PER
E78
B9A68a

THE MIDDEN

Publication of the Archaeological Society of British Columbia ISSN 0047-7222 Vol. 29, No. 4 Winter 1997

SERIALS SERVICES
RECEIVED
MAY 15 1998
UNIVERSITY OF VICTORIA
McPHERSON LIBRARY

THE MIDDEN

Published four times a year by the
Archaeological Society of British Columbia

Editorial Committee

Acting Chief Editors:	Robbin Chatan (215-1746) cairo@direct.ca
	Heather Myles (274-4294) srmyles@unixg.ubc.ca
Field Editor:	Richard Brolly (689-1678) arcas@istar.ca
News Editor:	Heather Myles
Publications Editor:	Robbin Chatan
Production :	Fred Braches (462-8942) braches@netcom.ca
Subscriptions:	Fred Braches

SUBSCRIPTION is included with membership in the ASBC. Non-members: $14.50 per year ($17.00 USA and overseas), payable in Canadian funds to the ASBC. Remit to:

Midden Subscriptions, ASBC
P.O. Box 520, Bentall Station
Vancouver, B.C. V5C 2N3

SUBMISSIONS: We welcome contributions on subjects germane to B.C. archaeology. Guidelines are available on request. Submissions and exchange publications should be directed to the appropriate editor at the ASBC address.

Copyright

Contents of ***The Midden*** are copyrighted by the ASBC. It is unlawful to reproduce all or any part, by any means whatsoever, without the Society's permission, which is usually gladly given.

Contributors this issue

Brian Apland, Helmi Braches, Stan Copp, Joanne Curtin, Farid Rahemtulla, and Terry Spurgeon.

ARCHAEOLOGICAL SOCIETY OF BRITISH COLUMBIA

Dedicated to the protection of archaeological resources and the spread of archaeological knowledge.

President
Joyce Johnson (730-8468)
joycej@unixg.ubc.ca

Membership
Caroline Milburn-Brown (987-8787)
robert_milburn-brown@b.c.sympatico.ca

Annual membership includes 1 year's subscription to ***The Midden*** and the ASBC newsletter, *SocNotes*.

Membership Fees

Individual: $25 Family: $30 Seniors/Students: $18

Send cheque or money order payable to the ASBC to:

ASBC Membership
P.O. Box 520, Bentall Station
Vancouver, B.C., V6C 2N3

ASBC on Internet
http://home.istar.ca/~glenchan/asbc/asbc.shtml

Affiliated Chapters

Nanaimo Contact: Rachael Sydenham
Internet: http://www.geocities.com/rainforest/5433
Programme Chair: Lorrie Lee Hayden
Meetings the second Monday of the month at Malaspina University College, Department of Social Science.

Victoria Contact: Tom Bown (250-385-2708)
Internet: http://www.museumsassn.bc.ca/~bcma/museums/asbc
Meetings on the third Thursday of the month at 7:30 pm at the Royal British Columbia Museum, Victoria.

The **British Columbia Heritage Trust** has provided financial assistance to this project to support conservation of our heritage resources, gain further knowledge and increase public understanding of the complete history of British Columbia.

BRITISH COLUMBIA Heritage Trust

ASBC Diary

MEETINGS featuring illustrated lectures are held on the second Wednesday of each month (Except July and August) at 8:00 pm. Meetings are usually held at the Auditorium of the Vancouver Museum at 1100 Chestnut Street in Vancouver. New members and visitors are welcome.

May 13 - Speaker: Peter McNair.
Down from the Shimmering Sky; Masks and Masking on the Northwest Coast

June 10 - Speaker: Dr. Rolf Ludvigsen.
The Fossil Heritage of British Columbia

THE MIDDEN

TOOTHLESS LEGISLATION?

Earlier this year, a couple from Maple Ridge and a developer were charged under the Heritage Conservation Act for building a subdivision on a designated heritage site. The site, DhRp35, adjacent to the Meadow Gardens Golf Course, had been investigated in 1981 by Willie Peacock and was identified as a seasonal fishing camp of the Locarno Beach culture. The owners knew that their property extended over this archaeological site.

So far, charges under the Heritage Conservation Act have not occurred often, and as a result this case received much attention, with the local newspaper labelling the prosecution as "manifestly unfair" and portraying the offenders as victims whose rights as property owners were being unreasonably "abrogated". Moreover, under the heading "It's a dump", the newspaper did its best to belittle the significance of the site.

There are two aspects about this case that are disturbing: one, the kind of coverage it received in the papers — after all, newspapers help to shape the public's view —, and two, that the site *was* destroyed although it was known as an archaeological site. How could the municipal departments issuing building permits allow the development to go ahead? In other words: why did the current Heritage Act not prevent this from happening? Or is the Act, as I have heard it referred to, a piece of "toothless legislation"?

In an article in this issue of *The Midden*, Archaeology Branch Director Brian Apland explains the workings of and defends the Heritage Act. If we believe Apland, the Act's real value lies in the fact that it will serve as a deterrent, although, given that in its present form the Act has been in effect for only a few years and archaeological site transgressions do not seem to be a daily occurrence, this has yet to be proven. As Apland points out, enforcement of the legislation resides with the RCMP, in the same way as the Motor Vehicles Act, for example, is enforced by the police.

However, to stay with the example, while the police have been trained to detect and ticket traffic violators, it is much less obvious that they make any effort to apply the existing heritage legislation. In other words, while legal enforcement of the Act is theoretically available, it is not clear who in practice monitors, detects and reports contraventions to the Heritage Conservation Act. Where were the Mounties when the first bulldozer appeared on the Maple Ridge site? ⇨

Front Cover: See: "Stone Tools, ..." pages 5-7

The 1994 excavation of Rivermouth Trench at Namu. Cultural deposits at the site extend to approximately four meters in depth, and span some 10,000 years. Project participants included members of the Simon Fraser University 1994 Field School, and staff and students from the Heiltsuk Cultural Education Center. Photo by F. Rahemtulla.

Table Of Contents

What is most deplorable about this situation is that it used to be better. During the seventies and eighties, a system of volunteer archaeological wardens, or Regional Advisors as they came to be called, operated under the direction of the Heritage Conservation Branch throughout British Columbia. Some Regional Advisors were archaeologists, but many were just members of the public with an interest in archaeology. They knew where the archaeological sites in their area were located, and kept their eyes open for impending development or other threats to archaeological resources. They knew what to do and who to contact in case disturbance to a site was imminent.

Considering the importance of the task carried out by these archaeological watchdogs, the government certainly had a good deal. Since all the wardens were volunteers, they never received any pay for their work. Once a year the wardens from the entire province, thirty at the peak of the program, were invited to a joint meeting and reception for which the government paid, and participants were reimbursed for travel costs. Other expenses claimed by individual wardens as incurred in the execution of their work can't have amounted to much.

Therefore it remains a mystery why the government withdrew its support for this program. It seems that the restructuring of heritage protection in B.C. was envisaged, involving local heritage groups in the task and letting them do the bulk of the "watchdog" functions. This intention was spelled out in a letter notifying the Regional Advisors of the termination of the program dated 21 September 1987 and signed by the then Tourism, Recreation and Culture Minister Bill Reid. However, why give up a proven system before anything to replace it is created, especially since the local groups, such as the Archaeological Society of B.C., were never approached?

Clearly, something is urgently needed to ensure ongoing monitoring of archaeological resources in order to prevent further destruction. Something like a warden system might help to do this. But it is not enough. Raising the awareness of heritage conservation on the part of the police and municipal planning departments is equally needed. Apland is apologetic for the police if they "...[don't] place a high priority on investigating [a complaint] that is unfamiliar and perhaps difficult to substantiate." Why should the police be unfamiliar with heritage legislation? Why are city officials not expected to withhold building permits when developers apply for them on archaeological sites? Obviously, officials need to be educated in the application of the heritage legislation; perhaps then they will take responsibility and try to protect the resources, rather than dealing with the aftermath once destruction has taken place. And once city planners and police are more knowledgeable, perhaps awareness of archaeology will trickle down to reporters and ultimately the public.

The ASBC is willing and eager to play a bigger part in monitoring archaeological resources and raising public awareness of archaeology. But we don't think we should be doing this alone. We expect that the Archaeology Branch, in addition to 'administering' the Heritage Conservation Act by issuing permits to those people who abide by the act, will also do its share in working towards better *protection* of archaeological resources.

Helmi Braches

Helmi Braches, ASBC Vice President, has an MA in linguistics and has been active on the Executive of the ASBC for 22 years, including two years as president.

NEWS VIEWS

It's a dump

The prosecution of Ann and Steve Telep under the Heritage Conservation Act is manifestly unfair.

An archaeological study completed in 1981 determined that the site had been used as an autumn fish camp by members of the Locarno Beach tribe 3,000 years ago. The study also turned up some campfire ashes and a few fish bones – in other words, an ancient garbage dump.

The protection and preservation of man-made artifacts has a valued place in any civilization but there should be reasonable limits placed on the ability of society to abrogate the rights of private property owners.

For many years, the Teleps didn't develop their property because they wanted to preserve its natural attractions. Other than their own original home which they built decades ago, they did little with the land until after Maple Ridge had installed a sanitary sewer across the west side of the property. The archaeological studies were also carried out long after development of the adjacent golf course which likely shares the dubious distinction of having encompassed part of the ancient camp.

The lawyer acting for the Teleps says this may be the first actual prosecution under the Heritage Conservation Act. If so, it would be a sorry beginning.

If the charges against the Teleps can be justified, we should all pray that Dave Alexander never unearths ancient ashes or other prehistoric garbage on the site of "his" Whonnock junkyard.

Surely there must be better ways to spend public funds than the prosecution of Ann and Steve Telep.

– News editorial by Sandy Macdougall

Editorial in the Maple Ridge/Pitt Meadows News, Sunday, February 8, 1998

"The Telep Site (DhRp 35) is rated as a highly significant heritage resource. Its contribution to scientific knowledge is considered to be very substantial, especially as it is a unique site that has shed important new light on the poorly understood settlement and subsistence patterns of the Locarno Beach Culture Type".

"In view of the significance of the site as a rare example of a seasonal specialized harvesting camp from an early Culture Type, it is recommended that every effort be made to dissuade the landowners from bulldozing the site."

(Quotations from "The Telep Site: a late autumn fish camp of the Locarno Beach Culture Type", by William Peacock, report submitted to the Heritage Conservation Branch, August 1982)

HERITAGE CONSERVATION ACT - ENFORCEMENT

by BRIAN APLAND

Concern about disturbances to archaeological sites or the activities of a relic hunter often prompt members of the general public to call the Archaeology Branch to report such incidents. Invariably, callers request that the Branch "enforce" the *Heritage Conservation Act* and expect it to "lay charges" against the alleged offenders. In the discussion below, I outline the legislation and the roles and responsibilities of the Branch and other agencies, with respect to the administration and enforcement of that Act. I also discuss how enforcement procedures are most effectively implemented.

Legislation

The legislation which regulates activities affecting archaeological sites is the provincial *Heritage Conservation Act* (*HCA*), formally referenced as the "*Heritage Conservation Act* [*Revised Statutes of BC 1996, Chapter 187*]". Several years ago I wrote an article for ***The Midden*** titled "Archaeological Site Protection" (Apland, 1992). At that time, the province was undertaking a comprehensive review of the *HCA* as part of upgrading legislative support for facilitating the protection and conservation of heritage resources throughout the province. As a result of that process, the current legislation reflects numerous significant amendments which came into force on October 13, 1994.

Amendments which directly affect protection of archaeological sites included: replacing the limited list of archaeological site types noted in previous legislation with a clause that covers all archaeological sites pre-dating 1846 (Section 13(2)(d)); providing specific requirements for obtaining inspection and investigation permits (Section 14); making orders and regulations under the *Act* binding on the Crown (Section 5); providing for all matters affecting inspections and investigations permitted under the *HCA* to prevail where conflicts may arise with other legislation (Section 6); and significantly, increasing penalties for transgressions of the *HCA* (Section 36(2)).

The legislation does not, in and of itself, protect archaeological sites and data: rather, it facilitates their protection and conservation through a series of prohibitions regarding activities that can affect sites; provision for regulating such activities through a permitting process, and providing significant penalties for contravention of the prohibitions. Interestingly, almost immediately after the amendments took affect, there was a noticeable increase in the number of permit applications for archaeological impact assessments related to proposed land development activities. While in general, the number of permit applications received by the Branch had been consistently rising at an annual rate of between 8 and 10%, in 1995 there was a 66% increase.

The forestry sector accounted for the single most dramatic rise in impact assessment applications. This increase in forestry related archaeological resource management was heavily influenced by the signing, in June 1994, of a protocol on heritage resource management in Crown Forests negotiated by the Archaeology Branch and the Ministry of Forests. That protocol preceded and complemented both the amendments to the *Heritage Conservation Act* and the *Forest Practices Code*. Although some people (Brolly, 1997) have attributed the noted increase in forest related archaeological resource management solely to the *F.P. Code*, it is worth noting that the Code only contains limited reference to heritage resource management and was not fully brought into effect until late in 1996.

While it is encouraging to see increased co-operation and willingness to follow appropriate resource management procedures (i.e., the permit process), what happens in cases where a person and/or company ignores the prohibition provisions of the legislation? This is where legal enforcement of a law comes into play. To be effective, most laws, including the *HCA*, contain a provision making it an offence to contravene specific sections such as the prohibitions. Coupled with the offence provision will normally be a set of penalties. Penalties are designed to serve two important purposes: firstly, as the term implies, to provide a punishment for a purposeful offender; secondly, and perhaps more importantly, to provide a deterrence to dissuade a person from offending in the first place.

