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1997 FIELD SCHOOLS

THE MIDDEN

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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.

10 December 1997 - Speaker: Colin Grier, Department of Anthropology Arizona State University.
Household Archaeology at Dionisio Point - 1997 Excavations.

14 January, 1998 - Speaker: Stan Copp, Department of Anthropology, Langara College.
A Plateau Microblade Tradition (PMt) Site, Upper Similkameen Valley.

THE MIDDEN

INTRODUCTION

Since the late 1940's, many archaeological field schools have been conducted during the spring and summer months throughout British Columbia. Initially with the University of British Columbia, followed by the University of Victoria, Simon Fraser University, and several post secondary colleges, both anthropology and archaeology undergraduates have been instructed in archaeological field methods and artifact cataloguing. From these archaeological field schools many of the academic and consulting archaeologists have sprung. Field schools have also facilitated important research at several significant and well-known prehistoric sites such as Milliken (DjRi 3), Namu (ElSx 1), Glenrose Cannery (DgRr 6), Crescent Beach (DgRr 1), Keatly Creek (EeRl 7), and Pender Island (DeRt 1), just to mention a few. Historical sites such as Fort Langley, the Peace River Basin, and Vancouver's Chinatown, have also received the attention of several field schools. Today, this research continues, with more archaeological field schools and students participating than ever before.

This issue is dedicated to some of the many archaeological field schools currently being undertaken throughout British Columbia. In five articles, the authors discuss the field schools conducted by the University of British Columbia (Xáy:tem, DgRn 23); Simon Fraser University (Scowlitz DhRl 16); University of Victoria (Kosapsom Park, DcRu 4); University of Western Washington (Skagit River Valley, DgRg 4); and the North Island College, Port Alberni Campus (McLean Mill National Historic Site, 1123T). We would like to thank Natasha Lyons, Jean C. Young, David Pokotylo, Terry Clark, and Kelly Bush for their timely contributions.

Robbin Chatan and Heather Myles

Front Page

Excavations at *Xá:ytem:* From left to right: Jean Young, Christine Dahlo, and David Pokotylo excavate a hearth feature. Photo by Ann Mohs.
See: "Ongoing Investigations at Xá:ytem, the Hatzic Rock Site (DgRn 23)" on pages 4 and 5

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THE 1997 SIMON FRASER UNIVERSITY FIELD SEASON AT SCOWLITZ

by Natasha Lyons

Introduction

The 1997 Simon Fraser University field school took place at the Scowlitz site (DhRl 16), which is located on the west bank of the Harrison River where it feeds into the lower Fraser River near Chilliwack, BC. Together these waterways connect interior with coastal BC and forged a major trade and transport link for resident and neighbouring populations in prehistory. The complex and long term nature of the deposits at Scowlitz are evidence of its strategic location and archaeological importance.

The initiation of an archaeological project by Stó:lo Nation and the Scowlitz Band in 1992 has precipitated an ongoing collaboration between the Stó:lo and both UBC and SFU. The successive projects have yielded valuable information on mortuary practices and house forms, two of the sites's major components. The 1992 field school, under the direction of UBC Professor Michael Blake, excavated two earthen burial mounds; Mound #1, the largest and most elaborate burial mound, and Mound #23, a mid-sized mound. Radiocarbon results indicate that the mound complex at the site dates to between 1,000 and 1,500 BP. A surface found underlying Mound #23, possibly the floor of an earlier structure, dated to circa 2,500 BP suggesting an occupation preceding the mound complex (see Midden articles, October 1992 and February 1993).

The two subsequent seasons focussed on the house platforms that line the river terrace. In 1993, UBC Professor R.G. Matson confirmed that the cultural depressions along the riverbank are indeed house remains. Excavations headed by Professor Michael Blake and MA student Sandra Morrison in 1995 uncovered a 16 x 3m segment in one of these depressions, identifying four superimposed surfaces, each separated by construction fill. Radiocarbon assays date structure 2 to approximately 1,000 BP and structure 3 to between 2,200 and 2,500 BP. No dates are yet associated with the earliest defined structure 4, but the artifact assemblage and stratigraphy suggest site use as early as 3,500 years ago.

In 1997, the SFU Department of Archaeology joined the research project at Scowlitz. During June and July of this summer, Dr. Dana Lepofsky and PhD student Doug Brown supervised an excavation crew of almost thirty field school students and volunteers. The goal of this season's research design was to broaden and refine the findings of previous field seasons. Large scale areal excavation, test pitting, and survey were employed to answer questions about site formation, the stratigraphic relationship between houses and burials, and about the relationship between the site proper and its environs.

House Floors

One of the primary goals this season was to gain detailed information on prehistoric house forms by exposing large sections of house floors through areal excavations. The 1995 trench and profile established a sequence of occupations which serve as a guideline for identifying and defining the structures. Areal excavation was intended to help determine the structure's dimensions and characteristics, as well as the distribution of features, artifacts, and organic remains on the structures' floors. Since the fill matrix is redeposited, the sampling strategy was to collect column samples and 100% of floor surfaces for later identification and analysis of faunal and paleobotanical materials.

Initial excavations this season focussed on tracing out the uppermost structure 1, a surface which seems to correspond with a levelled, construction platform built up on the terrace. This objective was accomplished by peeling back the sod layer to expose the structure's floor. On the north side of the trench, this goal was frustrated by the intrusion of historic deposits. (Stó:lo Elders informed us that this area was indeed remembered as an historic period fish camp). We met considerable success, however, in the excavation's less historically disturbed south area, where 80m^2 of the structure 1 surface was exposed.

This surface has convincing earthen floor attributes; it is compact, rock free, and has burned patches and charcoal flecks. The dimensions are defined by an upslope at the western edge and a downslope at the eastern, giving the surface a 10m width. The length of the known surface is 14m from north to south, while the length of the potentially corresponding platform is 20 m. Associated features include a posthole along the proposed south border and a possible hearth in the southeast corner. Fifty artifacts were found associated with the surface, varying in type from quartz microblades to chalcedony and basalt flakes, and ground slate fragments.

The earlier structure 2 and 3 floors were also located minimally explored at the close of the season, in a 1 x 6 m trench across the north side of the excavation. Structure 2 was detected only in small, very thin patches, while the earlier structure 3 was more pronounced, as its prepared clay surface facilitated identification. These floors are defined by greasy, compact, silty clay. The extent of either surface is unknown, though the structure 3 floor seems to be associated with features cut into sterile on the trench's south side. The 1998 season will continue clarifying the extent and nature of these earlier structures.

Burial Features

A second goal of the 1997 season was to explore the stratigraphic relationship between houses and burials. To this end, we dug a series of 1 x 1's stretching up the hill from the main excavation, toward the steep slope behind the burial mounds.

One unit of particular interest cut the edge of a small mound. Within the mound's black, rocky matrix, were a burned layer near its surface and a grey clay layer near its base, which pinched off at the mound's "corner".. This stratigraphy is suggestive of the pattern known for other Coast Salish mound burials, where: the burial pit was lined with clay; the body was interred and pit filled with the same soil from which it was dug out; and the resultant mound was capped with a different material and possibly burned in an offertory ceremony. The excavated mound differed from others excavated on site, in not containing a rock alignment around the burial cyst. A charcoal sample was recovered from within the mound context, and when dated, may offer further explanation for this variant. The date will also contribute to the little known chronology and overall patterning of Coast Salish mound burials.

In the areal household excavation we discovered what appears to be a burial surface consisting of destroyed mound features. This surface is mottled in appearance, has extensive clay patches, and most notably, is associated with several clusters of cairn-like rock formations. A feature appearing to be a clay-lined burial pit was excavated with the permission of the Scowlitz Band, though results are thus far inconclusive. One hypothesis is that this surface was a burial preparation and interment area that was levelled during construction in a later building episode. Further excavation should provide more information about its nature and relation to earlier house floors, but the presence of a cemetery between the floor deposits suggests a complex sequence of changing use of the site through time.

Survey

The third goal this season was to initiate a survey for archaeological remains in the area surrounding the Scowlitz village site. Previous archaeological reconnaissance by UBC field schools and other recorded site locations indicate a long and varied use of this area. The aim of the project is to ascertain the extent and character of cultural features in the area around Harrison Bay in order to place Scowlitz within a larger social landscape. The archaeological survey is being conducted by SFU PhD student Nicole Oakes, as part of a research project on past settlement and land use in the Upper Fraser Valley. This summer's preliminary field season was extremely successful, as archaeological reconnaissance located over 75 burial mounds, and two new forms of burial features were discerned. Intensive survey work will continue this fall and winter, after the deciduous greenery has died back.

West facing view of the early areal excavation. Photo by Shelly Meyer.

Community Involvement

A close working relationship has developed between the Scowlitz and archaeological communities through successive field seasons. Social events during the excavation season are frequent, including feasts, slide shows, and site visits. Several Scowlitz Band members were involved throughout the project as excavators and advisors. This year, a concerted effort was also made to reach the wider community in the form of public presentations and articles in the local news.

The strength of this project has also been facilitated by the collaboration between the excavating teams and the Scowlitz administration. Chief and council have been foremost consultants in the discussions and decision-making surrounding such sensitive issues as burial deposits and reinterments. Their role further encompasses maintaining the spiritual health of the site and crew. This season Elder Vincent Stogan from the Musqueam Band was invited to perform two burning ceremonies to honour the ancestors, one at the beginning and one at the close of the season. Mr. Stogan affirmed that the Scowlitz ancestors were pleased with the work being conducted on their land.

Future Direction

The 1997 SFU field season generated a number of provocative questions about site formation and the relationship between the house and mortuary components at Scowlitz. This season we exposed two surfaces and begun to clarify the formation and use of each. Next summer's excavation will continue with this line of investigation, in addition to increasing our knowledge about the nature of the earlier structures.

Our goal is to eventually develop a solid chronological sequence for the human events which created the Scowlitz deposits. Survey work will help fill in the broader picture of how early Scowlitz residents used and thought about their environment. The information being gathered by this project has a large contribution to make archaeologically, to our knowledge about the Upper Stó:lo, and to the Scowlitz people, and the collective understanding of their past.

Natasha Lyons, an MA student at SFU, participated in the 1995 UBC field school at Scowlitz and was a field supervisor for the 1997 SFU field school.

ONGOING INVESTIGATIONS AT XÁ:YTEM, THE HATZIC ROCK SITE (DgRn 23)

1997 UBC ARCHAEOLOGICAL FIELD SCHOOL

by Jean C. Young and David Pokotylo

The 1997 UBC archaeological field school was held at *Xá:ytem*, also known as the Hatzic Rock site (DgRn 23), which lies on an ancient terrace of the Fraser River, approximately 3 km east of Mission. Since the site was first threatened with development in 1990, archaeologists from the Stó:lo Nation and UBC have collaborated in their investigations. The initial excavations in 1991 exposed a semi-subterranean house dating to ca. 4,500-5,000 BP and subsequent investigations in 1994 found open-air activity deposits which predate the house deposits by as much as 2,000 years. This year's investigation was aimed at locating the remains of additional dwellings and recovering material for radiocarbon dating to determine the temporal relationship between this deposit and those previously excavated.

The director of the archaeological field school was Dr. David Pokotylo, who has been involved in investigations at *Xá:ytem* since 1991. Other field personnel included Jean Young as crew chief/teaching assistant, Joyce Johnson as lab supervisor and 12 students enrolled in the UBC archaeological field school.

Xá:ytem is the Halq'emélyem name for a large boulder that rests in dramatic isolation on the river terrace at the site. This is one of the "stone people" sites where three *Si:yá:m* were transformed into stone by *Xá:ls*, the Transformer, and is a significant spiritual place to the Stó:lo. The importance of *Xá:ytem* as a heritage site led to the property being held by BC Heritage Trust, and the recognition of the site as a National Historic Site by the federal government. The Stó:lo Nation and the Province of British Columbia are partners in its management. The *Xá:ytem* Longhouse Interpretive Centre is a Stó:lo designed and run facility which presents the spiritual, cultural and archaeological significance of the site to thousands of school children and the public each year.

