern until the historic period. Minor stylistic shifts alone reflect the considerable changes in Thule-Recent Eskimo cultures elsewhere in the central and western Arctic. Earlier occupations of the East Channel area are represented by only two meagre collections; an Arctic Small Tool tradition surface collection from Atkinson Point, and a possibly Norton culture layer at the base of the large Kittigazuit midden.

Jack D. Nance
The University of Calgary

Computer Analysis of Projectile Points: A Study in Methodology

A computerized analysis of late Plains Side-notched projectile points is attempted, utilizing the IBM-360/50 computer of The University of Calgary Data Centre and a modified version of Bonham-Carter's (1967) cluster analysis program in FORTRAN IV. A total of 107 projectile points from sites Dlpd-1 (the Upper Kill Site), Dlpd-2 (the Lower Kill Site), Dlpd-3 (the Ross Site) and Dlpd-4 (the Grassy Lake Cairn) excavated by Forbis in 1957, are subjected to an Average-link, Unweighted, Pair-group cluster analysis based on a Q-mode correlation matrix of product-moment correlation coefficients (Pearson's r). The coefficients were computed from standardized characters, numbering 53 for each object involved in the analysis. The methodology followed is basically that advocated by Sakal and Sneath (1963). The study, largely methodological in nature, reviews and evaluates the use of cluster analysis in analyzing archaeological materials. The analysis, involving both within and between-site comparisons of individual artifacts is aimed toward arriving at some reliable techniques for classifying artifacts and interpreting the results of these classifications. In the latter endeavor conventional statistical techniques such as χ^2 (Chi Square) are implemented and prove valuable.

David Sanger
National Museum of Man

Prehistory of the Southern Interior Plateau of British Columbia

Although regional sequences are still all too few, some area differences are beginning to emerge. Three distinct regions, the Kootenay, the Okanagan, and the Fraser-Thompson, are discussed in terms of the sequence of cultural events, relationships between each other, and relationships with adjacent regions beyond the limits of the Interior Plateau.

Howard Savage
University of Toronto

Range Extension of Faunal Species by Archaeological Sites Findings

Identification of avian faunal material from archaeological sites in Canada has recently extended the distribution range of the Trumpeter Swan and Sandhill Crane eastward into the province of Quebec, and

the breeding range of the Sandhill Crane in Ontario northward into the Bruce Peninsula. The presence of Woodland Caribou in southern Ontario is indicated by recent findings at Inverhurn, Maurice, and the Robitaille sites. Pitfalls in faunal identification, and unwarranted assumptions of range extensions of mammalian and avian species from insufficient archaeological evidence is discussed.

Jason W. Smith
The University of Calgary

The Ice Mountain Microblade and Core Industry

One of the more important results of recent archaeological investigation of the Stikine-Tahltan region of the Ice Mountain Archaeological Project Area, has been the recovery of a series of artifacts believed to represent a component of the Northwest Microblade Tradition. This paper presents a metric, formal and technological analysis of this industry and discusses its relationship to similar industries known in Asia and America. Finally, the author proposes that an 'East Asian-Northwest American Microblade Tradition' be established as an analytic unit in the analysis of correlative material in these areas.

David M. Stothers
The Ontario Archaeological Society (Inc.)

The Princess Point Complex: A Late Hoodland Manifestation in Southwestern Ontario

The Princess Point Complex is a newly defined early Late Woodland manifestation which was centered primarily in the Niagara Peninsula - Grand River Valley region of Ontario. This complex would seem to represent a temporal precursor to the later Glen Meyer branch of the Ontario Iroquois tradition. The later manifestation of the complex suggests cultural continuity with the Glen Meyer branch. The strongest cultural affinity of the Princess Point complex is to the early Owasco (Carpenter Brook) of New York State, although other affinities are evident.