To be effective however, penalties can only serve those purposes if they are taken seriously by those who might consider ignoring the legislation. Unfortunately, there has not been a strong history of prosecutions under provincial heritage legislation. To date, the only conviction occurred in 1972, using the *Archaeological and Historic Sites Protection Act* of that time, and resulting in a $300 fine (maximum fine could have been $500). In light of this limited success, it should not be unexpected that some people may believe that in the unlikely event of being caught or prosecuted, the chances of convictions are not great.

The amendments to the *HCA* were designed to correct some of the problems affecting enforcement. It raised the level of penalties (maximum fines were previously considerably lower than the costs of conducting even initial archaeological investigations), eliminated limiting wording in the prohibitions section (i.e., it had to be proven that an alleged offender had "knowingly" damaged a site which more often than not resulted in a decision by Crown Counsel not to proceed with charges), and it clarified that the prohibitions apply to all types of pre-historic era archaeological sites.

Enforcement / Roles and Responsibilities

The *Heritage Conservation Act*, like most legislation, does not have its own "enforcement" provision. Acts which contain their own enforcement provision empower the responsible minister to employ persons as enforcement officers (e.g. the *Environment Management Act* empowers the Ministry to employ conservation officers), and stipulate the duties and powers that such an enforcement officer can carry out. In the absence of such a provision, enforcement of the Act rests with the municipal police or the RCMP. An analogous situation is in enforcement of the prohibitions under the *Motor Vehicles Act*. It is the municipal police and RCMP who provide enforcement regarding Motor Vehicle offences even though it is the Motor Vehicles Branch that administers the legislation.

The Archaeology Branch administers the *Heritage Conservation Act* (i.e. maintains the Provincial Heritage Register, and manages the archaeological permitting process). It does not, nor is it empowered to, enforce the Act. When there is a contravention of that statute, the police must be asked to investigate the circumstances of the alleged offence and report to Crown Counsel with a recommendation as to whether charges should be laid.

Crown Counsel and only Crown Counsel has the responsibility of determining whether charges will be laid. Crown Counsel's decision must be based on two determinations: 1) whether there is a substantial likelihood of a conviction, based primarily on an assessment of the evidence; and 2) whether a prosecution is in the public interest. The latter determination takes into account the seriousness of the allegations, the likelihood of a conviction resulting in a significant sentence, the offender's degree of culpability in relation to other parties; the likelihood of the offence being repeated, etc.

If someone is aware of, and concerned about, a possible contravention of the *Heritage Conservation Act*, he or she should report those concerns directly to the local police rather than just calling the Branch. The Branch should be informed of the report in order to provide police with information on the site(s) of concern from existing records, and the provisions of the *HCA*. If a report is made only to the Branch, all the Branch can do is relay the report to the local police, who will then need to contact the person who made the initial call.

Anyone who reports an offence should be prepared to swear out or sign a complaint. Otherwise police who are extremely busy with routine complaints may not place a high priority on investigating one that is unfamiliar and perhaps difficult to substantiate. Often, people reporting alleged offences wish to remain anonymous, and decline to swear out a complaint. This is not something amending legislation or changing government procedures can address. It is the responsibility of the complainant to come forward and give first hand information to the investigating agency. In making a report, it is also useful to ask the police for a case number, so that the issue can be monitored.

It is also important to be aware that there is a time limit of six months to lay a charge pursuant to the *HCA*. This significant information is not widely understood. In British Columbia, if a statute does not specifically identify a different time period for laying charges, the *Offence Act* automatically imposes a six month limitation period. The *HCA* has never contained its own period of limitation clause.

The six months imposed by the *Offence Act* begins counting from the time of the offence, not the time it was reported. Therefore, before making a complaint and expecting legal action to follow, a person must be reasonably sure when the offence occurred. Offences should be reported as soon as they are discovered, to enable the police time to gather sufficient evidence and report to Crown Counsel, then for Crown Counsel to evaluate the report to make a decision as to the laying of charges (both those agencies are extremely busy).

If the provincial heritage legislation is to work effectively, we all have a responsibility to understand the system and learn to apply it meaningfully.

References:

Apland, B. 1992, "Archaeological Site Protection," ***The Midden*** 24(3):5-7.

Brolly, R., 1997, Fieldwork News / British Columbia Archaeological Consulting Firms / Arcas Consulting Archaeologists Ltd. ***Canadian Archaeological Society Newsletter*** 17(2):17-18.

Brian Apland received his MA in Archaeology from Simon Fraser University in 1977. He has worked as an archaeological consultant in all areas of British Columbia, as well as Alberta, the Northwest Territories, and the states of Montana and Idaho. He is currently Director of the Archaeology Branch in Victoria.

THE FUTURE OF THE CULTURE LIBRARY IN DOUBT

Due to budgetary cutbacks in programmes and agencies within the Ministry of Small Business, Tourism and Culture, the Culture Library will be without funding during the 1998-99 fiscal year, beginning April 1st. To date, the library has been funded on a day to day basis, and therefore it is uncertain how long the library will remain open. Closure will threaten access to the library's complete holdings, which includes unpublished permit reports and other reports. An update on the current situation regarding the Culture Library will be presented in the next issue of *The MIDDEN.*

STONE TOOLS, DEBITAGE AND HUMAN BEHAVIOUR

by Farid Rahemtulla

Over the course of the last twenty years or so several new and exciting developments have taken place in the study of archaeological stone tools. New methods in lithic analysis have bolstered our ability to understand how stone tools were made, and a new theoretical framework places these stone technologies within the wider context of human behaviour. This theoretical framework is generally referred to as the study of "technological organization" and has greatly enhanced stone tool research by essentially broadening our conception of pre-contact technologies, and what we can learn from them in archaeological contexts. The central focus is on behaviourial concerns, or more specifically, what chipped stone technologies can reveal about aspects of social and particularly settlement organization over landscapes. In this article a brief overview of this theory and some new analytical methods is presented, followed by an example of their application in an analysis of lithic debitage from the site of Namu, on the central coast of British Columbia.

The Study of Technological Organization

Within the span of the last two decades, there has been growing acceptance of the notion that the entire cycle of stone tool production and discard is closely tied to human settlement and socio-political organization. Access to raw materials, group mobility and settlement patterns, functional requirements, and social constraints are some of the criteria which people needed to consider when designing and producing their lithic technologies. This immediately suggests that stone tools were far from simplistic devices designed to merely cut, shoot, and scrape. Instead, they were the result of sometimes complex human decision-making which could predicate the survival and in extreme cases, the demise of individuals or groups.

The roots of the study of technological organization lie in the now famous debate on Mousterian variability between the chief proponents Lewis Binford and Fran□ois Bordes. At the risk of over simplifying the Mousterian Debate, the contentious issues centred on the meaning of variability in and particularly between Middle Palaeolithic assemblages in western Europe. The overarching dispute focused on the underlying cause of the differences in these assemblages. Bordes believed that these differences reflected different groups of tool-makers, each of whom had their own tradition of making stone tools. This explanation invokes the notion of ethnicity in that these different groups would have been culturally distinct from one another. Bordes spent many years studying the assemblages and constructed detailed typologies which are still in wide use today. Artifact forms and shapes, along with artifact frequencies were the key criteria in explaining assemblage variability via the theory of cultural differences. An important underlying implication in this is that each group would make only a small number of culturally sanctioned tool forms, regardless of the tasks required of the technology.

Binford took exception to this explanation, and suggested that Mousterian variability is due to functional differences between assemblages. He argued that groups of tool-makers could not be expected to use the same tools for different purposes over the landscape. Instead, Binford saw the differences between assemblages as reflecting different activities over the landscape. Rather than using explanations of cultural traditions Binford argued the other extreme, that the shapes of these stone tools and the frequency of their occurrence was related strictly to the activities that occurred at that site. The seminal points which emerged from this debate are that stone tool shapes and forms are not necessarily the result of only cultural templates. By extension and far more importantly, lithic technologies must be examined within the larger context of human settlement organization and land-use. Tool-makers in many cases had to plan ahead and consider many variables when designing and making their stone tools.

During the thirty years or so since this important debate took place, many advances have been made in understanding the factors which govern the production of stone tools. For instance, access to raw materials is a primary consideration in designing and making stone tools, as is the quantity and type of raw material available. Accessibility could be constrained either physically for instance by the presence of mountains or geographic distance, or socially for example through hostilities with neighbouring groups. In both cases access to raw material could be made difficult for a particular group of peoples, and this would have to be factored into how they made use of their available supply of toolstone.

As an example, if a hypothetical group of hunter-gatherers was preparing to move on foot into an area with no known raw material sources, they would more than likely use at least one strategy which would maximize raw material conservation. Bifaces and blade technology are two commonly cited strategies for toolstone conservation. Well made bifaces could serve not only as tools and projectiles, but also as cores from which to extract sharp-edged flakes. In this scenario, we would also expect less discard over the landscape due to higher conservation effort. For people highly dependent on stone tools for survival, running out of raw materials could prove to be detrimental. Therefore planning ahead would be necessary.

Conversely if the same group were moving into an area with known large quanti-

ties of raw material, they may opt to use different reduction strategies, such as expedient cores and flakes. With a constant and easily accessible raw material supply, there would be less pressure on tool-makers to conserve raw materials. This could result in a different suite of stone tool types, as well as a greater frequency of discard over the landscape. Although this is a simplistic example, it serves to demonstrate that stone tool morphology and discard over the landscape is in large part a reflection of complex human decision. Other important factors which tool-makers had to consider include; the level of group mobility and how much raw material could be transported, the kinds of tasks which needed to be performed with the lithics, and in some cases cultural traditions would have dictated tool forms and shapes.

New Methods: Lithic Debitage Comes of Age

The realization of the close connection between organization of lithic technology and human settlement leads to the corollary that lithic debitage can be of great aid in revealing land-use patterns. In opposition to projectile points and tools, lithic debitage is not usually transported by people, and therefore this class of artifacts can normally be assumed to be in the original place of discard. By learning how to "read" debitage patterns over the landscape then, archaeologists can begin to determine the kinds of activities that were going on at various locales.

This idea was initially developed by William Henry Holmes in the late 19th Century. Holmes studied pre-contact lithic quarries in the American Midwest and had a special fascination for debitage. He was aware that an understanding of stone tool reduction methods could lead to the decipherment of debitage patterns in archaeological contexts. Holmes was one of the first researchers to suggest the possibility of interpreting sites containing only lithic debitage, even in the complete absence of projectile points and tool types.

In between the time of Holmes' work and the period beginning roughly thirty years ago, studies on lithic debitage were cursory if conducted at all. Few people realized the potential information in debitage, and even fewer devised appropriate methods for debitage analysis. During the last three decades, several researchers have strived to understand the kinds of variables that need to be examined and recorded, and what these variables can tell us about the reduction of original toolstones. Although far from perfect, current methods do allow lithic analysts to gain valuable information by recording only a small number of characteristics on lithic debitage. These methods have been successfully used in a number of archaeological endeavours throughout the world. In British Columbia this kind of work has been seldom applied, the notable exceptions have been in the Interior of the province through the work of David Pokotylo, Marty Magne, and Brian Hayden and his associates. Where debitage analysis has been applied, it has been in the context of the overall lithic analysis which includes tools.

There are two general categories of lithic debitage analysis, both of which encompass a number of different techniques. The first category is composed of techniques which examine a suite of attributes such as number of flake scars on individual pieces of debitage, while the second category focuses on analysis of groups or aggregates. Aggregate analyses involve size sorting and quantification of variables on groups of debitage as opposed to individual specimens. Techniques in the first category are time consuming particularly if the analyst must deal with a large volume of debitage. The aggregate methods counter this problem by reducing the amount of time required for analysis, however they have other disadvantages. One important point which crosscuts most techniques is that a suitable reference collection is absolutely necessary in order to conduct debitage analysis. The analyst should have access to data from an experimentally produced reference collection with which to compare archaeological samples. Traditional reference collections have included cores, flakes, and all other fragments from a number of different reductive operations such as unprepared and prepared cores, unifacial and bifacial, etc.

An Archaeological Example

An analysis of lithic debitage from the site of Namu was recently completed, as part of a preliminary study of a larger assemblage. Namu is located on the central coast of B.C. and was the focus of a University of Colorado research program in the late 1960's. Subsequently in the 1970's and in 1994, Simon Fraser University and the Heiltsuk Cultural Education Centre conducted excavations under the directorship of Roy Carlson. The site is important for many reasons, one of which is that it contains a large volume of archaeological deposits which begin close to 10,000 years ago and end with European contact. The focus of the current project is on the chipped lithics from the first five thousand years known as the "Early Period". Carlson (1995) has provided chronostratigraphic and culture-historical analyses of the Early Period stone tools from Namu, the current research centres on issues relating to technological organization.

The main raw materials used at Namu were andesite and basalt, followed by a number of other raw material types which were used to a lesser extent. These raw materials are not what one would qualitatively classify as highly desirable or easy to work with, but they are generally widespread in the region. They tend to be relatively coarse grained and physically very hard, which raises the level of difficulty in knapping these toolstones. Nevertheless the inhabitants of Namu persisted in using these raw materials and reducing them in a number of ways, a testament to their skill as toolmakers. Interestingly, there is a fair amount of imported obsidian in the assemblage, but this raw material is used almost exclusively for microblade production.