The site was discovered when Stó:lo oral traditions surrounding *Xá:ytem* led Gordon Mohs, heritage advisor for the Stó:lo Nation, to the property, which had just had a meter of deposit removed by a bulldozer, prior to development. Subsequent excavations at *Xá:ytem* have provided the first detailed study of an inland Charles Culture settlement. The semi-subterranean house uncovered during the 1991 excavations shares design and construction elements in common with both the pit houses and shed-roof plank houses of the ethnographic period (Mason 1994:122). To date, the only other evidence of large plank houses during the Charles Culture comes from the Maurer site.

In 1994, investigations focused on the western portion of the lower terrace where a previous backhoe excavation trench had uncovered post molds and lithic artifacts. Remote sensing (electrical conductivity and ground penetrating radar) was used to determine the optimum location for 12 1 x 1m excavation units. The density of lithic artifacts recovered was low but 34 features were identified in the trench, including stake and post molds, large pits, a smudge pit and a floor-like deposit in the eastern-most unit. A carbon sample collected 10 cm above this floor-like deposit yielded a date of 4,950 BP. The continuity of the cultural deposits gave rise to the definition of a single cultural component which is thought to represent a terminal Old Cordilleran/early Charles Culture occupation.

The objective of this year's research at *Xá:ytem* was to determine if the distinct floor-like layer encountered in the eastern-most unit of the 1994 excavations represented the remains of another house. While the presence of one substantial house in 1991 had already indicated the existence of a higher degree of sedentism than usually attributed to the Charles Culture, two or more contemporaneous houses would suggest a more substantial settlement on the banks of the Fraser, 5,000 years ago.

Given the nature of the research question was only to determine the existence of dwelling remains and the recovery of material for radiocarbon dating, rather than precise structural details of the house, wide area exposure of encountered structures was not essential. Rather, the excavations took a conservation-minded exploratory approach in which 12, 1 x 1m contiguously arranged excavation units were sampled in a 7 x 7m area. (see photo on next page) This approach presented continuous profiles on both the north-south and east-west axes. The units were dug in natural layers, with arbitrary levels where required, in 50 cm square subunits. Each student was responsible for the excavation of his or her unit, including all aspects of recording, cleaning and cataloguing of the artifacts collected, and a report synthesizing the results of their specific unit. The students also participated in the ongoing mapping of the site under the guidance of Joyce Johnson.

On the second Monday of the field school we returned to the site to discover that it had been vandalized. Only excavation of the surface humic layer had begun, so little lasting damage was done, but precious field time was wasted reestablishing vertical and horizontal datum stakes for the

individual units, as these had all been kicked over. The staff of the Longhouse Interpretive Centre notified the police, and they also ensured that an article decrying the vandalism appeared in the next issue of the local paper. This incident certainly confirmed for the students the need for public education archaeology in the protection of sites. As a consequence, themes of individual and community responsibility for the protection of archaeological sites was emphasized by the students as they took their turns interpreting the excavation to tours of school children.

We expected to reach cultural deposits immediately below the surface layer, due to the previous bulldozer activity at the site. However, we soon discovered that some units had a considerable layer of sterile silt, which had washed down the slope when the initial ground cover had been removed in 1990. This understanding was facilitated by the use of coring to determine the depth of deposits within individual units. This method was used throughout the excavation and allowed Dr. Pokotylo to decide when expedient measures, such as shovel shaving, could be employed and when extreme care was required. By the end of the second week several units had reached the cultural layer and our first hearth was under excavation. (See photo on front cover)

As the removal of the cultural deposit proceeded we were able to interpret the growing complex of features as the remains of a house. The northernmost units appear to have a bench area cut into the river terrace running along a northeast axis. Several stake and post molds also follow this same line and may represent wall support posts. Immediately south of this area, some very large post molds were profiled, such as would be required to support a sizable structure. Hearths were also found and one extremely large pit spanned the larger part of two units and reached a depth of 96 cm. Several smaller pits were also uncovered, including a possible boiling pit. A utilized anvil stone was found with its support stone still in position.

In one of the units in the bench area, two Charles Culture contracting stem points were discovered in vertical deposition within a pit-like feature, which also contained oxidized earth, fire-altered rock and ochre. Only 5-6 cm away a carved slate decorative object, which may have been a pendant, was also found in a vertical orientation. All three artifacts were unbroken and close to post molds. Given the deliberate nature of their placement they may have served a ceremonial function.

An overview of the Xá:ytem excavations showing the contiguous arrangement of excavation units. Photo by Ann Mohs.

By the end of the excavation, most of the units were down to sterile silt or glacial till. In a few units the number and complexity of features made it more advisable to concentrate energies on profiling visible post molds, and otherwise maximizing the information from exposed features, rather than taking the entire unit down to sterile. Matrix samples were obtained from features and layers for flotation. Numerous carbon samples were also collected throughout the excavation from features and layers, so it should be possible to date the structure with some confidence. While analysis continues, given the similarity of the cultural matrix and the artifact assemblage, the architectural remains appear to be contemporaneous with the structure excavated in 1991. The pits themselves were not back filled, but protected by removable covers, so that interpretive centre staff can use them as a visual aid in their interpretation of the archaeology of the site, during the summer and fall.

For the students, the final week of the field school was divided between cataloguing their artifacts, returning to the site to profile the walls and learning how to enter and manipulate data in a computer.

On June 21st, we were all honoured to be invited to the official unveiling of the plaque that marks *Xá:ytem* as a National Historic Site. A field trip to the Scowlitz site, home of the Simon Fraser University field school this year, and a relaxing afternoon at the home of Brenda Crabtree, *Xá:ytem* Education Coordinator, allowed us a welcome chance to socialize with the very supportive staff of the interpretive centre.

Xá:ytem continues to offer many research opportunities. To further our understanding of the prehistoric use and occupation at the site we need to examine the nature and extent of site use prior to 5,000 BP, and to determine whether additional dwellings exist. As well, it would be valuable to locate an intact portion of the site in order to follow the occupational sequence forward in time. The discovery of additional architectural features poses more research questions. Undoubtedly, the recognition *Xá:ytem* has received is well founded and this site will continue to add to our understanding of the cultural development of the peoples of the Fraser Valley in the future.

References:

Mason, Andrew. "The Hatzic Rock Site: A Charles Culture Settlement." MA thesis, Department of Anthropology and Sociology, University of British Columbia, 1994.

Jean Young is an MA student at UBC, concentrating on the archaeology of coastal BC and the Fraser Valley. Her areas of interest include the development of social inequality, regional patterns of social organization, and public archaeology.

David Pokotylo is an Associate Professor of Archaeology in the Department of Anthropology and Sociology at UBC. His areas of interest and expertise include prehistoric stone tool technology, the archaeology of hunter-gatherers, and archaeological method and theory. He has carried out field research in many areas of western North America, including the subartic, interior plateau, and plains.

1997 University of Victoria Archaeological Field School

by Terry Clark

After a rain soaked field season, I for one was happy to return to the warm dry confines of the University of Victoria Archaeology Lab. Not that the 1997 field season was without satisfaction, we often thought of our fellow students from other field schools wallowing in muck and mud in the boonies. We, on the other hand, could walk to Subway for lunch and more importantly the Four Mile Pub to ease the pain of a day's digging.

The six week University of Victoria archaeological field school was spent at Kosapsom Park (DcRu 4) on the Gorge in Saanich, BC. The field school was comprised of two courses Anthropology 343 and Anthropology 344. Quentin Mackie and Becky Wigen shared the instructional duties while Andrew Hickok and myself rounded out the field school staff.

Each morning a lecture on a topic of local archaeological interest was presented on site, in the historic Craigflower Schoolhouse. The one room school, built in 1853, provided a unique atmosphere to learning.

Although archaeology in an urban setting has some distinct advantages it also means that the excavation is open to the public. As a popular recreation spot, we were frequently greeted by the sight of canoers and kayakers trying to make the best of a rainy summer. On a given day dozens of passers-by and a couple of school tours would drop by and ask questions. John Adams and the BC Heritage Trust organized school tours of the historic schoolhouse and archaeological site. This gave an opportunity for school age children to witness a real archaeological dig in progress and ask questions of archaeologists. The students fielded questions valiantly and spent a good portion of their day talking with the public. At times however, I am sure the students felt like they were on display.

Prior to the 1997 excavation UVic dug previously in 1994 and 1995 at Kosapsom. Harlan Smith was the first archaeologist to excavate part of the site over 90 years ago in 1905. Wilson Duff also conducted a short salvage dig in 1960.

Once again, as in previous field school years, a number of ASBC volunteers dug on evenings and weekends in their own pits. Also, like previous years the new season brought as many new questions as it did answers. However there are a few tentative conclusions we can draw. First, there is an historic artifactual component related to the Craigflower Schoolhouse. This assemblage is characterized by nails, glass and slate pencils. There were also a number of marbles, jacks and buttons found. The historic component provided many of the over 3,600 artifacts found to date.

Second, the prehistoric occupations of Kosapsom relate to the Gulf of Georgia and Locarno Beach culture types. These show a horizontal separation with the Gulf of Georgia deposits lying in the southern half of the site. Locarno Beach deposits are situated to the north and also seem to underlie the Gulf of Georgia material in the south. These findings are complicated by bridge construction and other historic disturbances.

The Gulf of Georgia assemblage is defined by the proportion of bone to stone artifacts and the presence of more diagnostic bone tools. Within this area of the site, ten excavation units are situated near and within a possible house depression. After three seasons of digging, it now seems likely that we have a Gulf of Georgia house platform. This conclusion is based upon a series of compact ash lenses, a number of post molds and a prepared hearth feature. Underlying the possible house floor are pit features that as of yet have no explanation. The artifacts from these "pits" more closely resemble the Locarno Beach deposits at the north end of the site.

Locarno Beach culture type is represented at Kosapsom by microblades, pièces esquillées, faceted ground slate points and a high proportion of stone to bone implements.

All site material was wet screened with ¼" screens. Further, pits opened in 1994 continued to be screened at 1/8" and bagged for more intense laboratory screening. Column samples, either 20 x 20 cm or 30 x 30 cm were taken for each 5 cm level. The screening method for 1994 pits, whereby all material to 1/8" is wet screened and bagged for lab screening, means that literally tons of site material waits for analysis. The mountain of field material is stockpiled at UVic. Future UVic students will have years of lab screening ahead of them.

The faunal analysis of site material is being conducted by Kathlyn Stewart of the National Museum of Nature in Ottawa. Her findings (Figures 1 and 2) appear to mirror the differences between artifact assemblages. This lends support to our north-south interpretation. Due to the comprehensive faunal analysis, Kosapsom will be an important site in understanding Locarno Beach subsistence.

Carbon dating including four carbon-14 dates on charcoal samples and nine accelerator dates on charcoal and burned shell. The C^{14} dates show a rough correspondence with our Locarno Beach and Gulf of Georgia interpretation, although one date is problematic. The accelerator dates which should clear up this confusion will be available within weeks.

My MA thesis research was also a part of this season's field work. A surface map of the site was created using an EDM. Several students and I spent days trying to figure out the computer controlled laser device. After a few false starts, we were underway. The contour map will be used in comparison to reconstructed stratigraphy extrapolated from core samples. A complex device of PVC pipe, wood and rope will be used to obtain three inch percussion cores. The coring regime was slow to develop and will continue throughout the winter with student volunteer's help. I plan to enlist a number of this year's field school students as labour. The goal of this coring project is to create a three dimensional site stratigraphy model that will aid in a discussion of natural and cultural site formation processes. It is hoped that the coring device may also have CRM applications.