A. H. Stryd
The University of Calgary

The Mitchell Site: A Multi-Component Pithouse Site Near Lillooet, British Columbia

Recent archaeological excavations at the Mitchell Site (EeRI-22) near Lillooet in south-central British Columbia, have revealed a series of house occupations estimated to date from about the fifth century B. C. to the historic time period (A. D. 1800⁺). Five prehistoric and two historic components were defined, based on cultural stratigraphy and a material culture sample of 5,800 items. The prehistoric components provided valuable cultural-historical information on the poorly known pre-Kamloops Phase Late Period which was initially defined by Sanger at the nearby Lochnore-Nesikep Creek Locality. Some of the more significant conclusions which can be presented include the following: (i) the cultures of the early Late Period, dated from ca. 500 B.C. to A.D. 1000, appear to have evolved in situ from the cultures of the preceding Upper Middle Period with no evidence for either population shifts or major cultural innovations other than the introduction of the bow and arrow; (ii) the formal or structural attributes of the semi-subterranean pithouse dwelling such as overall size, geometric shape, kinds of floors, the absence or presence of retaining walls, etc., do not seem to have temporal significance and instead are probably related to local environmental conditions and/or familial traditions of house construction; and (iii) the deposition of Bridge River volcanic ash in the interior Fraser Valley in the first millennium B. c. did not significantly alter the local faunal and floral communities, and, thereby, did not change the aboriginal

subsistence activities which were dependent on them.

Leigh Syms
The University of Alberta

Investigations in the Souris River Drainage Basin of Southwestern Manitoba: A Preliminary Report
Research, supported by a contract from the National Museum of Man, was directed towards developing a prehistoric culture sequence for southwestern Manitoba and understanding the patterns of environmental selection and adaptation. Survey and excavations focused on the Gainsborough Creek Valley, the confluence of this creek with the Souris River and the prairie grass land nearby. The past field season represents the initial phase of a long term research in the area. The survey yielded sites with Paleo-Indian index point types such as Agate Basin, Hell Gap, Alberta and Scottsbluff, as well as the full range of index points for the Middle and Late Prehistoric Periods. The known concentrations of burial mounds were augmented with additional finds. Surface manifestations of prehistoric pottery indicate that there is a complex pattern of numerous Woodland phases as well as examples from the Missouri River traditions. Test excavations resulted in a predominantly ceramic artifact inventory at two single component woodland sites and a multi-component bison butchering and, habitation site. The latter site indicates evidence of piling bones during butchering and of smashing and boiling bones, possibly for extracting marrow and fat.

Norman E. Wagner
Waterloo Lutheran University

Computer Studies of Ontario Iroquois

J. V. Wright has gathered and tabulated useful data based on typological analysis of Ontario Iroquois in his well known Ontario Iroquois Tradition. In studying this data, Wright employed the Brainerd-Robinson method of analysis to arrive at a measure of agreement among the various sites. The drawback of this approach is that it forces a premature grouping of sites to arrive at workable units and also works with sites in single pairs. More sophisticated statistical tests are suggested as being appropriate. The coefficients can be evaluated in several ways yielding quite different results. These in turn can be compared with Wright's conclusions. While the future clearly lies with attribute analysis, Wright's data provides a measure of the potentials and dangers in using computers during the early stages of research. In fact, clustering attributes is a straight forward outgrowth of the approach suggested here.

Dean Knight
University of Toronto

The Archaeology of the Kleinburg Ossuary

Excavation of the Kleinburg Ossuary (AlGv-1) in south western Ontario has raised some doubts about the use of ethnohistorical documents as aides in determining excavation procedures. It is suggested that very guarded use be made of such documents before beginning excavation. Without sufficient care the ethnohistorical material can lead the archaeologist into making false assumptions about the nature of a site. Such assumptions can then lead to the destruction of valuable cultural information during the excavation.

Roscoe Wilmeth
National Museum of Man

The Northern Plateau

Field work in the Northern Plateau has been limited to survey and excavation at a rather small number of widely separated areas. A start has been made on the development of local sequences, involving the establishment of a variety of chronological frameworks which are not always easy to correlate with other areas. The present paper is a preliminary attempt to compare the local sequences, and if possible, to join them in a single chronological scheme.