The first round of research involved an analysis of debitage from the 1978 excavation (Rahemtulla 1995). Some 6,000 specimens were examined, and three techniques were utilized. Two of these techniques involved individual examination of every flake for a suite of attributes, while the third technique consisted of an aggregate approach which has been termed "mass analysis." A primary goal in debitage analysis is to decipher how raw materials were being reduced, in terms of knapping strategies. This is represented in the overall patterning exhibited by relevant attributes. The three analytical techniques used in the Namu assemblage revealed some similarities in patterning, however some differences were also observed.

One of the key patterns borne out by all three techniques was that the assemblage contained a variety of different reduction strategies. There were no trends towards specialized toolmaking or conservation of raw materials (with the exception of the obsidian), and that the entire reduction sequence starting with initial core reduction to final tool preparation is represented.

Other pertinent inferences which emerged from this analysis revealed that for the period between 10,000-5,000 BP:

1) There is impressive continuity in choice of raw materials and reduction strategies;

2) The chief raw materials are being brought in from outside the local site area, either as very large cores and/or flakes. There is also some indication of stockpiling of these raw materials;

3) A lithic "dump" may have been established very early in the site's history, and used as a midden (including organics) for thousands of years. The actual knapping therefore took place elsewhere on the site; and,

4) There is some evidence for trampling of flakes.

This patterning has been noted in a number of post-5,000 BP village settlements in the New World, but not earlier. When viewed together, these lines of evidence suggest that during the Early Period Namu was already a sedentary or semi-sedentary settlement. This independently supports Aubrey Cannon's similar interpretation based on his analysis of the faunal material from the site. For chipped stone we would expect village inhabitants to manufacture a diversity of tools, stockpile raw materials and use them as needed, and to keep living areas clean of harmful lithic debris by dumping this material in designated zones. Moreover the enormous time span exhibited in the radiocarbon chronology, combined with the depth and extent of deposits intuitively support the notion that this was more than just a special activity site.

This working hypothesis of Namu as an Early Holocene village counters the prevailing belief amongst many archaeologists, that sedentary life on the Northwest Coast developed only after 5,000 BP. The key point here however is that under certain circumstances, lithic debitage can reveal much behavioural information about people in the past. For the research at Namu, this is an exciting result which could have much larger implications if it can be further supported. However there is still much work to be done, the next round of research is currently under way.

Summary

The study of technological organization is very fruitful given the kinds of information which can potentially be learned from stone tools. It is an exciting development which has been applied in archaeological studies in many parts of the world. Current issues and problems focus largely on delineating specific variables which contribute to the design of technological systems (see Hayden et al. 1996). Suffice it to say, this kind of work has added a new dimension to the study of stone tools. On a very general level, we now have a potentially better understanding of the relationship between human land-use and design of lithic technologies. On a more specific level, applications of such studies can augment the pre-contact history of aboriginal peoples in British Columbia and in other parts of the world.

Bibliography

Carlson, R. L., 1995, "Early Namu," in *Early Human Occupation in British Columbia*, edited by R. L. Carlson and L. Dalla Bona, U B C. Press, Vancouver.

Hayden, B., N. Franco and J. Spafford, 1996, "Evaluating Lithic Strategies and Design Criteria," in *Stone Tools: Theoretical Insights into Human Prehistory*, edited by G. H. Odell, pp. 9-50. Plenum Press, New York.

Rahemtulla, F., 1995, "An Analysis of Lithic Debitage from the Early Period at Namu." Unpublished M.A. Thesis, Department of Archaeology, Simon Fraser University, Burnaby.

Acknowledgements:

I thank the Heiltsuk Nation for allowing us to continue the work on Namu. My doctoral research is supported by the Social Sciences and Humanities Research Council of Canada, and by Simon Fraser University.

Farid Rahemtulla is currently a PhD candidate at the Department of Archaeology, Simon Fraser University. He has been involved in a number of archaeological projects around the world, notably in Africa and Canada. His current research focuses on Early Holocene history on the Northwest Coast, although he has interests in household archaeology, technology, subsistence, public and First Nations involvement in archaeology, and philosophy of science.

DEBITAGE

In November '97, **Siyémches**, Chief Frank Malloway from the Stó:lo Nation, was honoured in a ceremony at the UBC Museum of Anthropology for the work he has been involved in with the **UBC ethnographic field school**. This past spring, for the third time, half a dozen graduate students spent about four weeks living at Frank's longhouse, the Richard Malloway Memorial Longhouse, working on projects to help record a little more of the oral history of this area. The fourth UBC ethnography field school in co-operation with Stó:lo Nation is scheduled to begin in May '98.

The **Sixth Annual B.C. Archaeology Forum** hosted by the Stó:lo Nation last fall was well-attended by many facets of the archaeology community. Government, academics, professionals and First Nations were represented. Presentations on archaeological research around the province were followed by the Forum's open discussions involving the views of First Nations vs archaeologists. Saturday evening found participants at a traditional feast in the Coqualeetza Longhouse. For the work done in co-operation with Stó:lo Nation over the past seven years, the University of British Columbia and Simon Fraser University were honoured in a thanking ceremony, with **Dr David Pokotylo** and **Dr Dana Lepofsky** as representatives for the universities. The Forum closed on Sunday with either a tour of the X̲á:ytem Interpretative Centre, or a bus tour of traditional Stó:lo Halq'eméylem place names and associated stories.

BOOK REVIEWS

Tour Brings to Life North American Archaeology

In Search of Ancient North America: An Archaeological Journey to Forgotten Cultures

by HEATHER PRINGLE
John Wiley & Sons, Inc. New York, 1996. *227 pp., illus., photos., sugg. rdgs., bibliog., index. Price: ISBN 0-471-04237-4 (Hc) $34.95 CDN.*

In Search of Ancient North America by Heather Pringle is an informative, wide-ranging survey of archaeology as it is pursued in Canada and the United States. The book admirably fills a void in the popular archaeological literature by feeding the general public's hunger for digestible reading about archaeology in North America. For readers with a greater knowledge of the subject, the book will still be of interest, especially for the characterisations of familiar archaeologists, and the context of the excavations and interpretations, while perhaps not satiating their hunger for more detail. Pringle's whirlwind tour of selected North American archaeological sites will likely inspire many readers to seek out additional archaeological tidbits elsewhere to feed their curious minds, a commendable outcome if public interest in archaeological heritage is ever to be raised above the "out-of-sight, out-of-mind" level it frequently suffers.

The book is difficult to criticise in any major way. Perhaps the sites selected, choices no doubt limited by editorial fiat, will not be universal favourites. The "gee-whiz" journalistic style might put some readers off, but the style might best be seen as both a curse and a blessing. It is an example of what is needed to make the subject matter interesting for many readers, while demonstrating that all archaeological writing need not be dreary. The clarity of the writing renders the absence of a brief glossary no big problem. The inclusion of an index makes it nearly impossible for me to raise my pet peeve about a common shortcoming of many archaeology books. Readers who seek other reviews of Pringle's book should consult the Saturday Review section of the *Vancouver Sun* (p.D12, Sept. 7, 1996) or *The Beaver* book review section (p.42-3, June/July 1997) for the thoughts of other reviewers.

In Search of Ancient North America should be on the mandatory reading list for all municipal planners, elected officials and developers, along with several other recent books, to alert them to the ever present potential for new discoveries, and the continuing need for excavation and interpretation, opportunities that are being irretrievably lost through the mindless destruction of archaeological sites that such officials actively and passively condone daily. As critical archaeology, the book, in a subdued way, forces the reader to consider the urgency of the need to preserve archaeological heritage resources, and, at the same time, to address the growing role of Native peoples in heritage matters concerned with their ancestral past.

The adventure of past archaeological mysteries solved and the exciting potential for solving future archaeological mysteries is well conveyed by Pringle. A reader can feel the excitement and commitment of the intrepid excavators as portrayed, and for those you might know, chuckle about the human attributes given them by the author. There is a sense of moving forward to gain tantalising glimpses of the past as the investigators frankly speculate, concocting new ways of collecting, comparing and analysing the evidence, to gain fresh insights about what the people of the past were up to. The theory, method and pursuit of archaeology is well conveyed as a process which involves a swirl of speculation, problem identification, hypothesis formulation, data collection, analysis and conclusion that builds from one result to be repeated again and again, giving voice to new or revised regional interpretations of past cultural activities. The researchers confirm that many of the underlying themes are similar for each of the different regions visited and for places much further afield.

For archaeology/anthropology students at an introductory level the book provides a wide-angle view of archaeology in North America. The book addresses the early peopling of the continent, hunter/gatherer activities, and the emergence of more complex societies. The core chapters deal with nine prominent sites scattered across the continent. On a partisan Northwest regional basis the chapters dealing with Bluefish Caves in the Yukon, Head-Smashed-In Buffalo Jump in Alberta, and Keatley Creek in British Columbia, will be of special interest to most readers of ***The Midden***. Without being too scholarly or obfuscating, the book contains plenty of archaeological value for both the serious student and the pleasure reader.

The introductory and concluding chapters, reading like an extended essay, present an encapsulating synopsis of the past, present and future of archaeology in North America. In conjunction with the specific site chapters, the author subtly illuminates a dilemma associated with the increased scientific rigor of modern archaeology as best stated by George Bernard Shaw when he said "Professionalism is a conspiracy against the laity." From this perspective it is no wonder the public is not always enamoured of archaeology while at the same time being irresistibly attracted to interpretive sites and the writings of popular writers like Heather Pringle.

It is not fair to hold the author account-

able for the hyperbole of the dust jacket, but it is here we encounter evidence of the difficulty modern North America has in dealing with Native people. Farley Mowat is quoted as saying "*In Search of Ancient North America* brings the distant past much closer and its inhabitants almost become neighbors to us once again." If one attempts to penetrate the perceptual barrier between prehistory (dead and gone) and history (alive and well), regarding Pringle's narrative as a continuum still unfolding, it is easy to accept that the descendants of the past people archaeologists study are in fact not "almost our neighbors" as Mowat puts it, but are our real, live neighbours if we bother to take the time to look. Pringle in a non-strident manner brings the people past and present that are studied, their descendants, and the studiers alive as real people in a wholly enjoyable read that has something for everybody.

Terry Spurgeon

ASBC member Terry Spurgeon, retired from 35 years as a pilot and safety inspector in the aviation industry, is a past President of the ASBC. He is currently an MA student in the Department of Archaeology at SFU, fresh from the challenge of a graduate archaeology theory class.

A Synthesis of Canadian Prehistory

A History of the Native People of Canada: Volume I

(10,000 - 1,000 BC)

by JAMES V. WRIGHT

Mercury Series Archaeological Survey of Canada Paper No. 152, Canadian Museum of Civilization, Ottawa, 1995.
588 pps., photos, illus., index. Price: ISBN 0-660-15951-1 (Pb); ISBN 0-660-15954-6 (CD) $39.95; ISBN 0-660-15955-4 (Diskettes) $39.95 CDN each; or book + CD $59.95; or book + Diskettes $59.95.

J.V. Wright (Curator Emeritus, Canadian Museum of Civilization) provides a truly encyclopedic study of the pre-contact First Nations cultures of Canada. This is the first is a series of three planned volumes on this topic. Volume I (10,000 - 1,000 BC) is also available on CD-ROM and diskette formats - a boon to the 'high-tech' reader. The computer accessible formats allow for word searches of the text, an invaluable tool for both student and professional archaeologist.

At over 500 pages, Wright successfully achieves the mandate of the Mercury Series publications, to provide "topical syntheses of Canadian Archaeology ... to a broader public." Although these volumes will be of more use to serious avocational archaeologists, upper level students and scholars, it will also appeal to the general reader - especially in the CD-ROM format which includes colour plates (not available in the paper edition). A glossary is of additional value for non-archaeology readers.

The text is arranged into three periods: Period I (10,000-8,000 BC), Period II (8,000-4,000 BC) and Period III (4,000-1,000 BC). Each period reflects current, as of 1995, knowledge gleaned primarily from the published archaeological record. Grey literature such as unpublished theses, government documents and the like consist of less than one percent of the references cited. This is understandable, however, considering the volume of such works spread over 10 provinces and three territories.

The length of text for the discussion of each defined Period accurately reflects the amount of published archaeological information available: Period I is dealt with in only 38 pages, Period II in 110 pages and Period III in 273 pages. (This pattern should provide thought to graduate students seeking thesis topics). Each Period is separated into specific culture areas (regions) which are described and discussed according to a standard format: précis, cultural origins and descendants, technology, subsistence, settlement patterns, cosmology, external relationships, human biology, inferences on society and limitations in the evidence. This standardization allows for easier comparisons between and among regions and time periods. This is a valuable data set for scholarly cross-cultural and theoretical comparisons.

Some of Wright's analysis of specific aspects of Canadian First Nations' prehistory will not be met with universal acceptance among archaeologists. (See R. Carlson's (1997) *American Antiquity* review for comments on early Western Canadian cultural antecedents, for specific examples). Such is the nature of the discipline. However, this also illustrates the need for professional archaeologists to publish research results on a timely basis, but this is another issue.

There are some interesting disparities in the text - colour plates are identified for example, but printed in black and white. Presumably, colour versions are only available in computer-readable formats. There are the usual typographical and typesetting errors common to Mercury Series publications, but one must keep in mind that these volumes are never professionally edited.