In April of this year, John Adams of the Heritage Properties Branch and Andy and Maryann Thomas of the Esquimalt Nation, hosted a burning ceremony near the site. In this ceremony the former residents of Kosapsom were fed and clothed. The UVic students that participated found the experience very moving.

During the 1997 field season human skeletal material was discovered at Kosapsom. Maryann Thomas of the Esquimalt Nation and Eva George of the Songhees Nation conducted a reburial ceremony on site. It was a very emotional time for the students, and they were helped through it by Maryann and Eva.

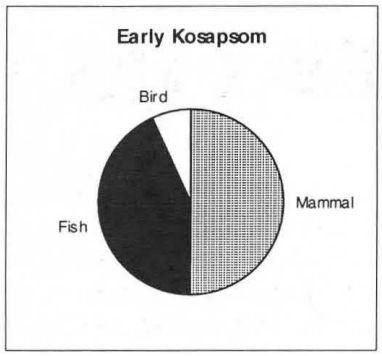
The future of the UVic field school at Kosapsom holds further research particularly into site formation processes via core sampling and an investigation of enigmatic features in the southern area of the site.

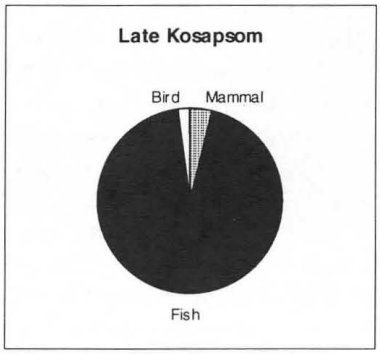
References

Stewart, Kathlyn. "Fauna From the Kosapsom Site, Vancouver Island, BC". Unpublished manuscript. n.d.

Terry Clark is an MA student in Anthropology at the University of Victoria. He has been continually involved with the Kosapsom site since first taking the field school in 1994. His MA thesis revolves around reconstructing site stratigraphy via percussion core sampling at Kosapsom.

Faunal Analysis at Kosapsom Park (DcRu 4)





Figures 1 and 2: Early and Late faunal assemblages at Kosapsom (DcRu 4). Note that earlier subsistence is broadly based with a large mammal component. Later subsistence shows the ethnographic pattern of reliance on fish resources. Salmon is generally underrepresented at Kosapsom, with herring and anchovy the dominant fish types present. Source: Stewart (n.d.)

Acknowledgments

The students and staff of the University of Victoria archaeological field school would like to thank Maryann Thomas, Eva George and Norm Pearson for their help and understanding. Daryl Fedje and Ian Sumpter of Heritage Canada supplied tools and expertise for the coring program. They also provided our accelerator dates. John Adams who administrates the property was consistently helpful. The students would like to thank Quentin Mackie and Becky Wigen for their excellent instruction. Quentin Mackie was instrumental in helping me write this article, thanks.

FIELD NOTES

Dionisio Point Household Archaeology Project, 1997

Colin Grier (Doctoral student, Arizona State University) writes that from June through August, 1997, he directed excavations at the Marpole-age village site of Dionisio Point (DgRv 3), on Galiano Island. Student and professional archaeologists from UBC, SFU, Malaspina College, McGill University, and Arcas Consulting Archeologists volunteered their assistance, bringing a diversity of archaeological experiences to this project. In general, the crew ranged in size from six to nine individuals throughout the season.

The 1997 field season was a pilot project designed to determine the nature of the information that could be recovered from the five house depressions visible at the site. These data will guide larger-scale excavations scheduled for 1998. The principal research objective for this multi-year project is to reconstruct the size, organization, and structure of the households that once occupied the large plank houses that formed this village. Excavations in 1997 resulted in the identification of housefloor occupation layers, large central hearths, and post-moulds attributed to the house architecture. Artifacts recovered included a variety of lithic flakes and formed tools, an incised stone bowl, and an abundance of slate beads.

Currently, applications are being made to obtain funding for work at the Dionisio Point site in 1998. The 1997 research was supported by the Penelakut Tribe, and funding was provided through grants from the Graduate Research Support Program and the Department of Anthropology at Arizona State University, and the BC Heritage Trust Community Heritage Development Program. Excavation equipment and field gear was generously provided by UBC.

WESTERN WASHINGTON UNIVERSITY FIELD SCHOOL

by Kelly Bush

During the summer of 1997 I helped teach the Western Washington University Archaeology Field School under Dr. Sarah Campbell. This field school is a six week intensive program with two weeks in class and four weeks in the field. The goal was for students to be exposed to the range of field methods used in archaeology today, and to gain some proficiency in the skills that most entry level archaeology jobs require. We tried to incorporate an appreciation for some of the fundamental requirements of an archaeologist such as: flexibility, team work, patience, problem solving and common sense.

In class we used the extensive comparative collection at WWU to give students examples of historic and prehistoric artifacts from this region. The focus was not on memorizing culture sequences but on learning which artifact attributes to describe and draw and how to use those details to extract the information you want from the references available. We spent time identifying shells, bones, lithics, cans, ceramics, and features common to site types we might encounter in the forests of the Pacific Northwest. A few students discovered a natural aptitude for flint-knapping when a local knapper led a demonstration and practice session.

The students were told on day one that this class would expand their definition of walkable terrain. Day two they orienteered up, down and across steep, heavily forested slopes in groups looking for pink survey ribbon. Day seven involved hiking up a steep forested ravine looking for old log chutes using only an enlarged photocopy of a topographic map.

Everyone worked hard to understand what landforms indicated on a topographic map look like in the field. We also explored what are some of the distinctions between natural and cultural landforms. Students were expected to be comfortable with compass, map, and translating their own paces into meters. Working in pairs they drew a compass and pace sketch map of one of the many outdoor sculptures on campus. Other map skills we practiced in the classroom included: UTM coordinates, township and range, latitude and longitude, elevations, understanding scale as it relates to linear distance and contour interval. We also practiced writing site access descriptions.

At the end of the first two weeks people were looking forward to the field work. We packed up our gear, food and wits, and were dropped off on Sucia Island by the WWU marine research vessel. Sucia is a small island near the Canadian Border that usually enjoys a somewhat balmy climate due to its location in the rain shadow of the Olympics and Vancouver Island. Balmy isn't exactly how the week went. Rainy is how the week started. But like the weather, the group recovered and we managed to examine lots of shell middens and so began several new survey projects.

Sucia Island has been surveyed numerous times through the years and these site forms are on file with the State Historic Preservation Office (SHPO) in Olympia. There are plenty of prehistoric shell middens and historic homesteads to uncover on Sucia Island. It is a perfect learning island as the campground is deluxe and because it is a small island, one can never get too lost.

The ever changing shoreline exposes the shell middens making examination exciting. Each student filled out a site form from beginning to end for a site of their choice, historic or prehistoric. For some of the sites that had been recorded in the forties, and rerecorded in the sixties, or seventies, just determining which midden or feature belonged with which site designation was a challenge. Not only were we making a real contribution to the management of these sites by updating the forms to reflect their current condition, but we also learned how perspectives change through time and from one person to the next.

The teamwork of this field school group was evident right from the beginning. People shared clothes, gear, chores and ideas. We returned home at week's end on the research vessel wiser and none the worse for wear. And yes their definition of walkable terrain had been expanded.

Our next project was two-fold. Part of the time would be spent mapping the remains of an historic mining town at the base of Shawatum Mountain and the other part would be spent excavating 1 x 1m units at DgRg 4, a mid elevation site in the Skagit River Valley south of Hope. The Canadian Skagit has had little archaeological investigation to date, and this was a chance to gather some exciting information to add to the large data base of prehistoric land use from south of the international boundary.

Mapping the historic mining town of Steamboat City had been on the mind of Dr. Campbell as there appeared to be enough surface debris and foundations to establish the location and function of the buildings. Also, these remains are right on the roadside of the Skagit-Hope Road and very likely the tourist impact on the remains of this 1909 town is high. We began with a systematic survey on 5m transects to flag artifacts and features. Then, in groups we began mapping, for comparison, both 10m blocks and 50m blocks. While half the group worked at Steamboat City the other half began excavating at DgRg 4.

The students had seen the slides and had heard (at length) the tales of the survey project that recorded DgRg 4. Even so they seemed somewhat surprised when we loaded up transits, tripods, screens, buckets, shovels, gear boxes and started walking into the dense forest and up the slope for the first trip to DgRg 4. I saw that familiar look, a glimmer of realization, on some of their faces when we arrived at the site, red-faced and sweating. This is hard work.

DgRg 4 was recorded in November of 1995 as I collected data for my Masters

Archaelogical field school students from Western Washington University measuring depth below datum at Unit 2, from site DgRg 4 in the Skagit River Valley. Photo courtesy of Kelly Bush.

Thesis. I had sunk 17 shovel tests into the site area, primarily to determine the extent of the site and had carried eight litres of matrix samples back to the lab for further study. It is located on a landform that may be a kame terrace or para-glacial alluvial fan. The slope above and below the site is a moderate to steep slope 35 to 45 degrees. There is a drainage gully through the northern part of the site area and a wide ravine with a permanent creek in the southern portion of the site. The greatest density of artifacts has come from the dry, flat, south-facing terrace between the gully and the ravine. Lithic artifacts were collected from a variety of material types including: Hozameen chert, metasediment, basalt, quartz, andesite, obsidian, two types of vitrephyre and two other locally occurring cherts.

As anyone who was out there this past summer knows, the bugs were bloodthirsty, and the Skagit was no exception. Bug hats and mosquito coils could have had their own frequency distribution graphs on this job. Excavation proceeded regardless and we began by mapping in 6 1 x 1m units. From the shovel testing two years ago, we knew that the glacial till would appear at 45 - 48 cm dbs. With this in mind excavation began at 5 cm levels following natural contours. When it became clear that "flat bottomed" levels might be easier for "first timers", we changed our tactic. This change seemed like a struggle at first, but it was a great opportunity to see how changes to the research design are made in the field.

The students were exposed to all the dynamics of excavation; specifically we demonstrated and expected proficiency in the balance of careful but expedient troweling, and thorough recording. Due in a large part to scheduling, students were afforded opportunity to excavate at varying speeds to practice this balance. Most students were able to feel the thrill of finding artifacts *in situ.* Screening, record taking, photography, filming with video, mapping, transit work, trail construction, and of course back filling were all practiced.

Excavation groups of three to a unit allowed each person to excavate, screen, record and take pictures, as we tried to keep a photo log of each level as well as unique finds and profiles. Visual images were recorded extensively in this excavation. A WWU graduate student in visual anthropology joined us and took still pictures and video of the excavation process.

As with all excavations, some units were easier to excavate while some had nothing but roots and flakes. True to form at 11:00 am on the morning of our last scheduled day, two features appeared in units 2 and 6. Unit 2 had a thin hearth-like feature that afforded everyone the opportunity to see that hearths are rarely a circle of cobbles full of charcoal and T bones. The feature in unit 6 was very different. We encountered a dark matrix near 30 cm dbs in the southwest corner. While collecting matrix samples from this dark matrix we observed medium and large sized primary and secondary flakes, and speculated that we may have found a heat-treatment feature. We continued to excavate this matrix separately and decided to return the following week and excavate one more unit.

The last week of the field school was designated for projects. In groups of four, the students were to write a grant proposal for a project of their choice. Included in this proposal must be an introduction, literature review, methods, relevant maps, budget and a schedule. I returned to the Skagit for one last visit with a core group of enthusiastic volunteers. They would have to complete their project while in the field. As I write this article from a three week stint near beautiful Burns Lake, I know the challenge of writing while engaged in field work.

Kelly Bush has worked for seven years as a consulting archaeologist primarily on the Fraser River Plateau. She received her BA from SFU and her MA from Western Washington University. Her research interests include lithic technology and prehistoric settlement and subsistence practices, with a focus on the data collection, reporting strategies, and tactics of archaeologists.

DIGGING IT AT THE McLEAN MILL

1997 NORTH ISLAND COLLEGE (PORT ALBERNI CAMPUS) ARCHAEOLOGICAL FIELD SCHOOL

by Robbin Chatan

Between May 5 and June 13, 1997, nine college students participated in a second-year archaeological field school offered by North Island College, Port Alberni campus. The course, ANTH 290, was instructed by Mr. David Ormandy (MA Anthropology, Toronto), with myself supervising the field work at the McLean Mill National Historic Site (1123T) in Port Alberni.

The site is located about 15km northwest of the city centre of Port Alberni, on Kitsucksis Creek. The sawmill and logging divisions of the R.B. McLean Lumber Company operated in this location between 1926 and 1965, and it is an example of a small family-owned, or "gypo", mill. This site contains the last operating steam-powered sawmill with circular saws, a technology that dates to the second half of the nineteenth century. The field school was part of the overall cultural resource management (CRM) for the three-year capital development plan of the site.

Of the nine students, four were from the Port Alberni area, while five came from outside the district, principally from Victoria, Nanaimo, Greater Vancouver, and Castlegar. They were taught archaeological method and theory, including survey, mapping, excavation, profiling, photography, and cataloguing. They also completed research essays on various aspects of the millsite and project, including such topics as plank roads, the steam power system and associated artifacts, rail and automotive transportation, ethnicity, gender, domestic and industrial dump sites, rural education in the Alberni Valley, and a study on a particular residential structure. One other important facet of this project was a public archaeology component, which consisted of an open house for the community that was organized by the students.

The archaeological fieldwork and methodology employed in this project were largely dictated by the CRM requirements of the development. Most of the work consisted of archaeological survey along proposed utility/service line right-of-ways, areas of generalized excavation (i.e., septic fields, etc.), and other known impact locations. Surveying consisted of systematic shovel testing along hipchain or chain and compass transects. Excavation units were used to retrieve subsurface data in areas assessed as possessing high archaeological potential, or in locations where the development will impact cultural stratigraphic information (i.e., the old Plank Road). The archaeological procedures followed the Parks Canada Provenience System. In total, thirty-one operations, or areas of investigation, were conducted in this project, and 3,916 artifacts recovered. The entire collected assemblage dates principally to the 49 year period of mill operation. No prehistoric artifacts or deposits were encountered. The project covered all the main designated heritage zones of the site - industrial (sawmilling and logging), transportation and markets, and domestic (social and labour).

The archaeological investigations of the Sawmilling Zone consisted of work in and around the Mill Building, a collapsed Sawdust Bin, the Exit Waste Conveyor System, the Power Boiler, Lubricant Oil Shed, and the Millwright's Shed. Subsurface investigations in this zone recovered numerous architectural (nails, bolts, and window pane glass), industrial (sawmilling, tools), personal (i.e., clothing, accessories), and transportation (locomotive and automotive) artifacts. Some of the interesting items retrieved include the haul-back pulley from the mill's collapsed Log Haul, numerous removable circular saw blades, metal files, a pocket watch, a leather work glove, and an old "Miner" neoprene rain slicker. Other buried features encountered included four different sections of metal pipes; two seem to be water intake pipes from the Mill Pond to the Mill, and one is the 2" pipe that supplied steam from the Boiler House to a steam engine in the Millwright's Shed. The function of the fourth, a galvinized pipe, still remains enigmatic.

Investigations conducted within the Logging Zone consisted of subsurface testing near the Machine Shop, Parts Shed, Main Garage, A-Frame, and the Logging Road. Most of the material recovered from the Machine Shop and Parts Shed falls into the industrial and transportation categories, and is associated with the operation of the logging division and the activities of the mill's mechanic. Included in this assemblage is a 1952 BC commercial license plate from a logging truck. The now-collapsed A-Frame was mapped and its structural elements inventoried prior to its eventual removal and replacement. This structure was used to unload logs off trains and trucks into the Mill Pond.

The millsite contained a number of residences for members of the McLean family, its married and single employees, the bookkeeper, the cook, and, between 1929 and 1938, a teacherage for the teacher of Bainbridge School. The existing residential structures on the site include a cook-

1997 North Island College archaeological field school crew, McLean Mill National Historic Site (1123T), Port Alberni. Photo courtesy of the McLean Mill National Historic Site.

house, bunkhouse, the R.B. McLean House, the Bookkeeper Office and House, The Millworker's House, The Arnold McLean House and Garage, the Teacherage, and several ancillary structures (i.e., sheds) and features (sceptic tanks and latrines). In three operations near known residential structures subsurface investigations recovered buried cultural deposits consisting of high frequencies of fragmented ceramic and glass tablewares, glass jars and bottles, tin cans, personal articles, and domestic items. Included in these assemblages were pieces of heated and melted glass. These deposits were also associated with large amount of burnt wood and charcoal lensing. This evidence is suggestive of household incinerator barrels made from 45 gallon drums that were commonly used at this site until very recently. Behind the Bookkeeper Office and Millworker's House students recovered various domestic, personal, and automotive items, including an almost complete CCM bicycle, dating to the late 1940s or 1950s, from a diffuse surface household dump site.

To the south, behind the existing millsite residences lies a forested area of the Natural Zone which contains the remains of other features and structures, notably the Plank Road, three collapsed buildings, and a number of garbage dump sites of varying sizes and composition. In fact, this study area seems to be one giant dump site with numerous isolated and concentrated artifacts and debris scattered across the landscape. The field school mapped the Plank Road and associated surface artifacts and dump sites on either side along its extent within the site's property. A systematic survey for surface and buried materials and deposits was conducted, including the non-invasive inventory of the artifactual contents of several dump locations. In areas of proposed developmental impact the significant surface artifacts were collected, and excavations were conducted on the Plank Road and within a small dump site (G13). Most of the items recovered along this scenic roadway consisted of domestic, personal, and automotive artifacts associated with the millsite households. However, several large industrial parts, including a dump of five metal conveyor rollers and an original wooden belt drive roller from the mill, were located in this area.

Previous archaeological investigations of the site recorded the presence of three collapsed structures on the Plank Road. The location of one structure, Structure 40, was revisited by the field school. This consisted of the removal of shrub vegetation and the needle/leaf mat overburden, the mapping and identification of existent structural elements where possible, an inventory of the visible artifacts, and a selective collection of objects. This building is a small cedar structure measuring about 5 x 5m, situated on the west side of the Plank Road, and was the topic of one student's research paper. The existing structural elements that were identified include foundation stringers, floor boards, one or two collapsed walls, and pieces of corrugated metal roofing. The surface artifacts recorded and collected consist of cut tire halves, several aluminium plates, plastic dairy/margarine containers, a round-nosed shovel head, and plastic insulators from an electrical fence.

This assemblage is suggestive of small livestock, either for poultry and/or small animals, and in fact, the oral history of the building confirms this inference. One of the site caretakers had used the building for chickens and pigs to augment household production between 1965 and 1980, thus explaining the assemblage. There still remained, however, the question as to the original purpose of this building because of the presence of certain structural elements. Again, oral history aided to identify the original function of this structure. The individual, who used the building for livestock, remembered its structural traits prior to its conversion to a chicken coup and piggery. The original building had raised floor boards, a lean-to porch with a small door, two six-pane windows, and cedar shake roofing which is very indicative of a residence rather than an ancillary structure. Other informants remember that there was a residence of a Mrs. Burglund

in this area, who worked in the cookhouse in the 1930s. It is highly likely that Structure 40 was originally this residence.

During this six week period the students encountered the heritage remains, both structural and artifactual, of twentieth century historical and industrial archaeology. The data recovered during this project has shed light on several aspects of millsite development associated with the operations of the R.B. McLean Lumber Co. and the activities of the millcamp residents. However, despite the extensive investigations of this project numerous questions still need to be addressed by future archaeological research at this site.

ASBC member Robbin Chatan obtained his MA in Archaeology from the University of Calgary in 1992. He has an interest in historical/industrial archaeology of the North American West, and has worked on historical period sites in both Alberta and British Columbia, including the McLean Mill National Historic Site in Port Alberni.

Acknowledgements

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LECTURES

The Underwater Archaeological Society of British Columbia

The Underwater Archaeological Society of British Columbia (UASBC) is a 220 member group of volunteer avocational and professional underwater archaeologists. Their mandate is to conserve, preserve, and protect the maritime heritage lying beneath BC's coastal and inland waters. They meet on the last Wednesday of each month, at 7:30 pm at the Vancouver Maritime Museum, 1905 Ogden Avenue, Vancouver. Admission is free, and non-members are welcome.

November 26, 1997 - Steamship Engines - Peter Helland traces the history of steamship engines on the British Columbian coast, starting with the Hudson's Bay Company steamship Beaver wrecked in 1888, to the wreck of the SS Themis in 1906.

January 28, 1998 - South Atlantic Graveyard - For centuries ships rounding Cape Horn often became damaged beyond repair. Eric Lawson gives a uniquely Canadian perspective on the many ships wrecked or abandoned in and around the Falkland Islands.

February 25, 1998 - Lost and Found Wreck - Using lots of examples, BC's Receiver of Wreck Yvette Myers has an upbeat way of reviewing current federal shipwreck legislation, and how it affects the sport diving community and the salvage industry.

March 25, 1998 - Diver Training - Rob Field outlines the progress of the UASBC's underwater archaeological diver training program, based on the internationally acclaimed courses developed by the UK's Nautical Archaeology Society.

April 29, 1998 - Wrecks of Powell River - WWII surplus vessels were sunk to create a breakwater for the Powell River pulp and paper mill. Jim Willoughby describes these "incredible hulks", as well as the Capilano, the Gulf Stream, and other local wrecks.

May 27, 1998 - Exploring SS Cowichan - A collaborative effort by BC's maritime community located the Cowichan in 420 fsw near Sechelt. Bill Nadeau and Tom Beasley summarize the search, discovery, and exploration of BC's deepest located shipwreck.

June 24, 1998 - Shipwreck Expeditions - Jacques Marc, the UASBC Explorations Director reviews the Society's expeditions during the past year, including some remarkable new finds, and details the status of the regional survey of North East Vancouver Island.

A FOND FAREWELL TO ISABEL BYRNES

by Fred Braches

I want to pay my respects to a friend who was without malice, always willing to smile and see the funny side of humankind. People and nature fascinated her. Sunshine, flowers, squirrels, fishes, frogs, turtles, and friends surrounded her through many happy years. She was full of energy and dedicated to the world around her. She was much loved by all who knew her, including hundreds of school children she taught for some thirty years at Whonnock's school. She is sadly missed by her husband Brian and all of us who knew her.

Isabel and Brian, her partner for more than half a century, gained a substantial knowledge of the archaeology of British Columbia and in particular of the lower Fraser. They joined the ASBC at a very early date. Many of the Societies older members will remember Isabel from our meetings, and as a tireless participant at the "digs." With Brian at her side she worked an unimaginable number of days as a volunteer in the field, wherever the ASBC participated and at other university and museums' excavations. The "Byrneses" generously shared their experience and knowledge and, with care and patience, guided many a greenhorn to become a useful volunteer, at least able to recognise fire-cracked rock.

Isabel Margaret Byrnes was an offspring of well-known settlers of the Maple Ridge area who came west when the first trains crossed the mountains into British Columbia. On her mother's side was the Rolley family of Whonnock and on her father's side the Ferguson family of Port Haney. As a child Isabel collected "arrow-heads" along the shores of Kanaka Creek, where the Ferguson family lived, and that early interest honed her keen eye. She could spot an artifact anywhere.