This volume, and its future two sister volumes, should find their way into the libraries of all who profess an interest in past First Nations' lifestyles. The publication is especially valuable for those engaged in teaching, or enrolling in post-secondary courses concerned with Canadian First Nations' prehistory.

Stan Copp

Reference Cited:

Carlson, R., 1997, Review of J.V. Wright's "A History of the Native People of Canada," *American Antiquity* 62 (2): 385-386.

Stan Copp is an instructor of Anthropology and Archaeology at Langara College in Vancouver. Besides teaching, he enjoys balancing the demands of writing a PhD dissertation for the Department of Archaeology at Simon Fraser University, and conducting field research in the Okanagan-Similkameen-Nicola Valleys as an independent consultant.

Status, Offerings and Human Remains

Mortuary Variability and Status Differentiation on the Columbia-Fraser Plateau

by RICK J. SCHULTING

Archaeology Press, Department of Archaeology, Simon Fraser University, Burnaby, 1995. vii + 223 pp, illus., apps. Price: ISBN 0-86491-150-5, (Pb) $24.00 CDN.

The last few years have seen a shift in focus of mortuary analyses from site-specific to broader regional overviews (e.g., Beck 1995). This is a trend that Schulting follows with his monograph (and MA thesis) that examines mortuary variability on the Columbia-Fraser Plateau. Working primarily from published and unpublished site reports, he looks for evidence of socio-economic status differentiation in mortuary remains from the region. Although ethnographic Plateau social systems have commonly been regarded as essentially egalitarian (Ray 1939), the results of recent archaeological investigations on the Fraser River and middle Columbia seem to indicate greater social complexity, at least in the prehistoric period. Is the ethnographic impression of egalitarianism inaccurate? Were certain areas of the Plateau characterised by more complex social organisation than others? Were prehistoric groups more complex than historic ones? If so, when did this complexity arise? What effect did the protohistoric introduction of the horse, the gun, and new sources of wealth from the fur trade have on existing complexity? These are some of the questions Schulting addresses in his research.

His data are derived from more than 50 excavated burial sites located in six sub-regions: Lower Middle Columbia (the Dalles-Deschutes region), Middle Columbia, Upper Columbia, Okanagan/Similkameen, Fraser River, and Thompson River; and representing three broad chronological periods: middle prehistoric (4,000-2,000 BP), late prehistoric (2,000-200 BP), and protohistoric. Given that the sites were excavated by dozens of different archaeologists over a period of nearly a century, the quality of the reported information is understandably uneven. Schulting is clearly aware of the limitations of the data, which include selection bias (mainly valley bottom settlements), small sample sizes, incomplete recovery, inadequate chronological controls, and inconsistent reporting, and has looked for innovative ways to extract useful information from a severely compromised data set.

Chapter 1 introduces the problem, delimits the study area, and briefly summarises previous studies of Plateau mortuary practices, which include cremation and simple inhumation, as well as burial in talus slopes, cairns, wooden cysts, canoes, and baskets, to name a few of the variants. Given the cultural-historical focus of much of the earlier research, this mortuary variability has traditionally been viewed in terms of chronological or regional variation, rather than socio-economic status differences.

The second chapter reviews the theoretical background to the investigation of social dimensions of mortuary behaviour, beginning with a succinct discussion of the processualist and post-processualist approaches to burial analysis, as well as the contribution of Marxist concepts to these studies. Schulting touches briefly on the origins of inequality, and more deeply on the difficulties in differentiating archaeologically between achieved and ascribed status, particularly with reference to the problem of the "rich" child burial. Finally, he introduces the dimensions of mortuary variability most likely to reflect the socio-economic differences in which he is interested, each of which measures differential energy expenditure in some facet of mortuary ritual.

Chapter 3 evaluates the data set and outlines the methods of analysis, which seek to identify patterned variation in both subordinate (age/sex) and superordinate (socio-economic) dimensions. The subordinate dimensions are explored through tests of demographic bias in burial samples, and by looking for specific artifact associations, both of which could indicate differential treatment of age/sex classes within the social group. Socio-economic differentiation is identified primarily through grave inclusions, using measures of burial assemblage "richness" (defined simply by the number of different artifact types present), and "grave lot value", calculated by summing the values or weights (ranging from 1 to 6) assigned to each artifact type. From these two variables, three measures of socio-economic inequality are derived: a simple coefficient of variation (V), a Lorenz curve, and a Gini index (G).

Descriptions of the various artifact classes along with the rationales for their assigned values are presented in Chapter 4. Both emic and etic perspectives are considered in the attribution of value, the former based on ethnographic accounts (where available) of artifact use and meaning, the latter on such considerations as context (utilitarian vs. socio-technic), raw material, and labour investment in manufacture. This section would have been improved by the inclusion of selected artifact illustrations, since some of the artifact classes are uncommon and difficult to visualise from their text descriptions.

Next Schulting reviews the ethnographies of selected Plateau groups, paying particular attention to socio-political organisation, socio-economic structure, ownership of resources, and burial practices. This information is of direct relevance to the protohistoric component of the data base, providing an independent test of the analytical results. He concludes that Plateau groups did vary in social complexity, that socio-economic status could be achieved as well as inherited, and that status differences in life were reflected in mortuary behaviour.

The raw material for the subsequent analyses are presented in Chapter 6. Burial sites from each of the six sub-regions are described in turn, including such information as number and integrity of burials recovered, individual sex and age attributions, number of individuals per grave, burial types, body position and orientation, spatial patterning, chronology, and type and quantity of grave inclusions. This chapter presents a wealth of information gleaned from numerous, often obscure sources; unfortunately its utility is reduced by the lack of summary tables

which would facilitate inter-site comparisons for any of the recorded variables.

I was troubled by numerous errors, omissions, and inconsistencies in this section of the monograph. Several sites are either not featured on the site maps or are plotted incorrectly; numbers cited in the text do not always jive with those in accompanying graphs and tables (e.g., Beek's Pasture, Berrian's Island, Sundale, Fish Hook Island, Nicola Valley). More Seriously, although he states (quite properly) that multiple burials in which artifact associations are uncertain should be eliminated from the analysis, in practice he sometimes violates this principle, "guestimating" artifact associations under the apparent assumption that infants and adult females would have been buried with less wealth than adult males. In a study that purports to *test* for age and sex associations, these assumptions are inexcusable. The errors I noticed may not be significant enough to alter the outcome of subsequent analyses, but they certainly raise suspicions about reliability of the statistical tests on which these data are based.

In chapter 7 Schulting arbitrarily establishes 20 burials as the minimum sample size for his statistical analyses, a number no doubt dictated by the limitations of the data set, but one which many (myself included) would argue is inadequate to reliably detect the patterns he is seeking. Even this minimal requirement is rarely met, leading Schulting in some cases to lump together burials from several sites in order to have some data with which to work. Ironically, the largest burial assemblage (Old Umatilla, n=105), in my opinion the only one sufficiently large to even approach a representative cross-section of the living population, is omitted from all statistical analyses on the grounds that it is so much larger than the other samples that it would skew the results. This may be correct statistically, but makes little sense intuitively.

The results of the analyses are summarised in the final chapter. Several patterns are detected: subadult remains are generally under-represented in Plateau burials; subadults are differentiated from adults in utilitarian grave inclusions but not in socio-technic items, supporting some degree of ascribed status; the middle prehistoric assemblages exhibit markedly less inequality than either the late prehistoric or the protohistoric; the protohistoric assemblage sees a decrease in subadult burial "wealth" suggesting an increase in the importance of achieved status in this period.

Acceptance of these results is dependent on one's willingness to overlook the inadequacies of the data from which they were derived. As a physical anthropologist concerned with the biological parameters of the samples, I recall how some of these attributions were made (e.g., at Selah, empty cairns were "assumed" to be infant burials, and a "small child, or very young adult" is translated into an adult in the data-base); as an archaeologist, I consider the possible confounding effects of poor chronological controls, inadequate samples (the middle prehistoric is represented by only two sites with a total of 41 burials), and unrecognised mixing of components. I confess that I find myself unconvinced that Schulting's results are not mere artifacts of an incomplete and biased data-base.

This is not to say that I don't applaud his efforts, or recognise the value of what he has accomplished in collating data from such a wide variety of sources, and identifying patterns and questions that may be addressed in future work. Schulting has undertaken an enormous task in his attempt to make sense of a century of mortuary archaeology on the Plateau. It is truly heartbreaking to read this account, and learn how little reliable information is now recoverable from this once rich and significant heritage resource. Sadder still, it is unlikely, given the current political climate, that similar burial sites will ever again be available to archaeological enquiry.

Joanne Curtin

A. Joanne Curtin has worked for more that 20 years in British Columbia as an archaeologist and physical anthropologist. She is currently completing her PhD in physical anthropology at Ohio State University.

References

Beck, Lane Anderson. ed., 1995, *Regional Approaches to Mortuary Analysis,* Plenum Press, New York.

Ray, Verne F., 1939, *Cultural Relations in the Plateau of Northwestern America,* Fredrick Webb Hodge Publication Fund, Vol. 3. Los Angeles.

DEBITAGE

During the past year two more students completed the Masters program at UBC: **Doug Brown**'s thesis, *Disposing of the Dead: A Shell Midden Cemetery in British Columbia's Gulf of Georgia,* is based on his excavation of a burial site at Somenos Creek near Duncan. **Sandra Morrison** wrote about the results from UBC's second year of excavation of a large house depression at the Scowlitz site in her thesis, *Household Archaeology at the Scowlitz Site, Fraser Valley, B.C.* Doug is currently continuing in the PhD programme at SFU, and spent last summer working with the SFU field school on an even more wide-scale excavation of the same house that Sandra discussed in her thesis. Sandra has recently been doing some work for Arcas Consulting Archeologists.

UBC has been busy during the past year - **Dr David Pokotylo** spent the first half of the summer of '97 in the rain at the X̲á:ytem site (Hatzic Rock) locating another habitation structure. Then he spent the winter semester in the floods in Africa helping to conduct a field program organised by Langara College in co-operation with Dalhousie, McGill, University of Alberta and UBC ... Meanwhile, **Eric McLay** spent some time working with the Lyaksun First Nations on Valdes Island finishing a survey of the island that he started during the field project directed by **Dr R.G. Matson** at Shingle Point on Valdes in 1996 . . . Also doing some work in the Gulf Islands was **Colin Grier**, a visiting PhD student from the University of Arizona. Colin is investigating the house depressions at Dionysio Point on Galiano Island . . . And over the summer of '98 UBC and SFU will perform a first—a joint field school at the Scowlitz site. **Dr Dana Lepofsky** from SFU will be assisted by PhD student, **Doug Brown**; and **Dr Mike Blake** from UBC will be assisted by MA student **Tony Vanags**.

FIELD NOTES

ACTIVITIES OF ALTAMIRA CONSULTING LTD. IN 1997

Bruce Ball reports that Altamira Consulting Ltd. conducted a variety of CRM-related projects over the 1997 season. The work included research and reviews, regional overviews, impact assessments, and mitigation procedures. Results of the 1997 season included recording over 70 new archaeological sites, several historic sites, and updates of a number of previously inventoried sites.

One of the more interesting discoveries this past year was that of a huge basalt quarry complex, found during an impact assessment of a forest industry development in the south-central Interior of B.C. The site, referred to as the Arrowstone Quarry Site, was found during a routine field survey by Bruce Ball in the Arrowstone Hills, located just NE of Cache Creek. Site survey was confined to existing exposures and proposed timber-harvesting locations.

This is a very large prehistoric site, extending over several kilometres of hillside terrain. It is comprised both of surface exposures and cultural features representing formal resource extraction activities over at least 5,000 years. At least three types of archaeological remains are represented at the site: (1) random occurrences of between one and three artifacts; (2) surface distributions of artifacts resulting from surface-quarrying activities; and (3) quarrying locations. The latter features consist of mounds and depressions of varying sizes and shapes, similar in form to housepits. Four areas with such features were recorded; the number of features within a surveyed area ranged from two to over 100. Over 900 shovel tests were excavated throughout the proposed harvesting locations and two evaluative tests were excavated at one of the features. Both of the latter were dug to 200 cm below surface, at which depth debitage and formed tools were still being recovered.

Among the most interesting aspects of this discovery, is that while this locality has been well-known as a source for lithic raw materials for many years, it appears that no archaeologists have previously taken the time to investigate the Arrowstone Hills with the intent of identifying the source of the cobbles and scores of lithic reduction workshops recorded from nearby lowland settings.

ACTIVITIES OF POINTS WEST HERITAGE CONSULTING LTD. IN 1997

Jean Bussey writes that Points West Heritage Consulting Ltd. conducted archaeological investigations in B.C. and the Northwest Territories in 1997. Either Jean or Gabriella Prager directed the Points West projects, both being members of the B.C.A.P.C.A.

In B.C., work was conducted for a number of clients in the Chilliwack, Penticton, and Fort Nelson forest districts, and for two energy sector clients in northeastern B.C. All were archaeological site inventory and impact assessment projects. Four new archaeological sites were located and three previously recorded were relocated as a result of these investigations. Field crews generally consisted of two experienced archaeologists and one local assistant. Representatives of the following First Nations were employed on a project-specific basis: Fort Liard Indian Band, Fort Nelson Indian Band, Kelly Lake First Nation, Osoyoos Indian Band, Penticton Indian Band, Prophet River Indian Band, Scowlitz Indian Band, and Westbank First Nation.