Some time early in the 1940's Isabel's interest in the remnants of the First Nation's past was rekindled with a chance find of a projectile point at Whonnock Creek. When the war-effort no longer absorbed their weekends, Isabel and Brian started a systematic survey which extended over many decades. In winter, when the water levels are at their lowest and the professional archaeologist are working inside, Brian and Isabel traced the shorelines, located sites and salvaged exposed artifacts. They covered the banks of the Fraser, Stave, Pitt, Harrison and

Photo by Helmi Braches.

other waters, particularly on the north shore of the Fraser, and drew a set of maps showing the areas which they surveyed over the years, marking probable sites of human occupation.

From an earlier phase collecting "curiosities" they quickly evolved to become responsible avocational archaeologists, guided by the aims and ethics of the Society. Isabel dedicated much time carefully describing the artifacts and the location of their finds Michael Cranny and Don Bunyan reported: "The precise, detailed and complete records of their activities as amateur archaeologists kept by the Byrneses for many years would be of great value to anyone studying the archaeology of the Valley." [1]

Many of the locations Isabel and Brain recorded are now lost to stream and tide[2] and other sites have been destroyed by development or looted by pot hunters. The artifacts Isabel and Brian salvaged are often the only ones remaining which can be traced back to these sites and some of the sites would not even have been known without the records made by the Byrneses.

Isabel and Brian learned about collections of artifacts in private hands and became aware of the lack of and potential loss of information related to these items. They encouraged neighbours and friends to have their artifacts and provenance recorded. These early efforts lead to the ambitious "Private Collections" project of the ASBC. In particular the members of the Fraser Valley Chapter of the ASBC, of which Isabel and Brian were founding members, distinguished themselves in the recording of numerous collections in the Valley as described in *The Midden* 28/3.

As few others in the Society, today and yesterday, Isabel and Brian recognised and demonstrated the importance of enthusiastic, dedicated and knowledgeable amateurs in the field of BC archaeology. Actions rather than words marked Isabel's path. She never wanted to stand in the limelight and wished to "slip away quietly", but that should not mean unnoticed. The members of the ASBC remember her fondly and want to say farewell to a friend who, in her own quiet way, made a difference to many and who gave so much of herself to the ASBC and to BC archaeology.

[1] Michael W. Cranny and Donald E. Bunyan. *Report on the Archaeological Survey of the North Side of the Fraser River.* Archaeological Sites Advisory Board. 1975.

[2] Robert Kidd reported on the Byrnes Site (DhRp14) in the summer of 1963 that it was "rapidly eroding during seasonal stages of high water and is in imminent danger of washout from the Fraser and a nearby creek". Robert S. Kidd, "Archaeological survey in the Lower Fraser River Valley." *National Museums of Canada, Bulletin 224, Contributions to Anthropology VI: Archaeology and Physical Anthropology.* 1963.

BOOK REVIEWS

EVERYTHING YOU WANTED TO KNOW ABOUT GROUND STONE CELTS

The Taxonomy of Ground Stone Woodworking Tools

by QUENTIN MACKIE

BAR International Series 613. Tempus Reparatvm, Oxford, 1995. *vii + 115 pp., illus., apps. Price: ISBN 0-86054-794-9, (Pb) £26.00 UK (ca. $52.00 CDN).*

Most readers of this journal recognize that the world of stone tool studies in archaeology is dominated by chipped stone. How refreshing, then, that BAR published Mackie's intensive treatment of ground stone tools, and of British Columbian artifacts as well. There is something in here for both professional and lay archaeologists. If you want to skip the serious, but very well presented, multivariate statistic parts, you will still learn lots of interesting things about celts (stone chisels and adzes).

We need to keep in mind that this book was not written for a general audience. The volume is a re-worked version of Mackie's MA thesis from the University of Victoria, which he completed in 1992. It was designed to be a study in typology — a modern, exhaustive, statistical analysis of the forms in which celts are found. This would provide some standardized means of using the information that celts carry in other archaeological studies. As we will see, things did not go as planned and Mackie had to alter his perspective.

Mackie opens his study with a kitchen knife analogy. Right away I knew, from this obviously relevant comparison of celts with the way knives go through their lifecycle, often being called into duty as screwdrivers, that this was a study in logic. Thinking about knives in a serious manner brings to mind many issues dealing with classification. As Mackie points out, most classifications are a matter of convenience, a lesser, necessary task, while we are trying to do something more important with the artifacts at hand. Applied classifications he concludes, at least good ones (and by this I believe he means good explicitly derived ones), are rare. Ground celt classifications on the West Coast have been very unsystematic. Most are a matter of choosing a few obvious stylistic and functional attributes because celts simply seem to group in those ways.

The introductory section of the book continues into Chapter 2, where the archaeological and ethnographic backgrounds are provided, including some reference to wood working technology, and a general culture history outline for the Coast Salish area. Also provided here is a brief introduction to the function of celts and a discussion of previous classifications that have been applied to celts on the Northwest Coast. In here I found an indication of Mackie's critical and sometimes cryptic style, no doubt a symptom of "graduate student-itis": a particular researcher's celt typology is found to be "limited in finesse", but "relatively unambiguous, replicable, ...explicit, and ... directed towards a specific research question."

Given the overall purpose of the study, the true background is provided in Chapter 3, an in-depth discussion of archaeological systematics as applied to typological and classificatory issues.

Mackie has an easy style that overrides the obligatory thesis requirements to review all literature relevant to the topic at hand. He offers a clear discussion of the Spaulding-Ford debate regarding the discovery of artifact types versus their imposition by the archaeologist, concluding that both approaches are valid. Also relevant and useful here is his discussion of Romesburg's distinctions between general purpose classifications (for asking questions), and special purpose ones (for answering them). Mackie then reviews classification literature with respect to issues of variable selection, methods of defining artifact types, and issues of inferring meaning to classifications. This is a good discussion that is worth the read as an academic refresher. It is a debate that has raged for some time in the chipped stone world, whether on the topic of stone tool functions or debitage indicators of reduction processes — clarity is important so that the debates can be informed and we can waste less time simply coming to common terms.

The meat of the matter starts in Chapter 4, where a descriptive typology is first constructed to reflect the variability of all the shapes contained in the total sample of 1,496 celts. Making his methods explicit, logical and replicable, Mackie used the attributes of length, width, thickness, and weight to obtain a series of ratios (to reflect shapes) that are then divided along their medians (one-half of the sample is to the lesser side of the median, the other to the greater side). He recorded a total of 13 metric fields, seven more that relate solely to calculating angles of the bevel end, and 21 categorical variables. These are all defined in an appendix and three-character acronyms are used in the text to refer to each. When I saw his intent to use the median to split the principal metrics, I wished Mackie had included some frequency distribution graphs. The median split is certainly defensible for a general-purpose classification, however I have some concerns. The reason for this is as follows, and Mackie discusses it at greater length in the conclusions. Normal distributions of artifact metrics are rare. Often we encounter a few exceptionally large or small items that skew our sample statistics. If we create a length classification of 10 things, which range in length from 1 cm to 20 cm, and 8 are less than 1 cm in length while the other two are 10 cm and 20 cm in length, our median-based classification will divide the sample at somewhere less than 1 cm. If we want just two classes, we will have two states: one of artifacts less than 1 mm, another of those greater than 1 cm. What we have done is obscure the variability occurring in most of the sample. The millimetre-level differences may be the important ones, but we cannot discern those distinctions with this method. The median method he used, however, does have the advantage of being robust, since new celts can be compared readily to a large sample.

In any event, 17 descriptive classes

were derived. Each of these is described, including reference to the other recorded variables. This is laborious to read and its purpose is not clear, particularly when the study then looks at celt classification in other ways. The methodology is explicit, the statistics applied are valid, and we learn that the most common celts are thick, elongated and of medium size, or flat, stubby, and large. But why this was done, other than just to see what kinds of types could be made in this way, is not clear to me, especially when more complex methods of looking for types were going to be used in any event.

The next chapter is a lesson in archaeological method regarding cluster analysis. This one and the next will be the most difficult for non-quantitative readers to get through, but the concluding chapter presents the essentials in a sensible manner. In Chapter 5 Mackie attempts to make his methods replicable and defensible, laying out his reasoning for selection of variables to include, the type of cluster algorithm chosen (average), the type of similarity coefficient chosen (Gower's), how to treat missing values, and finally how to divide up the dendrogram. I found this to be a very valuable discussion, equal to Leroy Johnson's paper in Clarke's "Models in Archaeology" volume for its concise description of how to do a cluster analysis. This chapter is worth referring to students having difficulties working out the complexities of multivariate classification methods.

The actual cluster analysis takes place in Chapter 6. The purpose of the cluster analysis was to define an underlying structure of the sample. This was a large sample, one that taxed even a modern university computer system. Again, Mackie trys to define his methods, and by this time perhaps some of the more common sense "thinking out loud" is not required. We hardly need, for example, to be reminded to "do the best you can." Another part of the method that caused me concern was the removal of any attributes related to time, space, or archaeological context. This was done because the purpose was to find underlying morphological structure, however this an archaeological study. These attributes were not re-inserted later to check for variability in form along those other lines of interest. Perhaps this is just a bit of an over-zealous application of methodology for which typological studies are famous.

After removing artifacts from the analysis because of missing values, a total of 865 celts were included in the cluster analyses. These were described with 40 variables, 19 of which were quantitative. The cluster diagrams are not shown (but a sample is illustrated in the original MA thesis). Understandably, reproducing cluster diagrams of this size would have been a difficult task for the publisher, but some means of providing reduced versions of these would have greatly improved our understanding of the results.

The results are interesting — no matter what method was used, no clear clusters could be derived. Mackie then searches for a reason why no clear patterns are apparent. He tries altering his coefficient of similarity, discusses the advantages and pitfalls of attribute weighting, tries a complete linkage algorithm instead of the average one, and still gets no satisfaction. He concludes that, short of a truly exhaustive application of similar variations in analysis, no truly obvious clustering will result, and that therefore, the dataset has very little inherent structure. The attempt to form a general-purpose classification of ground stone celts failed.

Undeterred, Mackie then reduced the variables to eleven with obvious functional meaning. This was unsatisfactory as well: no internal homogeneity was noted for the derived clusters — the three qualitative variables (poll battering, bit shape, bevel symmetry) determined the cluster memberships. Three more attempts were then made at cluster analysis, resorting to using only the non-functional attributes, trying both complete and average clustering, and finally employing Euclidean distance rather than Gower's coefficient. However, this was not successful. Mackie then asks: "What could account for a lack of clear clustering in a functionally constrained, deliberately shaped artifact class?"

It is this question that leads the research into an examination of celt use-life history. This arises from the conclusion that some strong process must have acted on the typological structure of the artifact sample. Something, perhaps a cultural or taphonomic process, was forcing the items to have minimal typological variability. The study then turns from a highly quantitative approach to a more pragmatic one, a detailed examination of the potential alterations of celts during their use-life from manufacture, in use, through refurbishment, and final discard.

For those not accustomed to formal typological studies, this will be the most informative and enjoyable part of the book. These chapters are extensively illustrated to facilitate understanding of the discussions. Through three chapters (7,8,9), Mackie outlines the rationale for looking at use-life histories, discusses in detail the raw materials and manufacture of celts, and develops a behavioural model of celt use-reduction. He often uses non-Northwest Coast literature to fill in gaps, and provides a very informative section describing the amount of labour involved in actually making celts — some of them were the product of a person's lifetime, even passing into the next generation, still being consciously completed! Normally, though, celts from either sawn or flaked preforms were completed within a few days or a few weeks. Mackie examines here differences between obviously pecked, flaked or sawn celts, observing that those pecked are larger and more massive, while sawn ones are narrower, and flaked celts are broader.

The behavioural model is then evaluated with respect to several parameters: effects of resharpening on length; effects of longitudinal bisection (which occurs when celts become stubby); and other strategies of renewal such as end-flipping and transverse renewal. In addition, patterns of morphological variation due to geographic distance from nephrite source areas are apparent. These patterns are shown by clear graphs, for example, showing declining length to width ratios with distance from source. The study briefly examines processes of celt discard and suggests as well that patterns of patination may provide some clues about an artifact's use life. The conclusions of this well-written analysis are best simply repeated here:

...most ground stone celts were made of a technically ideal but uncommon, localized raw material; were laborious to manufacture; causing low standardization of preform; had a potentially long use-life during which they were unlikely to be lost; were likely to be used until there was little residual utility; such intense use probably

resulted in predictable change (gradual and episodic) in form over a use-life; they could be lost, broken, or discarded at any time, and the study collection contains celts at all stages of use. (p. 71)

The concluding chapter largely reviews the principal results of the preceding sections. Excellent points are made concerning the validity of the study given the large sample size and the large number of variables employed. Mackie states that the study could not have proceeded to examine variability across culture-historical bounds, mainly because the items were often not very well provenienced (private donations, poor archaeological records, etc.), but nonetheless, I wish he would have tried to do so with those well-documented pieces. The highly curated nature of celts, given the results of this study, should lead to productive future studies that examine different kinds of Northwest Coast sites in ways that compare occurrences of celts with artifacts that had shorter use-lives. Such studies can be very revealing of settlement strategies, particularly when independent seasonality data are at hand, as is often the case in Northwest Coast archaeology.

Overall, this is a first-rate contribution to lithic studies in a neglected area. The production of the volume is better than many previous BAR publications, typographic errors are few, and the illustrations are clear, although more graphs of attribute frequencies would have been useful. But it is not often that theses or dissertations lay out explicitly the tricky paths that are taken during a course of study — all the things that did not work are usually left out of the picture. For its concise methodological descriptions, clear discussion of multivariate manipulations, and for its contributions to our understanding of what ground stone celts are all about, this is a very worthwhile book to read.

Martin Magne

Martin Magne received his PhD in Anthropology from UBC in 1983. Between 1988 and 1992 he worked for the Archaeological Survey of Alberta, and since 1992 has served as Senior Archaeologist for Archaeological Services, Parks Canada (Western Region) in Calgary. Marty has a research interest in lithic analysis, including his dissertation on lithic technology of the Interior Plateau, and his current research on the microblade technology on Gwaii Hanaas.

BOOK REVIEWS
CONTINUED

THE RIGHT BOOK AT THE RIGHT TIME?

Early Human Occupation in British Columbia

edited by ROY L. CARLSON and LUKE DALLA BONA

UBC Press, Vancouver, 1996.
261 pp., illus., refs., index. Price: ISBN 0-7748-0536-6 (Hc) $65.00 CDN; ISBN 0-7748-0535-8 (Pb) $34.95 CDN.

Students of the earlier periods of Northwestern North American prehistory have been treated to a spectacular series of recent discoveries: Kennewick Man, the early faunal assemblages and human remains from Prince of Wales Island, dozens of pre-9,000 YBP sites from Gwaii Hanaas, a possible Plano point from Stave Lake near Vancouver, possible early material from high terraces at Tsinni Tsinni on the central coast, the Nenana sites and the Mesa site from Alaska, and so on. With increasing doubt being cast on the Ice Free Corridor as the initial route into the Americas, attention has re-focused on the alternative of coastal migration, and so interest in the early periods of Northwestern North America has never been higher, and will continue to grow. This appears to be the right book at the right time.

It contains 18 chapters, organized into **Fluted Point and Plano Traditions** (Fladmark and Driver on Charlie Lake Cave, Wilson on the Pink Mountain Palaeoindian sites); **The Intermontane Stemmed Point Tradition** (Fedje on early Banff-area sites, Choquette on the Upper Columbia and Kootenay valley region); **The Pebble Tool Tradition** (Haley on the Pasika Complex, Mitchell & Pokotylo on early components at Milliken, Carlson and Cannon on Namu and Namu Archaeofauna respectively, and Matson updating his thinking on the important Glenrose Cannery Site); **The Microblade Tradition** (Ackerman on the Northern Northwest Coast, Fedje *et al.* on early Gwaii Haanas sites, Magne on early micro-core morphology, Coupland on the Bornite phase at Kitselas Canyon, and Hutchings on Namu obsidian technology); and, **Transitional Cultures** (Stryd and Rousseau on the early Mid-Fraser, Wright on an enigmatic undated site at Coquitlam Reservoir, and McMillan on early Alberni Valley sites). These wide-ranging contributions are flanked by Carlson's introductory chapter and his chapter on later periods.

Space precludes commenting on all these contributions. The papers by Matson, Ackerman, Fedje *et al.*, and Magne have already made it onto my reading lists, and those by Fedje, Driver, Fladmark, and Mitchell and Pokotylo will likely also take their turn. All of these are valuable for concise recapitulation and clear illustration, while some (such as Fedje *et al.*, Magne, and Mitchell and Pokotylo) also present new or re-analyzed data not readily available elsewhere. In a similar vein, it is very welcome to see published accounts of some important "grey-literature" sites or regions: Wright gives a useful, cautious account of the Coquitlam Reservoir sites, in which he presciently names Stave Lake as worthy of further investigation for early sites, McMillan presents the intriguing microblade sites from the Alberni Valley on central Vancouver Island, and Choquette fills a need with his summary of the Upper Columbia and Kootenay rivers. Such papers fill important gaps and/or provide an entry into the grey literature. A different sort of gap in the literature is represented in major sites excavated some time ago but not yet fully reported, and in this respect it is welcome to have more published information on Namu (Carlson, Cannon), and Borden's

Fraser Canyon excavations (Mitchell and Pokotylo, Haley).

In the Canyon, Haley makes the case there is no early Pasika complex, at South Yale or elsewhere (i.e., there are no known pre-Old Cordilleran sites containing only cobble-tools). He defines 77 (!) types of cobble tools, a typology which, he notes, accounts for 100% of the assemblage (with that many types, it had better include all the artifacts). Does Haley truly believe there are 77 meaningful types of expedient cobble tools? Compare this analysis to Magne's contribution on micro-cores, which displays his characteristic ability to economize on variables and boil diversity down to its essentials. More puzzling, it is difficult to understand Haley's assertion (p. 59) that, with a range from "...2,630 [3,130 ± 500] to 6,030 [5,900 ± 130] years BP the dates span only 400 years, a remarkably short time..." It is hard to blame this on a simple typo (a dropped zero?) as the passage then become nonsensical, unless one accepts that four millennia constitute "a remarkably short time." I was also struck by Haley's comments that the presence of microblades, bifaces and *historic* artifacts mixed in with the Pasika material indicates that "the site assemblage is not without the more sophisticated artifacts and technologies (p. 54)," not least because the geological context of these deposits (aeolian versus fluvial) is a crucial point in the determination of their antiquity. The reader is tantalized by suggestions that the deposits are disturbed or otherwise not in primary context, yet this prospect is left unresolved, and, indeed, the presence of bifaces, microblades and historic artifacts is used as evidence that there is no "pure" unifacial Pasika complex.

Another chapter which caught my attention was Arnoud Stryd and Mike Rousseau's discussion of the Mid-Fraser, which focuses on projectile point style and percentages of raw material (and includes a valuable catalogue of radiocarbon estimates from this area). Stryd and Rousseau reach the tentative - yet rather breathtaking - conclusion that their Lehman Phase to Lochnore Phase transition represents an actual population replacement, "different ethnic groups of different linguistic affiliation" (p. 200). Dale Croes has suggested that, in the Hoko River case, archaeological regions defined by perishable artifacts are not coterminous with ones defined by lithics, and that the former are deemed to be more reliable indicators of "ethnicity" than the latter. As determination of ethnicity has potentially serious implications in land claims, and since the assignment of ethnicity to material remains is such a problem generally, archaeologists need to be cautious when interpreting their units of analysis in these terms. Similarly, Carlson's (p. 215-17) attempt to correlate the distribution of his five early traditions with five current ethnolinguistic groups in my opinion overstretches both the archaeological evidence and reasonable notions of the relationship between language and technology.

It is good to see such a range of government, consulting, and academic archaeologists publishing together, emphasizing the potential strengths of the variously funded and targeted archaeological research effort in the province. With such diverse contributors, this *should* be the right book at the right time - but it isn't, at least for those who might wish to put recent finds and research into a general context. Taken individually, many of the chapters are very good, and a few are indispensable. Taken collectively, the volume encapsulates a narrow and parochial culture history. Site after site, region after region, is presented, adding little to an integrated understanding of the early period. Apart from the idiosyncratic bookend chapters by Carlson, there is no consistent editorial attempt to understand cultural processes, cultural ecology, or even long-term history. Each site or region is presented as an island of information, with precious little connection to each other. It would be very beneficial to have overview chapters on, for example, palaeoenvironment ("B.C. at 10,000 YBP"), early maritime hunter-gatherers, mobility and colonization processes, predictive modeling for early period sites, and relevant aspects of post-glacial geoarchaeology. Above all, it would have been useful to include more perspectives from beyond the confines of British Columbia, which strikes me as an artificial region composed of a multitude of peripheries. A volume based on a modern political boundary (only Ackerman, Choquette, and Fedje's chapters stray much outside of British Columbia) is inherently less useful than one which is more sensitive to archaeological units of analysis. The editors' imposition of Carlson's "traditions" scheme regrettably does not help the coherence of this volume. Relatively few of the authors, each of whom has been placed into one or another "tradition", use Carlson's scheme as an orienting framework, or place their work explicitly within it. Perhaps this volume shows that more data is needed before reliable discussion of the "big picture" can be undertaken, in which case more suggestions for future research would be helpful. The book is based on a 1988 conference (the editors are defiantly unapologetic - even smug - about the eight year delay before publication), yet some additional contributions were solicited as late as 1994. A different editorial vision might have seen the need for more coherence and integration, so that the volume could be a whole greater than the sum of its parts.

Surprisingly, the co-editor Dalla Bona - not a BC specialist - doesn't seem to have contributed this broader perspective, (he might have included some notes on his expertise in the use of predictive modeling). In the forward (p. vii) it is made clear he was brought in "for the specific purpose of designing the volume and formatting the papers" - a task he has done well as this is an exceptionally attractive volume. As there is no indication he made any editorial contribution to the content - and he does not, as one might expect, co-author the introduction and conclusions - the question arises: since when does the formatter of a book get their name on the cover?

All in all, the positive aspects of this book are considerable: it is well presented, diverse, and reasonably priced. However, most readers who have been stimulated by recent developments and discoveries, and who are interested in early period British Columbia as part of a greater whole, will be forced to look for a useful synthesis elsewhere.

Quentin Mackie

Quentin Mackie is a visiting lecturer in the Department of Anthropology, University of Victoria. He is finishing his PhD dissertation on the spatial analysis of habitation sites on the west coast of Vancouver Island at the University of Southampton, England.

PERMITS

Issued by the Archaeological Branch: March-August 1997

This list will complete the list of Permits issued by the Branch in 1996. 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.