A project undertaken for BC Gas Utilities Ltd. involved coordination of the archaeological investigations for the Southern Crossing Pipeline between Oliver and Yahk, B.C. This project was undertaken in conjunction with Wayne Choquette of the Ktunaxa-Kinbasket Tribal Council (for the eastern 145 km of the route) and Martin Handly and Rob Lackowicz of Kutenai West Heritage Consulting Ltd. (western 167 km). Crew size varied considerably, depending on the location and extent of the area being examined. A total of 17 new archaeological sites were discovered in the western half of the pipeline route. In the eastern portion, numerous historic sites were revisited, two of which yielded additional prehistoric components, and six previously recorded prehistoric sites were also assessed. Representatives of the Ktunaxa-Kinbasket Tribal Council, Sinixt-Arrow Lakes First Nation, and the Osoyoos Indian Band assisted with these investigations.

In the Northwest Territories, two major projects were undertaken. This was the fourth year for a project located near Lac de Gras (approximately 350 km northeast of Yellowknife) and the third year for one near the Arctic Coast (east of Bathurst Inlet). A total of 30 new sites were found near Lac de Gras, bringing the total for this project to 117. The majority of these sites consist of small scatters of lithics (primarily unworked flakes of quartz, but including shale and chert, and the occasional tool); one the sites contains four tent rings. Accurate determination of site locations using an advanced GPS was initiated; this is intended to ensure site avoidance during the extensive periods in which there is snow cover. Traditional knowledge research is being conducted simultaneously (by the mining company) and will be used to assist in future archaeological investigations. Members of the Yellowknives Dene First Nation and the Dogrib Treaty 11 Council provided field assistance. Four experienced archaeologists and two local assistants were involved in this project.

A total of 43 new archaeological sites were located during a site inventory for the second project, referred to as the Hope Belt Bay project, bringing the total for this area to 86. In addition, 23 sites were evaluated by test excavation and mapped to scale. These sites primarily consist of varying numbers and types of rock features, including stone circles, rock caches, cairns, signal rocks, and rock traps. A few surface lithics have been located, large quantities of bone recovered, and one buried lithic site recorded. The sites represent the full time range of human occupation in the Central Arctic, from Paleo-Eskimo through Thule, to the historic Copper Inuit. The crew for this project consisted of three experienced archaeologists and one local assistant, an Inuit from Bathurst Inlet.

ACTIVITIES OF I.R. WILSON CONSULTANTS LTD. IN 1997

In 1997, I. R. Wilson Consultants Ltd. carried out 76 projects of varying magnitude throughout British Columbia. Archaeological impact assessments for housing subdivisions (17) and forestry developments (17) represented the most frequent type of project. The next most frequent category of project undertaken (12) were jobs difficult to categorize (e.g., an impact assessment of a movie set, an evaluation of a schoolhouse site, etc.). Next in order of frequency (8) were forestry driven archaeological overview assessments, ranging from regional scale model development to evaluations of site potential within individual forestry development areas. Eight "industrial" projects (for pipelines, telephone cables, etc.) were also undertaken. Six different impact mitigation or systematic data recovery projects were also conducted in 1997, all on a smaller scale than were typical some years ago. Four archaeological site inventory projects were conducted, all associated with regional site potential models. Lastly, three projects with military overtones and one mining project were conducted. In retrospect, the 1997 client base appears to have been somewhat more balanced than in previous years, in that forestry-driven studies were less dominant, though certainly still forming the backbone of our work.

Presently, I. R. Wilson Consultants employs 18 full-time staff, including office administration and support. Throughout the year, we employed 26 archaeologists and three support staff. A total of 45 First Nations assistants were employed throughout the province.

Our firm also led a 3 month long First Nations training program through our Williams Lake office, training over 20 First Nations community members in archaeological and anthropological theory and practical field techniques.

Our mitigation projects focused primarily on small task specific sites, both on the Coast and in the Interior of B.C., though several data recovery projects were conducted on small fractions of much larger sites. Results were consistent with established regional culture histories at all sites. Perhaps our most surprising result was identification of a number of very extensive CMT sites in the Morice Forest District, an area where there formerly seemed to be universal agreement that such sites were unlikely to occur. Generally, the number of sites identified in our 1997 forestry projects were much higher than last year.

ACTIVITIES OF KUTENAI WEST HERITAGE CONSULTING LTD. IN 1997

Martin Handly of Kutenai West Heritage Consulting Ltd. writes that his firm conducted a total of 27 projects within the West Kootenay and Okanagan regions during the 1997 season. These included two archaeological overview assessments, two mitigative excavations, three field reconnaissances, and 20 archaeological impact assessments. Of the latter, 11 were on behalf of forest licensees, eight were for the Ministry of Forests, and one project was for a proposed natural gas pipeline. Ten archaeologists and 12 First Nations assistants were employed during these projects, with many involving associations with resident Band members for the majority of the field season.

In the course of 1997's projects, a total of 166 forestry cutblocks or forest access roads, 28 woodlots, five proposed development areas, a proposed large recreation site, and approximately 200 km of proposed pipeline right-of-way were examined. A total of 39 new archaeological sites were identified, and six previously recorded sites were relocated. These sites included 34 subsurface lithic/faunal scatters, three CMT sites, two cultural depression/lithic scatter sites, a pictograph, a rockshelter, and a trail (associated with the pictograph panel).

Four projects were of particular interest. A stratified, multi-component rockshelter near Grand Forks (discovered during the gas pipeline assessment), resulted in extremely high recovery rates of Late Period lithic artifacts and faunal remains. One lithic scatter, situated on an elevated glaciofluvial delta along the Arrow Lakes, appears to be a single-component Middle Period site, with opaline lithic raw materials and a large projectile point fragment. Another interesting find was the unanticipated discovery of an adult male burial in primary context, at a disturbed site in Okanagan Falls; the support expressed by local First Nations elders during the burial recovery was greatly appreciated. Finally, a site inventory of the Little Slocan Lake foreshore has resulted in the identification of eight pre-Contact sites to date, including assemblages containing a high percentage of formed tools, including Late Period projectile points, endscrapers, and microblades.

ACTIVITIES OF ARCAS CONSULTING ARCHEOLOGISTS LTD. IN 1997

Michael Klassen reports that approximately 92 new projects were initiated by Arcas Consulting Archeologists in 1997, which included 65 archaeological impact assessments, 7 development-specific overviews, 4 regional GIS overviews (archaeological potential modelling), 5 inventory studies, 2 excavations, and a variety of other research projects. These projects employed a total of 138 personnel, of which 102 were First Nation field assistants.

Impact assessments for forest industry clients continued to dominate Arcas activities in 1997, with nearly 60% of the projects associated with forestry developments. Coastal forestry projects were located primarily on the west coast of Vancouver Island, Sunshine Coast - Johnstone Strait, and the North Coast, while interior forestry projects were conducted primarily in the Cariboo Forest Region. Over the past year, the role of First Nations in archaeological resource management continued to expand, as Arcas developed partnerships and working relationships with First Nations' communities. First Nations groups were the lead proponents or clients on 3 GIS-based overviews, 4 site inventory studies, and 1 excavation. In addition, a number of forestry projects and research studies were conducted in partnership with or under contract to First Nations.

Successful site inventory studies funded by Forest Renewal B.C. were undertaken in the Chilcotin, Quesnel, and 100 Mile House forest districts. These were designed to provide baseline archaeological data, test site discovery methods, and test assumptions about archaeological site potential. An inventory in the Chilko River drainage was conducted on behalf of the Tsilhqot'in National Government. Ten

randomly selected quadrats and 5 judgemental survey areas were intensively surveyed, producing 39 new sites (including several housepit villages) and substantially enlarging 7 previously-recorded sites. An inventory near Quesnel on behalf of the Lhtako First Nation surveyed locations adjacent to 10 lakes, many in settings east of the Fraser River with poorly-known archaeology. A total of 27 new sites were recorded, and sites were associated with every lake in all the biogeoclimatic zones. An inventory in Canim Lake Band traditional territory used both judgemental and systematic subsurface testing methods. In the 5 quadrats surveyed, 3 sites were identified during systematic testing, 3 sites were identified during judgemental testing, and 1 site was identified by both methods.

In August, Arcas undertook mitigative excavations at 2 sites on Gambier Island in Howe Sound. Although situated in near-coastal settings, both sites lacked shelly midden deposits and only lithic artifacts were recovered. Results from this project will be incorporated into ongoing research conducted on behalf of the Squamish Nation. Again in August, Arcas continued an ongoing archaeological research program for the Ucluelet Band. Half the month was used to provide archaeological survey training to 5 students from the band, resulting in the discovery of 17 new CMT sites in the Ucluelet Inlet area. The crew also participated in two weeks of testing midden sites on the Ittatsoo IR#1. Midden deposits over 3.5 m deep were encountered at DfSj 40, from which four 14C dates between 2,360 and 820 BP were obtained.

ACTIVITIES OF MILLENNIA RESEARCH LTD. IN 1997

Morley Eldridge writes that Millennia Research Ltd. was incorporated in 1997, marking a major step in the evolution of the firm. Millennia now employs some 15 archaeologists, with additional personnel hired on a short-term basis.

In 1997, Millennia Research conducted several projects with results of general archaeological interest. The foremost was a project in the Stave Lake watershed, jointly directed by Millennia Research and Kwantlen First Nation, and funded by B.C. Hydro. On the upper lake, a draw-down to just above its pre-inundation level permitted a large-scale, low-intensity inventory of archaeological sites. It quickly became apparent that the site density was much higher than previously suspected for this montane valley. In just 12 days a crew of 8 recorded some 28 sites and systematically surface collected about 1,600 artifacts (over 100 of these being formed bifaces). Of greater interest was the apparent lack of Late Period sites. Only at two low-elevation locations were groundstone, notched projectile points, and broken boiling stones observed. In general, the assemblages were dominated by leaf-shaped and lanceolate projectile points, very large, "tortoise-back" cores, very large biface preforms (or multi-use core tools), and a distinctive lack of boiling stones (normally ubiquitous in the region's sites). The assemblages appear to be attributable to Charles Culture (4,500 - 3,500 BP) and even earlier periods. Many of the assemblages may date to the Old Cordilleran Culture, with links to Olcott sites in western Washington. Of considerable interest was a distinctive Plano-style lanceolate projectile point, one of the first found in coastal B.C. This artifact has squared shoulders above an edge-ground square stem, exceptional flaking with collateral flakes removed to the centreline or beyond, and other technical and metric attributes of an Alberta Point -- more typically found on the Northern Plains and suggesting an antiquity on the order of 8,000 to 10,000 years. The point was end-fluted and later potlidded, suggesting breakage while hunting, followed by curation and burning in a fire in preparation for re-hafting. A report on the Stave Lake Survey, authored by Duncan McLaren et al, is available through the Culture Department Library, Ministry of Small Business, Tourism and Culture.

1997 also witnessed completion of two projects dealing with wetsites, after a delay of several years due to funding difficulties. Analyses and reporting of two sites containing basketry, cordage, wooden fish hooks, and other items at Nitinat Lake was completed for the Canadian Parks Service and the Ditidaht First Nation. Analysis and reporting of the 4,000+ year-old wetsite component at the St. Mungo Cannery was also completed.

Several reports dealing with data recovery projects at inland shell middens along the Victoria Approaches Highway Project were also completed this year. Particularly interesting were differences between faunal and artifact assemblages in Locarno Beach (3,500 - 2,500 BP) and later Gulf of Georgia (1,500 - 200 BP) sites. Herring, dogfish, and some salmon were found at inland Locarno Beach-aged sites, while no fish were found at inland Gulf of Georgia-aged sites. The early sites tended to be larger, had a greater density and variety of artifacts, and included a high proportion of ceremonial/ritual artifacts, such as earspools, Gulf Islands Complex "whatsits", and a large copper-stained whalebone.

EQUINOX RESEARCH AND CONSULTING LTD. ACTIVITIES IN 1997

Ian Franck writes that Equinox Research and Consulting Ltd. was involved in approximately 20 projects in 1997. At certain points during the year they had upwards of eight people on staff and employed over 20 First Nations assistants. Equinox intends to remain a small company, though the opportunity to expand and become larger is open.

Just under half of the 1997 projects were associated with forestry operations, within the Chilliwack, Quesnel, Lakes, Salmon Arm, and Lillooet forest districts. Approximately 60% of the proposed timber harvesting areas inspected contained archaeological sites, which bodes well for the accuracy of the predictive models that selected the survey areas. Most site types encountered were fairly typical for respective parts of the province (e.g., lithic scatters, shell midden, and CMTs). However, there were a few exceptions, including some very extensive CMT sites found in the Burns Lake area (many were in excess of 30 ha). As well, more possible burial mounds were identified in the Harrison Mills area. As part of Ian's own thesis research, he recorded two probable berry-drying trenches in the Skagit Range east of Hope. These features are the first ever identified in B.C.

A notable office-based 1997 research project was an "archaeological data gap analysis" of the entire province, intended to establish how much and what parts of B.C. have actually been surveyed. This research determined that archaeologists essentially do not know enough about the archaeological record of the province to

produce effective predictive models -- in contradiction to what was reported just above! The data gap analysis involved a review of over 1500 documents from the Culture Department Library in Victoria.