1997-050	Kevin Twohig	Insp.	AIA of DIAND proposed water pipeline between Massett and Massset IR#1, QCI
1997-051	Don Johnson	Alt.	Alterations to CMTs by McMillan Bloedel (Kelsey Bay) proposed forestry operations within TFL 39, Block 2, near Kelsey Bay, Campbell River FD
1997-052	Peter Scharf	Alt.	Alterations to CMTs by PFP (Gold River Woodlands) within FL A19231, TFL 19, Campbell River FD
1997-053	Heather Pratt	Insp.	AIA of PFP forestry operations within TFL 19, Nootka Sound area, VI
1997-054	John Waring	Alt.	Alterations to CMTs by PFP (West Coast Contract Logging) within FL A19231, TFL 19, Campbell River FD
1997-055	Wayne French	Alt.	Alterations to CMTs by McMillan Bloedel (Franklin) forestry operations in TFL 44, within traditional territories of the Ditidaht and Huu-ay-aht First Nations, Port Alberni FD
1997-056	Susan Woods	Insp.	AIA of McMillan Bloedel (Kennedy Lake, Estevan, Sproat Lake) forestry operations, southern Vancouver Island
1997-057	Warren Hill	Insp.	AIA of UBC forestry operations in CB1, CB2, and CB3, Woodlot License W0037, Malcolm Knapp Research Forest, NE of Port Coquitlam
1997-058	Bruce Ball	Insp.	AIA of three cattle watering-hole excavations within NE quarters of Sections 6,7,8, Tp.53, Lillooet Land District
1997-059	Vicki Feddema	Insp.	AIA of Coulson Forest Products forestry operations in FL A19234 and associated tenures, N and W of Toquart Bay, Port Alberni FD
1997-060	Robert Howie	Alt.	Alterations to CMTs within FL A19234, Port Alberni FD
1997-061	Harvey Simons	Alt.	Excavation and removal of imported midden deposits from DcRu 605, NW of junction of Hallowel and Admirals roads
1997-062	Jean Bussey	Insp.	AIA of Weyerhauser Canada Ltd. and other licensees' forestry operations within the Penticton FD
1997-063	Barry Campbell	Insp.	AIA of proposed subdivision of Lot 1441, Clayoquot Land District, VI
1997-064	Jean Bussey	Insp.	AIA of Canadian Hunter Explorations, Texaco Canada, and other companies' oil and gas developments in NE BC
1997-065	Brain Mazur	Alt.	Alterations to EdQs 22 at 101 James Street, Grindrod
1997-066	Jean Bussey	Insp.	AIA of SBFEP and MoF Woodlot forestry operations within the Penticton FD
1997-067	Gabriella Prager	Insp.	AIA Slocan Forest Products, MoF, and other licensees' forestry operations within the Dawson Creek, Fort St. John, and Fort Nelson Fds
1997-068	Ian Wilson	Insp.	AIA of McMillan Bloedel (Justkatla) forestry operations in Block 6, TFL 39, Queen Charlotte Islands FD
1997-069	Lucas Stiefvater	Alt.	Alterations to DjSf 22 by condominium development, Nelson Land District, VI
1997-070	Martin Handly	Inv.	Systematic data recovery at EdQq 2, Mabel Lake, ODYD
1997-071	Dean Wanless	Alt.	Alterations to CMTs within TFL 54, between Ucluelet and Tofino, Port Alberni FD
1997-072	Quentin Mackie	Alt.	Excavations at DcRu 4, Kosapsom Park, Saanich
1997-073	D'Ann Owens-Baird	Insp.	AIA of proposed Industrial Park on Bees IR#6 and adjacent portions of foreshore, Douglas Channel
1997-074	Ian Wilson	Insp.	AIA of Ainsworth Lumber Co. Ltd. forestry operations within CPs 129, 141, 146, and 148, Lillooet TSA
1997-075	Clinton Coates	Insp.	AIA for proposed subdivision of DL 1035, District of Sicamous
1997-076	John Somogy-Czizmazia	Insp.	Site inventory between Thunder Bay and Frolander Bay, WSW of Saltery Bay, NWLD
1997-077	Morley Eldridge	Insp.	AIA of Scott Paper Ltd. forestry operations within TFL 43, Cut Blocks 22-24 on the Fraser River, Chilliwack FD
1997-078	Bjorn Simonsen	Insp.	AIA of Bamberton Towne Centre Development and adjacent lands, Cowichan Valley Regional District
1997-079	Bjorn Simonsen	Insp.	AIA of highway upgrading projects in Skeena Highway District: Hwy 16 between Shandilla and Andimaul creeks on S side of Skeena River; Highway between Kitimat and Henderson's Ranch IR#11 on E side on Minette Bay
1997-080	Dana Lepofsky	Inv.	Excavation of house platform at Scowlitz Site (DhRl 16) and mapping of burial mounds, cairns and other features at DhRl 15
1997-081	Kevin Twohig	Insp.	AIA of DIAND proposed waterline between Massett and Massett IR#1
1997-082	Bjorn Simonsen	Insp.	AIA for proposed subdivision on N side of Ladysmith Harbour within Sublots 1 & 2, Parcel C (DD 11389-N), Oyster Land District
1997-083	Joseph Hinke	Alt.	Alterations to CMTs on or near FbSv 4, TSL A42621, Burke Channel, Mid-Coast FS
1997-084	Ian Franck	Insp.	AIA of proposed commercial development, Lots 17 and 18, Block 11, DL 1356, Plan 11795, near Sechelt
1997-085	Tanja Hoffman	Insp.	Site inventory within In-SHUCK-ch traditional territory; ground-truthing results of Squamish FD AOA
1997-086	D'Ann Owens-Baird	Insp.	AIA of proposed subdivision of Lots 5, 6, and 9, Section 2, R2W, Highland District, Plan VIP 58025
1997-087	Mary Quirolo	Insp.	AIA for proposed subdivision of Part of SE¼ Section 23, Tp 22, R10, W6M, KDYD, north shore of White Lake
1997-088	David Pokotylo	Inv.	Excavation of DgRn 23 at Hatzic
1997-089	Kevin Twohig	Alt.	Data recovery at FcRh 6, within Lot A, DL 11464, Cariboo District, Plan PGP 39216, Little Horsefly Lake
1997-090	Ian Wilson	Insp.	Site inventory of Tochcha and Owen-McBride IRM units, Morice FD
1997-091	Morley Eldridge	Insp.	AIA of Skeena Sawmills Ltd. proposed forestry road in Bish Creek drainage near Kitimat IR#6, Kitimat Arm
1997-092	Vicki Feddema	Insp.	AIA of TimberWest forestry operations within TFL 47 and associated tenures, Queen Charlotte Islands FD
1997-093	Hugh Middleton	Insp.	AIA of proposed residential subdivision, DL 6351, Atlin, Cassiar District
1997-094	Duncan McLaren	Insp.	AIA of BC Hydro's Hayward Lake Reservoir drawdown, NW of Mission
1997-095	Bruce Ball	Insp.	AIA for portion of DgRr 22 at 10625 River Road, Delta
1997-096	Stanley Van Dyke	Insp.	AIA for proposed cottage lot expansions and access road, North Star, Suzanne, and Edwards lakes, Kootenay Land District
1997-097	Karen Preckel	Insp.	AIA of proposed forestry operations within the Chilcotin FD
1997-098	Normand Canuel	Insp.	AIA of Slocan Forest Products Ltd.'s forestry operations, CP 154, 331, and T-98, FL A18157, Vanderhoof FD
1997-099	Ian Wilson	Insp.	AIA of Boyle & Dean Logging Ltd. forestry operations in Bluff Creek and Salter Lake areas, Pitt Island, North Coast FD
1997-100	Martin Handly	Insp.	AIA of forestry operations within the Arrow, Kootenay Lake, and Revelstoke FDs

1997-101	Morley Eldridge	Alt.	Systematic data recovery from DgRs 7, for house construction in Beach Grove, Municipality of Delta
1997-102	Robert Hobbs	Alt.	Excavation, relocation, and removal of archaeological deposits from DgRs 2 for house construction, Municipality of Delta
1997-103	Vicki Feddema	Insp.	AIA of SBFEP forestry operations within the Port Alberni FD
1997-104	Carolyn Allen	Alt.	Excavation of archaeological deposits from DgRr 1 for residential construction and servicing at 12141 Sullivan Street, Crescent Beach, Surrey
1997-105	Peter Merchant	Insp.	AIA for proposed construction of Buckley Bay Main Road and Interchange near DjSf 13, Vancouver Island Highway Project
1997-106	Normand Canuel	Insp.	AIA of The Pas Lumber Company and Carrier Lumber Ltd. forestry operations within FL A18171 & A18158, in the Reynolds, Colbourne, and Isadore operating areas, Prince George FD
1997-107	Karen Preckel	Insp.	AIA of Weldwood of Canada, Ainsworth Lumber, Lignum Ltd., MoF, and other licensees' forestry operations in the 100 Mile House FD
1997-108	Arne Carlson	Insp.	AIA of Houston Forest Products Co. forestry operations within FL A16827, Morice FD
1997-109	Normand Canuel	Insp.	AIA of Northwood Pulp & Timber Ltd. forestry operations within FL A16816, A16824, A16828, and A49480, Morice, Bulkley, and Lakes FDs
1997-110	Bruce Ball	Insp.	AIA for MoF Small Scale Timber Salvage Program X-087 on the Horsefly Peninsula, Horsefly FD
1997-111	Dale Walde	Insp.	AIA for MoF SBFEP, Crestbrook Cranbrook, Crestbrook Elko, and other licensees' forestry operations in the Cranbrook FD
1997-112	Tanja Hoffman	Insp.	Site inventory within Lil'wat asserted traditional territories to ground truth results of the Squamish FD AOA
1997-113	Karen Preckel	Insp.	AIA of West Fraser Mills, Lignum, Riverside Forest Products, Weldwood of Canada, MoF, and other licensees' forestry operations within the Williams Lake FD
1997-114	Ian Wilson	Insp.	AIA for construction of new Pachena River bridge and highway approaches, Bamfield Road, Vancouver Island
1997-115	Karen Preckel	Insp.	AIA of C&C Wood Products, West Fraser Mills, Slocan Forest Products, Tolko Industries, Weldwood of Canada, Canadian Forest Products, MoF, and other licensees' forestry operations within the Quesnel FD
1997-116	Arne Carlson	Insp.	AIA of MoF SBFEP forestry operations within the Vanderhoof FD
1997-117	Arne Carlson	Insp.	AIA for proposed subdivision on Lot C, Plan 6989, DL 1174, Rge 5, Coast Land District, on N shore of Fraser Lake
1997-118	Dale Allen Walde	Insp.	AIA of Crestbrook Forest Industries, Radium Division of Slocan Group, MoF, and other licensees' forestry operations in the Invermere FD
1997-119	Tanja Hoffman	Insp.	Site inventory within Squamish asserted traditional territory to ground truth results of the Squamish FD AOA
1997-120	Martin Handly	Insp.	AIA of Toko Industries, Weyerhauser Canada, and MoF forestry operations within the Vernon FD
1997-121	Shawn McLennan	Alt.	Alterations to CMTs within Setting Bark 101 and Barkely 17 Access Road near Ucluelet, Port Alberni FD
1997-122	Andrew Martindale	Inv.	Site inventory within Gitnadoix River drainage and excavations at sites including GbTh 4
1997-123	D'Ann Owens-Baird	Insp.	Site inventory and evaluative testing of sites in areas being considered for potential campsite development within Discovery Island Provincial Marine Park
1997-124	Robert Lackowicz	Insp.	AIA of Pope & Talbot, Weyerhauser Canada, and MoF forestry operations within the Boundary FD
1997-125	Normand Canuel	Insp.	AIA for proposed subdivision of DL 5164, Cariboo Land District, on the E shore of Davie Lake
1997-126	Dean Wanless	Alt.	Alterations to CMTs within FL A19232, TO 193 and TO 219, between Gold River and Kyuquot, Campbell River FD
1997-127	Arne Carlson	Insp.	AIA of Sheraton Log Yard within Endako River valley, on DL 4149, Rge 5, Coast Land District, Lakes FD
1997-128	David O'Regan	Insp.	AIA for construction of Cogeneration facility and access road adjacent to Fletcher Challenge Canada Ltd.'s pulp and paper mill on DL 109, Sayward Land District, near Campbell River
1997-129	Kevin Twohig	Insp.	AIA of Ainsworth, Lignum, Riverside, UBC Research Forest, Weldwood of Canada, West Fraser Mills, and MoF forestry operations within the asserted traditional territories of the Canoe Creek, Soda Creek, and Williams Lake First Nations in Horsefly, 100 Mile House, and Williams Lake FDs
1997-130	Nicole Oakes	Insp.	Site inventory of selected areas within the asserted traditional territory of the Scowlitz Band near Harrison Mills
1997-131	Jeff Bailey	Insp.	AIA for proposed natural gas pipeline from Coldstream Regulator Station on Reservoir Road to BC Gas offices on Kalamalka Road, near S edge of Vernon municipal boundary
1997-132	Bruce Ball	Insp.	AIA of MoF SBFEP forestry operations, Williams Lake FD
1997-133	Rob Lackowicz	Insp.	AIA of Tolko Industries Nicola Valley Division forestry operations near the Tulameen River drainage, Merritt FD
1997-134	Arne Carlson	Insp.	Site inventory and evaluation within the Fraser Lake - Cheslatta Lake Trail Segment, between Dry William Lake and Hallett Lake
1997-135	Hugh Middleton	Insp.	AIA for forestry operations within FL A47409 and A55903, Chilcotin FD
1997-136	Vicki Feddema	Insp.	AIA of International Forest Products, Port Hardy Operations forestry operations within FL A19238, Port McNeill FD
1997-137	Bruce Ball	Insp.	AIA of Ainsworth Lumber Company Ltd.'s forestry operations in TSL A49429-06, Arrowstone Hills W of Deadman River, Kamloops FD
1997-138	Bjorn Simonsen	Insp.	AIA of Western Forest Products, Mid Coast Operations Region forestry operations in the Mid-Coast FD
1997-139	Clinton Coates	Insp.	AIA of Repap BC Inc.'s forestry operations in NW BC
1997-140	Vicki Feddema	Insp.	AIA of TimberWest Middlepoint/North Island Region, Johnstone Strait Operations forestry operations within TFL 47 and associated tenures in the vicinity of Johnstone Strait
1997-141	Barbara Kulle	Insp.	AIA of Husky Oil Operations and Murphy Oil Co. operations in NE BC
1997-142	Ian Wilson	Insp.	AIA of forestry operations within FL A19201, Fraser TSA, including haul roads S-77 and M-56, and Cut Blocks A-45, M-52, M-53, M-56, and E-135, Chilliwack FD
1997-143	Karen Preckel	Insp.	AIA of Weyerhauser Canada and other licensees' forestry operations within the Kamloops FD
1997-144	Stan Copp	Insp.	AIA for proposed Golddust Gravel Pit (#1711) in the upper Similkameen River Valley
1997-145	Richard Brolly	Insp.	AIA of proposed Seymour Falls Water Treatment Plant (North Vancouver) and Coquitlam Primary Disinfection/Control Facility (Coquitlam)
1997-146	Collin Grier	Alt.	Excavation of Dionisio Point Site (DgRv 3), Dionisio Point Provincial Park, Galiano Island
1997-147	Jeff Bailey	Insp.	AIA of MoF and licensees' forestry operations in the Spuzzum, Boston Bar and Boothroyd areas of the Chilliwack FD
1997-148	Jean Bussey	Insp.	AIA of Damax Consultants Ltd.'s proposed sewage disposal area for the Heritage Hills - Appel Estates housing development, as well as or other small housing-related projects in the Penticton area
1997-149	Andrew Mason	Insp.	AIA of MoF SBFEP forestry operations within TSLs A46496, A48807, A51128, A53943, A54015, and A56193, Chilliwack FD
1997-150	Stan Copp	Insp.	AIA of Weyerhauser Canada Ltd.'s Cut Bock 682-02, vicinity of Whipsaw Creek, upper Similkameen River Valley
1997-151	Bjorn Simonsen	Insp.	AIA of Interfor forestry operations within the Mid-Coast FD
1997-152	Bjorn Simonsen	Insp.	AIA of MoF SBFEP forestry operations within the Mid-Coast FD
1997-153	Bjorn Simonsen	Insp.	AIA of Skeena Sawmills Ltd.'s forestry operations within TFL 41 and MoF timber sales near the confluence of Weewanie and Gleeman Creeks, and at Eva Point, Kallum FD
1997-154	John Maxwell	Insp.	AIA of Western Forest Products' forestry operations within Rob Vincent TFL 25, Griffin Passage, on Roderick and Pooley Islands
1997-155	Martin Handly	Insp.	AIA of Tolko Industries, Nicola Valley Division forestry operations within the Merritt FD