TRACES ARCHAEOLOGICAL RESEARCH AND CONSULTING LTD. IN 1997

Arne Carlson of Traces Archaeological Research and Consulting Ltd. writes that they carried out a total of 19 archaeological projects in 1997. Regionally, all of these projects were within the Nechako Plateau of Central Interior B.C. Most projects were oriented toward cultural resource management studies, in response to proposed forest industry operations. The projects included five archaeological site potential assessment studies for selected forestry developments, one cultural heritage overview, and 13 archaeological site inventory and impact assessment studies. Additionally, with recent demands from forest licensees and the Ministry of Forests for a better understanding of archaeology and cultural heritage resource management, TRACES participated in archaeological training

ACTIVITIES OF ANTIQUUS ARCHAEOLOGICAL CONSULTANTS LTD. IN 1997

Mike Rousseau of Antiquus Archaeological Consultants Ltd. reports that his firm conducted most of its studies for the forest industry, specifically for timber harvesting blocks and related access roads in the Chilcotin Forest District. A few projects related to private and government residential or commercial subdivisions, and one small mining operation was also inspected. Most studies were archaeological resource impact assessments, although a few minor forestry overviews and a monitoring program were conducted. All investigations were carried out in the B.C. Interior.

Very few sites were encountered this year compared to previous seasons. Pre-Contact period sites included mostly lithic scatter sites and isolated finds, and one small housepit village. Post-Contact period sites included sections of trails that were used by Native and non-Native peoples. No detailed, systematic data recovery (excavation) projects were undertaken, as the sites identified were easily avoided.

STÓ:LO NATION ARCHAEOLOGICAL ACTIVITIES IN 1997

Stó:lo Nation Archaeologist David Schaepe held permits for and conducted the following projects within Stó:lo Nation traditional territory in 1997: (1) the Chilliwack River Watershed Inventory Study, and (2) an archaeological impact assessment of the Bear Creek and Rainbow Falls Forest Service Recreation Sites on Harrison Lake.

Stó:lo community members Larry Commodore, Dean Jones, Carl LaRock, and Riley Lewis were employed and trained to assist with this fieldwork. Funding for the Chilliwack River site inventory was provided by Forest Renewal B.C., while the Chilliwack Forest District sponsored the impact assessments of their recreation sites.

RECENT RESEARCH IN SKEENA RIVER DRAINAGE, NW BC

Paul Prince (McMaster University) prepared the following note on the results of his recent fieldwork in northwestern B.C.

In August of 1995, I conducted a surface survey in the Kitwanga Valley -- a major tributary of the Skeena River -- with the assistance of Andrew Martindale (University of Toronto) and Lisa Rankin (McMaster University). The research was conducted as a component of my PhD research on settlement patterns and trade in the upper Skeena watershed. The goal was to determine if there were major settlements present in the Kitwanga Valley prior to establishment of the Kitwanga Hillfort, which controlled trade along this traditional artery in the Proto-historic period (ca. AD 1,700 - 1,830). Site surveys were conducted on a judgemental basis, yet managed to cover 17 linear kilometres of the 32 km long valley, from its confluence with the Skeena River to its headwaters in Kitwanga Lake. Several small cache pit, lithic scatter, and CMT sites were recorded, along with one substantial habitation site. The latter site, recorded as GiTa 2, is a cluster of four pithouses on Kitwanga Lake. A small sample of charred wood from one house was radiocarbon dated to 220 ± 90 BP (Beta-88442), with a 2-sigma calibrated range of AD 1,470 to 1,950.

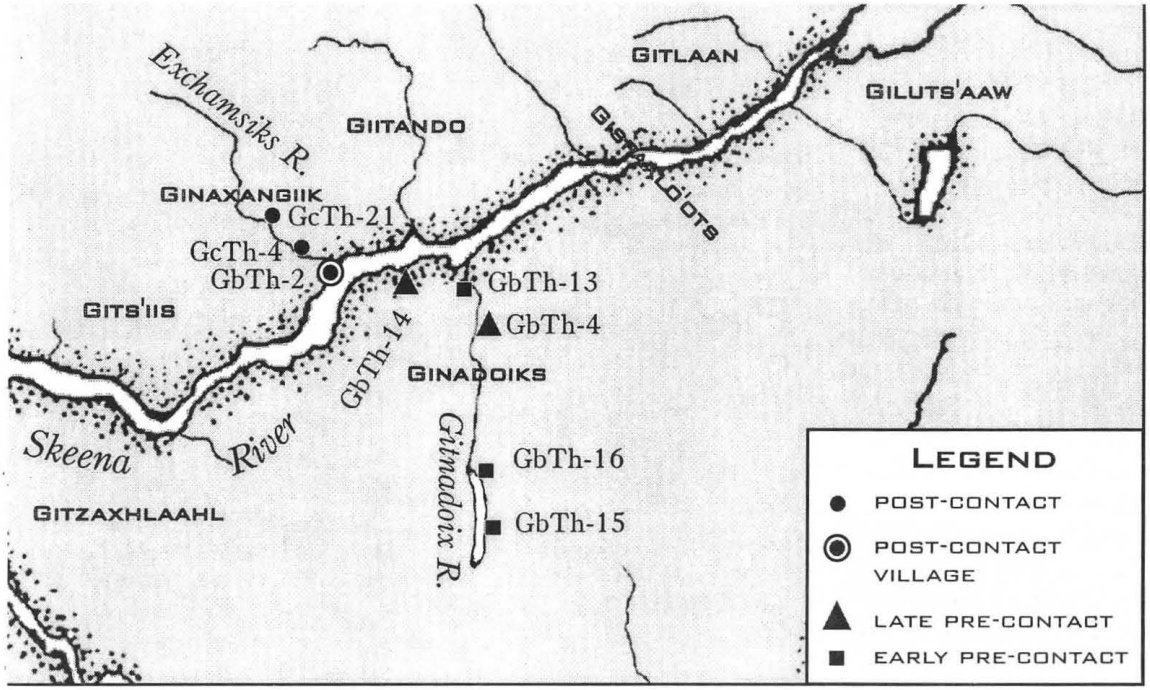
RECENT RESEARCH IN THE INTERIOR OF COAST TSIMSHIAN TERRITORY

Andrew Martindale (University of Toronto) prepared the following brief note on the results of his fieldwork in North - Central B.C.

We are fortunate on the Northwest Coast to have a rich ethnographic record from which to interpret archaeological remains. This is especially true of the Coast Tsimshian, whose territory includes the B.C. Coast from the Nass River south to Swindle Island, and an interior zone along the watershed of the lower Skeena River east to Kitselas Canyon. Archaeological data from this area is thought to represent a stable, Tsimshian-like culture which achieved its late pre-Contact form about 1,500 years ago and remained relatively stable until the arrival of Europeans in 1787. A key component of this model is a settlement pattern of seasonal migration in which village groups spent the winter months at large settlements around Prince Rupert (Metlakhatla), moved to the mouth of the Nass River for the early spring eulachon fishery, and eventually relocated to territories along the lower Skeena River for the summer months. It was during the summer months in the freshwater valleys of the Interior when the Coast Tsimshian collected the majority of their year's supply of food, primarily salmon, but also including land mammals and plant foods.

Details of the summer settlement pattern, even from the Contact period, are unclear. Pioneer ethnographer Franz Boas suggested that a winter village group split into its constituent households during the summer. Viola Garfield implied that each winter village group relocated to an analogous summer village within its interior territory. However, most ethnographers now agree that after Contact, the interior zone was largely abandoned as people moved to the new settlement around the Hudson's Bay Company post at Fort Simpson (a.k.a. Port Simpson or *Laxhlugu'alaams*).

My archaeological research has explored the settlement pattern of two interior river valleys tributary to the lower Skeena. In the past three field seasons I have surveyed the valley floor of the lower Exchamsiks River and entire Gitnadoix River (see map on page 16). A total of 32 new sites and three previously reported



sites were located; these are listed in the table.

I have conducted two field seasons of excavations at one Late Pre-Contact habitation site (GbTh 4, or *Psacelay*) on the Gitnadoix River, which will give us a clearer picture of interior social and economic organization prior to European Contact. Preliminary analysis suggests that the ethnographic picture is incomplete. For example, the primary economic activity which I have identified is blueberry collecting and processing, *not* salmon fishing.

This data also suggests that the settlement pattern of the interior is more complex than previously thought. Early Pre-Contact habitation sites contain small houses (6 × 4 m) and date to at least 500 BP. By the Late Pre-Contact phase, house size was over 12 × 10 m, on par with ethnographic descriptions of coastal houses. Furthermore, rather than abandonment of the interior zone, we see a consolidation of houses into villages after Contact. Thus, it appears that Boas' descriptions were more applicable to the Pre-Contact period, and Garfield's more so to the Post-Contact period.

Sites in the Exchamsiks and Gitnadoix River Valleys

Site Type	*Number*	*Estimated Age*
Village (10 buildings)	1	Post-Contact
Hunting cabin	2	Post-Contact
Large household settlement (>2 bldgs.)	2	Late Pre-Contact
Small household settlement (2 bldgs.)	2	Early Pre-Contact
Rock shelter	1	Early Pre-Contact
Lithic scatter	2	Pre-Contact
CMT site	21	Pre- to Post-Contact
Cache pit / CMT site	4	Pre- to Post-Contact

Lastly, I would like to acknowledge the B.C. Heritage Trust, which has provided financial assistance to this project, to support conservation of our heritage resources, gain further knowledge, and increase public understanding of the complete history of B.C. This research has also been supported by a fellowship grant from the Social Sciences and Humanities Research Council of Canada, and a research grant from the Associates of the University of Toronto.

RECENT RESEARCH ON THE CENTRAL COAST

Professor Aubrey Cannon (McMaster University, Hamilton, Ontario) prepared this statement on his recent research on the Central Coast, where he directed a SSHRC sponsored program of site testing in the traditional territory of the Heiltsuk Nation on the Central Coast.

A small team consisting of McMaster University graduate students and representatives of the Heiltsuk Cultural Education Centre spent four weeks in 1996, and again in 1997, mapping, coring, and bucket-auger sampling a total of 16 shell midden sites in the vicinity of Namu. The bucket-auger samples are being examined to determine the focus and intensity of local shellfish gathering and fishing economies, while the cores are providing an indication of site stratigraphy, as well as providing stratigraphically-intact samples of charcoal and shell for AMS radiocarbon dating. Analysis is ongoing, but preliminary results show an intensive focus on salmon and herring fisheries at most of the larger sites, but much less evidence of fishing and more indication of specialized shellfish gathering at many of the smaller sites. A total of 30 radiocarbon dates have been obtained so far. Almost all of the investigated sites show evidence of use or occupation into the late pre-Contact or European-Contact era, but they vary widely in their dates of initial utilization. Dates obtained from basal cultural deposits indicate initial occupation as early as 10,000 B.P at one site, and varying times from 3,500 to just over 6,000 B.P. at four others. All of the remaining sites date to the last 2,600 years, and most to within the last 2,000 years.

PERMITS

Issued by the Archaeological Branch, August - December 1997

The assistance of Mr. Ray Kenny, Manager, Assessment and Planning Section, in providing this information is gratefully acknowledged.

Note abbreviations: Insp[ection], Alt[eration], Inv[estigation] and also AIA — Archaeological Impact Assessment, AIS — Archaeological Inventory Survey, AIM — Archaeological Impact Management, AOA — Archaeological Overview Assessment, CMT — Culturally Modified Tree, CP — Cutting Permit., DL — District Lot, FD — Forest District, MoF — Ministry of Forestry, SBFEP — Small Business Forest Enterprise Programs, TFL — Tree Farm License, TL — Timber License, TSA — Timber Supply Area, TSL — Timber Sale License.

1997-226	Bert Wilson	INS	AIA for proposed water treatment plant within Lot 462, Section 21, Tp 4, QCLD, near Queen Charlotte City, QCI
1997-227	Andrew Mason	INV	Systematic data recovery from site DlSh 6 located on the south bank of Oyster River, south of Campbell River
1997-228	Barbara Kulle	INS	AIA of Penn West Petroleum Ltd. proposed Wildboy Gas Pipeline gathering system and plant, between Yeka Lake and BC/AB border
1997-229	David Schaepe	INS	Probabilistic and judgemental site survey within the Chilliwack River watershed
1997-230	Jeff Bailey	INS	AIA for proposed Mike Wiegele Helicopter Skiing proposed Saddle Mountain Resort development, near Blue River
1997-231	Ian Wilson	INS	AIA for Riverside Forest Products forestry operations in the asserted traditional territory of the Westbank First Nation, Okanagan TSA
1997-232	Mike Will	INS	AIA of proposed residential subdivision of DL 3869, ODYD, on the W side of Okanagan Lake
1997-233	Karen Preckel	INS	AIA of Slocan Forest Products, Vavenby Division forestry operations in the Clearwater FD
1997-234	Tina Christiansen	INS	AIA of proposed housing development within a portion of Blk 33, DL 2797, QCLD, as well as Lot 15, Queen Charlotte City, QCI
1997-235	Arne Carlson	INS	AIA of Plateau Forest Products (Slocan Group) forestry operations within FL A18157, Vanderhoof FD
1997-236	Jim Guido	ALT	Alterations to CMTs within various sites and woodlots, Morice FD
1997-237	Stan Price	ALT	Alterations to CMTs at EkSx 15 by construction of Cold Creek Mainline, S of Namu and N of Koeye Point
1997-238	Kevin Twohig	INS	AIA of Elk Bay Co.'s movie production area near Williams Lake
1997-239	David Biggs	ALT	Alterations to DdRu 4 by construction of North Trunk sewer line of Saanich Peninsula Sewer System
1997-240	Barbara Archer	ALT	CMT sampling at DjSf 37, Buckley Bay Main Road, Vancouver Island Highway Project
1997-241	Dale McTaggart	ALT	Alterations to DgRs 7 by construction of a storm drain along Beach Grove Road, Delta
1997-242	Brian Clozza	ALT	Alterations to CMTs within DgSh 12, near Skull Lake, Effingham Inlet, Vancouver Island
1997-243	John Dewhirst	INS	Site inventory and evaluation for proposed rezoning of Parcel A, DD 8915H, Section 19, Clayoquot District, located on Sechart Channel, Barkley Sound, Vancouver Island
1997-244	Susan Woods	INS	AIS within asserted Lhtako Band territory, Quesnel FD
1997-245	Bjorn Simonsen	INS	AIA for proposed 5-lot subdivision on N Part of SE 1/4, Section 10, Gabriola Island, Nanaimo District
1997-246	Vicki Feddema	INS	AIA of Timfor Contractors Ltd. forestry operations in FL A53812, S shore of Knight Inlet, Port McNeill and Campbell River FDs
1997-247	Stanley Copp	INS	AIA of MoF SBFEP forestry operations, Merritt FD
1997-248	Bjorn Simonsen	INS	AIA for proposed expansion of Brentwood College School on Lot 6, Blk D, Section 2, Rge 9, Shawnigan District, Plan 1720, 2715 Mt. Baker Road, Mill Bay
1997-249	Shawn Kenmuir	ALT	Alterations to CMTs #1, 2, and 5, within FkTg 1, in Cutblocks DH1A, CP 030, FLA A16820, near Kitkiata Inlet, North Coast FD
1997-250	Paul Ross	ALT	Alterations to CMTs within GgSp 55, Houston FP along the CP 541 access road r/w, Morice FD
1997-251	Arne Carlson	INS	AIA for proposed expansion of L&M Lumber logging camp under Special Use Permit 8735, on Natalkuz Lake, Lakes FD
1997-252	Bruce Ball	INS	AIA of various MoF timber sales forestry operations, Kamloops FD
1997-253	Arne Carlson	INS	AIA for TSL A49567, Cutblocks C1 and C3, near upper reaches of Salmon River, Prince George FD
1997-254	Clinton Coates	INS	AIA of proposed walking trail, W side of Skeena River, in vicinity of Old Kuldo Village and GlSx 1, Cassiar Land District
1997-255	Jeff Bailey	INS	AIA for Woodlot Licenses WOO38 (Blks 7 and 8) and WOO44 (Blks 4A, 5, and access road), Chilliwack FD
1997-256	Karen Preckel	INS	AIA of Weldwood and other licensee forestry operations in the Horsefly FD
1997-257	Peter Merchant	INS	AIA of MoF SBFEP forestry operations, Lakes FD
1997-258	Ian Wilson	INS	AIA of MoF forestry operations around Moberly River and Boucher Lake, Dawson Creek FD
1997-259	Nicole Oakes	INS	Site inventory in and within the vicinity of City of Nanaimo
1997-260	Keary Walde	INS	AIA of five pipeline developments proposed by Alliance Pipeline Ltd., Fort St. John
1997-261	Andrew Mason	INV	Monitoring for proposed expansion of LaFarge Canada cement plant, Richmond
1997-262	Harold Larson	ALT	Alterations to HeRe 113, Peace River Land District
1997-263	John Dewhirst	INS	AIA for proposed subdivision of part of Sections 18 and 19, Sooke District, on the lower hillside of Broom Hill, Sooke
1997-264	Richard Brolly	INS	AIA of proposed land sale of 17 recreational lots by BC LANDS, N shore of Young Lake, Lillooet District
1997-265	Keary Walde	INS	AIA of Federated Pipeline revised pipeline route on S side of Peace River from the Taylor Plant Site to BC/AB border and Six Mile Creek crossing, NE BC
1997-266	Amber Ridington	INS	AIA of DFO developments adjacent to the Chilko River within DL 599, Blk A, Cariboo Regional District
1997-267	Douglas Hudson	INS	AIA of access road proposed by Samahquam Band to lead from W boundary of Baptiste-Smith Reserve #1B to water reservoir, near Little Lillooet Lake
1997-268	Keary Walde	INV	Systematic data recovery and post-construction monitoring at HaRd 8, N bank of Peace River at Km 3+300 on Federated Pipeline Ltd. pipeline corridor near Taylor
1997-269	Andrew Mason	INS	AIA for proposed BC Ferry terminal and access road, within Lot 450, Powell River District, NWLD
1997-270	Susan Woods	INS	AIA of Babine Forest Products and Decker Lake Forest Products forestry operations in the Lakes FD
1997-271	Bruce Ball	INS	AIA of various proposed developments within DgRr 26, in Elgin Heritage Park, Surrey

1997-272	Morley Eldridge	INS	Inventory and AIA of J.S. Jones Timber Ltd. and other forest licensees' forestry operations in the Murray Creek, Twaal Creek, and Skoonka Creek watersheds near Spences Bridge
1997-273	John Dewhirst	INS	AIA for proposed Silver Spray Developments subdivision at the end of East Sooke Road in DL 13 and parts of DL 78 and 83, Sooke District
1997-274	Rick Howard	INS	AIA of Squamish Mills forestry operations within FL A19214, Squamish FD
1997-275	Martin Handly	INS	AIA of MoF, Tolko Industries and other forest licensees' forestry operations, Salmon Arm FD
1997-276	Ian Franck	INS	AIA of MoF SBFEP forestry operations, Lillooet FD
1997-277	Hans Granader	ALT	Alterations to CMTs at various sites on the W shore of South Bentinck Arm, opposite Noeick River
1997-278	Robert Lackowicz	INS	AIA of Gorman Brothers Ltd. forestry operations, Penticton FD
1997-279	Bruce Dahlstrom	INS	AIA for a proposed 16-lot residential subdivision near Little Qualicum Falls, Cameron District
1997-280	Bruce Ball	INS	AIA of IFP Ltd. forestry operations for Alex Creek Project, W of Adams Lake, Kamloops FD
1997-281	Arne Carlson	INS	AIA of L&M Lumber Ltd. forestry operations in FL A17842, Vanderhoof FD
1997-282	Richard Gilbert	INS	Inventory and AIA of MoF and forest licensees' forestry operations in the Prince George FD
1997-283	Lindsay Oliver	INV	Excavation and monitoring of DgRw 4 at 1695 El Verano Drive, Gabriola Island
1997-284	Morley Eldridge Jim Stafford	INS	AIA of MoF SBFEP forestry operations within South Island FD
1997-285	Ian Wilson	INS	AIA of Manalta Coal Ltd. proposed Telkwa Coal Project, near Telkwa
1997-286	Clinton Coates	INS	AIA of proposed FRBC improvements to Babine Trail between Hazelton and Babine Lake
1997-287	Keary Walde	INS	AIA of proposed Enco Gas pipeline near Cameron River and Alexander Creek, NE BC
1997-288	Vicki Feddema	INS	AIA of Skeena Sawmills forestry operations within FI A16820 and portions of TFL 41, Kalum and North Coast FDs
1997-289	Jeff Bailey	INV	Data recovery at DlRj 9, S of Nahatlatch River/Fraser River confluence
1997-290	Karen Preckel	INS	AIS of MoF forestry operations in 5 Woodlots, Horsefly FD
1997-291	Keary Walde	INS	AIA of proposed Novagas West Stoddart gas plant and related facilities, between Blueberry River and Taylor
1997-292	Bruce Ball	INS	AIA of MoF SBFEP forestry operations in the Salmon Arm FD
1997-293	Keary Walde	INS	AIA of proposed Talisman Energy wellsite WA 10675 located adjacent to Cord Lodge Road near Babcock Creek, NE BC
1997-294	Karen Preckel	INS	Site inventory of selected portions of 111 Creek drainage, 100 Mile FD
1997-295	Jennifer Lindberg	INS	Inventory and AIA within the grounds of St. Anne's Academy, Victoria
1997-296	Clinton Coates	INS	Site inventory and evaluation on proposed Lot D, DL 4929, Lillooet District
1997-297	Barbara Kulle	INS	AIA of proposed Amoco Canada Petroleum Co. Ltd. Mt. Monteith wellsite at d-13-A/93-O-15 and temporary winter access road, located between Mt. Monteith and Twin Sisters (Beattie Peaks), NE BC
1997-298	Keary Walde	INS	AIA of proposed Suncor Inc. wellsite and ancillary facilities, located W of Kiskatinaw River, NE BC
1997-299	Thomas McColm	ALT	Removal of existing buildings and minor landscaping on DeRu 1, Sai'klam, within Lillian Hoffar Park, District of North Saanich
1997-300	Andrew Mason	INS	AIA of MacMillan Bloedel forestry operations within CB WL 901 and access road, TFL 39, NWLD
1997-301	Bradley Bennett	ALT	Alterations to sites in the Arrowstone Quarry Area by construction of access road and timber harvesting associated with CP 554, Blks 01-04, and CP 558, Blks 01-08, by Ainsworth Lumber Co. within FL A18690 and Pulpwood Agreement #16, Kamloops FD
1997-302	Keary Walde	INS	AIA for Berkley Petroleum Corporation's 3D seismic program near Halfway River IR#168
1997-303	Ian Wilson	INS	Site inventory of Klashkish Watershed and Klaskino Inlet, Port McNeill FD
1997-304	Keary Walde	INS	AIA of proposed Union Pacific Resources wellsite and other developments at b-84-F 97B/8, NE BC
1997-305	Kevin Twohig	INS	Site inventory within the asserted traditional territory of the Canoe Creek, Soda Creek and Williams Lake First Nations, Cariboo Forest Region
1997-306	Peter Merchant	INS	AIA for proposed mobile-home park, W side of Harrison River N of Harrison Mills
1997-307	Richard Brolly	INS	AIA of Interfor forestry operations within cut blocks 72-14, 72, 16, 101-7, 101-81B, 101-83, and 101-86, TFL 38, Squamish FD
1997-308	Morley Eldridge	INV	Emergency AIA and management of alterations to DeRu 1 during house renovations at 10635 Blue Heron Road, North Saanich
1997-309	Ian Wilson	INS	AIA of Interfor forestry operations in the Chilliwack FD
1997-310	Keary Walde	INS	AIA for proposed Petro Canada wellsites and ancillary facilities, within map sheet 94 G/9 in asserted traditional territory of the Prophet River First Nation, NE BC
1997-311	Douglas Kenyon	ALT	Alterations to DiQv 38 by commercial development of Blocks 2 and 16, Plan 4397, DL 374, SDYD, near Okanagan Falls
1997-312	Bruce Ball	INS	AIA of MoF SBFEP forestry operations in the Chilcotin FD
1997-313	Richard Brolly	INS	AIA for proposed subdivision near EfQs 2, Horseshoe Bay Marine Park, Shuswap Lake
1997-314	Karen Preckel	ALT	Redistribution to original position of a pile of topsoil containing disturbed cultural materials from ElRn 2, within Section 36, Tp 48, Lillooet District, W side of Fraser River, S of Sheep Creek Bridge
1997-315	John Maxwell	INV	Systematic data recovery at EdRa 14, between Campbell Creek and Monte Creek
1997-316	Phillip Hobler	INS	AIA for proposed Midcoast Aquatics salmon groundwater rearing/overwintering pond on W bank of Noosgulch Creek near its confluence with Bella Coola River
1997-317	Heather Pratt	INS	AIA for MoF Woodlots W010, W029, W039, W046, W1672 and W1674, Sunshine Coast FD
1997-318	Bruce Dahlstrom	INS	AIA for proposed Chaucer Homes Ltd. townhouse development in Lot 3, Section 23, Esquimault District, Plan VIP 61203 near Thetis Cove
1997-319	Martin Handly	INS	AIA for proposed gravel extraction, Camp McKinney Gravel Reserve, 8.5 km N of Bridesville, MoTH Kootenays
1997-320	John Maxwell	INS	AIA of Western Forest Products forestry operations in Aaltanhash Inlet Forest Operation, Mid-Coast FD
1997-321	Bruce Dahlstrom	INS	AIA for Ledcor Industries' proposed landing sites for a telecommunications cable, at Thetis Cove, Fleming Bay, and Nanoose Harbour
1997-322	Antony Hewer	INS	AIA for proposed residential development at 323 Kinver Street, Fleming Bay, Municipality of Esquimault
1997-323	Sari Fleming	ALT	Alterations to DiRu 33, 56, and 60 by house construction, DL 877, Gabriola Island, NWD
1997-324	Dana Lepofsky	INS	AIA of forestry operations within Woodlot W0089, Weaver Creek watershed, Chilliwack FD
1997-325	Barrie LeBlond	ALT	Machine excavation of deposits within EdRa 14 for highway upgrade/realignment, near Campbell Creek
1997-326	John Dewhirst	INS	AIA for proposed subdivision on Lot 4, Sections 33 and 37, south Saltspring Island, Cowichan District, in vicinity of DeRv 4

1997-327	Susan Woods	INS	AIA for MoTH Gook Road operations and portions of Dragon Lake IR#3, W side of Dragon Lake near Quesnel
1997-328	Duncan McLaren	INS	Site inventory/AIA along shoreline of Lower Stave River for BCHydro watershed management program
1997-329	Gary Adolph	ALT	Alterations to CMT, vicinity of Alan Reach, North Coast FD
1997-330	Jeff Bailey	INS	AIA for proposed Camp Nor'wester summer camp development with NE 1/4 of Section 18, Cortez Island, Sayward Land District
1997-331	Barbara Kulle	INS	AIA of Pine Valley Coal Ltd. Willow Creek Mining Project and ancillary facilities near the confluence of Pine River and Willow Creek
1997-332	Jennifer Lindberg	INS	AIA for proposed Centra Gas BC gas pipeline at Harling Point, Oak Bay
1997-333	Dale Pilling	ALT	Alterations to EaQu 18, 55 and 56 by construction of Caesars Lakeshore Estates Ltd. resort complex within DL 1292, ODYD, W side of Okanagan Lake
1997-334	Ian Wilson	INS	AIA for proposed BCBC land sale of property located at 46060 Chilliwack Central Road, Chilliwack
1997-335	Lindsay Oliver	INS	AIA of proposed modifications to residence at 1761 El Verano Drive, Gabriola Island, Lot 19, Section 28, Plan 17835, Nanaimo District
1997-336	Jeff Bailey	INS	AIA of Pretty Timber Co. forestry operations within Blks 2175, 2507, and 3126, Chilliwack FD
1997-337	Gil Stoik	ALT	Geotechnical testing within portion of DgRr 1, DL 52, Ldist 36, Surrey
1997-338	Dean Wanless	ALT	Alterations to CMTs within FL A19235, TL 182 and TL 259, TFL 54, Port Alberni and Campbell River FDs
1997-339	David Schaepe	INS	AIA of upgrades to 7 Forest Service Recreation Sites along Harrison Lake, Chehalis Lake, and Salisbury Lake, Chilliwack FD
1997-340	Heather Pratt	INS	AIA of MoF forestry operations within Woodlots W027 near Cheekeye River and W028 between Mamquam and Stawamus Rivers, Squamish FD
1997-341	Jim Stafford	INS	AIA of MoF forestry operations within Woodlots WL40, WL070 and WL1684, near Blackwater and Haylmore Creeks, Squamish FD
1997-342	Anthony Hewer	INS	AIA of past and proposed land-altering activities relating to house expansion and garage construction at 2422 Esplanade Avenue, Oak Bay, Capital Regional District
1997-343	Morley Eldridge	INV	Emergency AIA and assessment of alterations made to DcRt 16 due to house demolition and construction at 430 Beach Drive on McNeill Bay, Oak Bay
1997-344	John Maxwell Tina Christensen	INS	Inventory of Pacific Marine Heritage Legacy Lands, Southern Gulf Islands; Campbell Point/Bennett Bay (Mayne Is.), James Bay and Selby Cove (Prescott Is.), Shingle Bay and Otter Bay (N Pender Is.), Russel, Tumbo, Jervis, and Bunny Is., and Crown Lands/Provincial Parks on Saltspring, Galiano, Mayne, Saturna, N & S Pender Islands
1997-345	Andrew Mason	INV	Systematic assessment and data recovery of portions of DjSf 13 within V.I. Highway Project right-of-way, junction of Hwy 19 and Buckley Bay Main Road
1997-346	John Maxwell	INS	Inventory of Green River Watershed, Hole in the Wall, Fog Creek, Jenny Bay, and Four Lakes areas located on W side of King Island
1997-347	Gary Adoph	ALT	Alterations to FkTm 1, located at proposed Scoular Creek crossing of the Branch 1 access road, near Captain Cove, North Coast FD

Letter to the Editor

December 1, 1997

Dear *Midden* Editor:

While preparing an article for *Archivaria*, the journal of the Association of Canadian Archivists, I encountered various iterations of the terms used in archaeological circles to denote *tree art*. As a logophile and an occasional archaeologist, I was concerned about the lack of consistency: Was it, in the case of drawings on trees, "arborgraphs," "arborographs,"or "dendrographs?" Likewise, insofar as etchings on trees were concerned, was it "arborglyphs," or "dendroglyphs"?

At the risk of being labelled a logomachist, I raise the following points: (1) the *arbor-* terms do not use a combining form, which requires a vowel; (2) although the *arboro-* terms try to alleviate this oversight, the correct combining form is *arbori-*; and (3) a basic tenet of technical term construction holds that Latin and Greek elements should not be mixed, and, since *arbor* is Latin for "tree," the Greek equivalent, *dendron* (combining form, *dendro-*), is more appropriate when used in conjunction with the Greek *graph* and *glyph*-which, it would seem, renders the first two points moot. The professor who taught me about technical terms, Dr. Gerald Sandy of the Department of Classics at UBC, agrees with this analysis and, by extension, the conclusion that dendrographs and dendroglyphs should be the terms of choice, generally speaking. There are, of course, aboriginal words for the same phenomena, and I refer readers to Michael Blackstock's MA thesis, "Gyetim Gan: Faces in the Forest," completed in 1996 at UNBC, for examples in the Gitxsan context.

To some, it may be a trivial and insignificant detail, but, to others, the degree to which the terminology of a discipline is used rigorously and consistently may be interpreted --rightly or wrongly-- as a reflection of the amount of rigor and consistency permeating a discipline's theory, method, and practice. Hyperbole, maybe. I throw it out to *Midden* readers for discussion.

Sincerely, [signed] Shauna McRanor
Master of Archival Studies Programme, University of British Columbia
email: shaunamm@unixg.ubc.ca

RECENT PUBLICATIONS

I. ARCHAEOLOGY

BERNICK, KATHRYN, ed., 1998, *Hidden Dimensions: The Cultural Significance of Wetland Archaeology*. UBC Laboratory of Archaeology Monographs, UBC Press, Vancouver. 320 pp., illus.. Price: *ISBN 0-7748-0632-X* (Hc) $95.00 CDN.

CROCKFORD, SUSAN J., 1997, *Osteometry of Makah and Coast Salish Dogs*. Archaeology Press, Publication 22. Simon Fraser University, Burnaby. 133 pp., illus., appendices, refs. Price: *ISBN 0-86491-165-3* (Pb) $30.00 CDN.

HALL, ROBERTA L., 1995, *People of the Coquille Estuary: Native Use of Resources on the Oregon Coast*. Words & Pictures Unlimited, Corvallis, OR. Price: *ISBN 0-9619886-2-2* (Pb) $35.00 US.

HAYDEN, BRIAN., 1997, *The Pithouses of Keatley Creek: Complex Hunter-Gatherers of the Northwest Plateau*. Harcourt Brace College Publishers, Fort Worth. Price: *ISBN 0-15-503837-0*, (Pb) $25.50 CDN.

HEBDA, RICHARD J., AND JAMES C. HAGGARTY. eds., 1997, *Brooks Peninsula: An Ice Age Refugium on Vancouver Island*. BC Parks Occasional Papers No. 5, Ministry of Environment, Lands and Parks, Victoria. ii + 482 pp., illus., index. Price: *ISBN 0-7726-3139-5* (Pb) $40.00 + GST.

HESTER, THOMAS, HARRY J. SHAFER, AND KENNETH L. FEDER, eds., 1997, *Field Methods in Archaeology*. Seventh Edition. Mayfield Publishing Co., Mountain View, CA. 592 pp.. Price: *ISBN 1-55934-799-6* (Hc); *ISBN 1-55934-811-9* (Pb), no prices given.

VAN DER LEEUW, SANDER, AND JAMES MCGLADE, eds., 1997, *Time, Process and Structured Transformation in Archaeology*. Routledge, London and New York. One World Archaeology Series. 496 pp., illus. index. Price: *ISBN 0-415-11788-7* (Hc) $79.95 US/$111.95 CDN.

II. ETHNOLOGY AND MATERIAL CULTURE

BLACK, MARTHA, 1997, *Bella Bella: A Season of Heiltsuk Art*. Douglas & McIntyre, Vancouver. 224 pp., illus.. Price: *ISBN 1-55054-556-6* (Pb) $45.00 CDN.

CARLSON, KEITH THOR, ed., 1997, *You Are Asked To Witness: The Stó:lo in Canada's Pacific Coast History*. Stó:lo Heritage Trust, Chilliwack. vi + 210 pp., illus., notes, index. Price: *ISBN 0-9681577-0-X* (Pb) $30.00 CDN.

DUFF, WILSON, 1997, *The Indian History of British Columbia: The Impact of the White Man*. Third Edition. Anthropology in British Columbia Memoirs 5. Royal British Columbia Museum/UBC Press, Vancouver. 184 pp., tbls., illus., apps., bib., index. Price: *ISBN 0-7718-9483-X* (Pb) $14.95 CDN.

SCHWARTZ, MARION, 1997, *A History of Dogs in the Early Americas*. Yale University Press, New Haven. xiv + 226 pp., illus., apps., notes, refs, index. Price: *ISBN 0-300-06964-2* (Hc). No price given.

TEIT, JAMES ALEXANDER, 1900, *The Thompson Indians of British Columbia*. 1997 Reprint. Nicola Valley Museum Archives Association, Merritt. Price: $29.95 + $5.00 S/H. Order from: Nicola Valley Museum Archives Association, 2202 Jackson Avenue, PO Box 1262, Merritt, BC V1K 1B8.

TURNER, NANCY J., 1997, *Food Plants of Interior First Peoples*. Royal British Columbia Museum Handbook. UBC Press, Vancouver. 192 pp., illus.. Price: *ISBN 0-7748-0606-0* (Pb) $24.95 CDN.

CONFERENCES

1998

April 16-18 **51st Annual Northwest Anthropological Conference**

UNIVERSITY OF MONTANA, Missoula, Montana
Contact: *Dr. Thomas A. Foor, Chair, Department of Anthropology, University of Montana, Missoula, Montana, 59812, USA.*

May 6-10 **CAA, Canadian Archaeological Society, 31st Annual Meeting**
Victoria, BC

For general, logistical, travel and accommodation inquires contact: *Conference Co-ordinator, Bjorn Simonsen; Tel. (250) 715-1566; Fax: (250) 746-1915; Email: caa98@uvic.ca*
For academic program and session organization inquiries contact: *Academic Program Chairs, Quentin Mackie, Department of Anthropology, and Sandra Peacock, School of Environmental Studies, University of Victoria; Tel. (250) 721-7055 [Mackie]; Fax: (250) 721-6215 [Mackie]; Email: caa98@uvic.ca*

August 23-29 **8th International Congress of the International Council for Archaeozoology (ICAZ '98)**
UNIVERSITY OF VICTORIA, Victoria, BC

Proposed sessions include: Dogs: Origins, Regional Variation and Breed Development in Dogs; High Resolution Faunas at the Pleistocene/Holocene Boundary; Reassessing Evidence for Mousterian Hunting Patterns; Introductions and Extinctions on Oceanic Islands: Evidence, Issues and Theory; Archaeozoology of Oceanic Marine Taxa: The State of the Art; Oceanic Midden Analysis: Problems, Methods and Results; Patterns of Faunal Exploitation in Pacific Prehistory: From Observation to Explanation.

Contact: *Conference Management, Division of Continuing Studies, University of Victoria, University Centre, 2nd Floor, Room A277, Box 3030, Victoria, BC, Canada, V8W 3N6; Tel. (250) 721-8470; Fax (250) 721-8774; Email morouke@uvic.ca; Web http://www.uvcs.uvic.ca/conferce/admin.htm*

November 12-15 **Chacmool, 31st Annual Conference**, "On Being First" Cultural Innovation and Environmental Consequences of First Peoplings
UNIVERSITY OF CALGARY, Calgary, Alberta

The 31st Annual Chacmool Conference will focus on the consequences of peopling places that until recently (geologically) were uninhabited by humans. Bringing together researches from North and South America, the Caribbean and the Pacific, it is hoped they will recognize common themes that can be used to better address the problems of archaeological investigation of the peopling process, in light of new analytical techniques and discoveries, and broadening theoretical perspectives.

Preliminary topic suggestions include: Motivation and Exploratory Behavior: Is the Grass Really Greener?; Technology, Innovation, and Adaptation; Human and Biotic Responses to Environmental Changes; Human Impact on the Biogeography of "Pristine" Environments; Life Without Neighbors: Settlement Patterns on a Non-Human Landscape; Native Perspectives on Origins; Eve of a New Generation OR Sex and the Single Migrant; Context, Site Discovery, and Paradigmatic Constraints; Prehistoric Perceptions: The Relationship between Event and Human Decision-Making; New Approaches to Interpreting Physical Evidence. Further suggestions are both welcomed and encouraged.

Contact: *1998 Conference Committee, Department of Archaeology, University of Calgary, Calgary, AB, T2N 1N4; Tel. (403) 220-5227; Fax (403) 282-9567.*

EXHIBITS

Museum of Anthropology

Heredity: Hereditary Chiefs of the Haida

April 29 to December 31, 1998

This is an exhibition of 11 photo-based artwork by Todd Tyarm depicting hereditary chiefs of Haida Gwaii. It explores the idea of heredity as a vital link between the past and present, as well as the future. His works offers insight into both the heritage of the Haida, and the thoughts, names, and stories of the people who represent its living legacy.

Attributed to Edenshaw

April 29 to December 31, 1998

This exhibit, opening jointly with "Heredity: Hereditary Chiefs of the Haida," features artwork in basketry, gold, silver, argillite, and wood by celebrated Haida Artist Charles Edenshaw and his wife Isabella Edenshaw.

THE MIDDEN

P.O. Box 520
Bentall Station
Vancouver, B.C.
V6C 2N3