1997-156	Bjorn Simonsen	Insp.	AIA for a proposed 140-subdivision of the remainder of NW¼ of Section 2, Gabriola Island, Nanaimo District
1997-157	Shawnee Palmantier	Insp.	AIA of Lignum, TimberWest, and other licensees' forestry operations within asserted traditional territory of the Tl'esqox First Nation, Williams Lake FD
1997-158	Kevin Twohig	Alt.	Data recovery from EkRf 12, Drewry Lake, Lillooet District
1997-159	Arne Carlson	Insp.	AIA of 55 MoF Woodlots within the Vanderhoof FD
1997-160	John Dewhirst	Insp.	AIA for proposed subdivision of Lot 3, DL 29, Nanoose District, and part of the Bed of Georgia Strait near French Creek
1997-161	Ian Wilson	Insp.	AIA of Interfor forestry operations in the Kumealon Inlet, Brown Lake, Hayward Creek, Scotia River, Ayton Creek, and Big Falls Creek areas, North Coast FD
1997-162	Bruce Dahlstrom	Alt.	Systematic data recovery from DhSb 43, in Lot 1, Plan 40820, DL 123, Nanoose District, Parksville
1997-163	Aubrey Cannon	Alt.	Site inventories and systematic core and bucket auger sampling of sites ElTa 18, 20, 21, and ElTb 2 on Hunter Island; ElTb 1 on Hurricane Island; ElSw 4 on Burke Channel; ElSx 8 and 10 on Fougner Bay; ElSx 4, 5 and ElSw 1, 2, and 3 on King Island, Central Coast
1997-164	Bruce Ball	Insp.	AIA of MoF silviculture development 920.089.001 on E side of Fraser River, Williams Lake FD
1997-165	Bjorn Simonsen	Insp.	AIA of Interfor forestry operations within the Campbell River FD
1997-166	Tanya Hoffman	Insp.	AIA for proposed redevelopment of the Jericho Tennis Club, Vancouver
1997-167	Normand Canuel	Insp.	AIA of Rustad Brothers and other licensees' forestry operations within the Bear Lake and Sustut operating areas, Fort St. James FD
1997-168	Ian Franck	Insp.	AIA of Evans Forest Products, Federated Co-op, and other licensees' forestry operations within the Salmon Arm FD
1997-169	Juggy Pallan	Alt.	Alterations to the Beach Grove Site (DgRs 1) by geotechnical testing at 1642 56 Street, Tsawwassen
1997-170	Arne Carlson	Insp.	AIA of MoF forestry operations within the Morice FD
1997-171	Dale Walde	Insp.	AIA of Evans Forest Products' forestry operations in the Golden FD
1997-172	Keary Walde	Insp.	AIA of Federated Pipelines Ltd.'s proposed pipeline from the Taylor Plant Site to the Alberta border
1997-173	Keary Walde	Insp.	AIA of proposed Alaska Highway realignments between Km 763 - 783, 825 - 839, 882 - 906, and BC portions of 906 - 922
1997-174	Bruce Ball	Insp.	AIA for Tolko Industries' forestry operations within CPs 208, 584, and 618, Kamloops FD
1997-175	Bjorn Simonsen	Insp.	AIA for proposed development of Evergreen Estates' Alder Beach Resort, on Lot 1, Section 3, Paln 27939, Merville
1997-176	Ian Franck	Insp.	Site inventory of the Galene Lakes area, within the Skagit Range of the Cascade Mtns.
1997-177	Ian Wilson	Insp.	AIA of MoF forestry operations in Cutblocks A42515, A42518, A42519, A47269, and A47488, Bulkley - Carrier FD
1997-178	Ian Wilson	Insp.	AIA for AEC West Ltd.'s proposed pipeline from Alberta border to wellsites a-82—I 93-P-8 and a-28-A 93-P-9, near Swan Lake, NE BC
1997-179	Clinton Coates	Insp.	AIA of MoF SBFEP forestry operations in the Kispiox FD
1997-180	Kelly Bush	Alt.	Excavations at DgRg 4, upper Skagit River Valley, E of Skagit River
1997-181	Howie Aikman	Alt.	Alterations by TimberWest to CMTs in FgUb 3, within TFL Brad Baron 47, Block 18, Moresby Island, QCI FD Wayne Johnson
1997-182	Keary Walde	Insp.	AIA of Chauvco Resources Ltd.'s proposed compressor station N of the Chinchaga River
1997-183	Andrew Mason	Insp.	Site inventory within Clayoquot Sound, west coast of VI
1997-184	Dale Walde	Insp.	AIA of MoF and other licensees' forestry operations in the Kootenay Lake FD
1997-185	Morley Eldridge	Insp.	AIA of Pac-Rim LNG Inc. Pipeline route, plant site and related activities from Summitt Lake to Kitimat and parts of Douglas Channel [cancelled]
1997-186	Monty Mitchell	Insp.	AIA of TimberWest forestry operations in the asserted traditional territories of the Alexis Creek Band, Ulkatcho Band, and Xeni Gwet'in First Nation Government, Chilcotin FD
1997-187	Monty Mitchell	Insp.	AIA of Riverside Forest Products' forestry operations in the asserted traditional territories of the Alexis Creek Band, Ulkatcho Band, and Xeni Gwet'in First Nation Government, Chilcotin FD
1997-188	Clinton Coates	Insp.	AIA for MoF forestry operations within the Kalum FD
1997-189	John Dewhirst	Insp.	Site inventory and evaluative testing of Lot B, Sections 1 & 4, Olan 18904 and Section 1, Goldstream District
1997-190	Keary Walde	Insp.	Site inventory and AIA of a seismic program proposed by Amoco Canada in vicinity of Halfway, Graham and Chowade Rivers and Horseshoe Creek, W of Wonowon
1997-191	Keary Walde	Insp.	AIA for proposed acid gas pipeline, acid gas injection well site, and ancillary facilities originating at the Novagas Caribou Plant site and terminating at well site a-30—G, 94-G-7, near Caribou and Mistahae Creeks, NE BC
1997-192	Keary Walde	Insp.	Site inventory and AIA for Amoco Canada Petroleum Company proposed facilities at and leading to wellsite a-3-J, 94-G-4, near Sikanni Chief River
1997-193	Duncan McLaren	Insp.	Site inventory of selected areas: Anderson Creek, Chipuin Creek, Pavilion Creek, Leon Creek, McKay Creek, Sallis Creek, and Mount Cole
1997-194	John Maxwell	Insp.	AIA for proposed abalone hatchery development and associated activities, DLs 3093 & 3094, Range 4, Coast District, Ethelda Bay on Barnard Island, Estevan Group
1997-195	Normand Canuel	Insp.	AIA of Canadian Forest Products (Isle Pierre, Netherlands, Bear Lake, and Clear Lake Divisions) and other licensees' forestry operations in the Prince George and Vanderhoof FDs
1997-196	Rob Shortland	Insp.	AIA of MoF forestry operations in cutblocks A53169 A and B, A53192, A45590 A and B, in the Alan Reach and Captain Cove areas, North Coast FD
1997-197	Bruce Ball	Insp.	AIA of Tolko Industries' forestry operations in CP 847, Block 1, Skull Mountain area, Kamloops FD
1997-198	Arne Carlson	Insp.	AIA of Fraser Lake Sawmills' forestry operations in FL 16826, Lakes TSA and FL 18162, Vanderhoof TSA
1997-199	Craig Westwood	Alt.	Alterations to CMTs in TL 39 and associated tenures on northern VI and adjacent mainland, Port McNeill and Mid-Coast FDs
1997-200	Ian Wilson	Insp.	AIA for proposed frontage road alongside Highway 1, near Popkum in the Fraser Valley
1997-201	Ian Wilson	Insp.	AIA of International Forest Products' forestry operations within the Strathcona/Arrowsmith TSA, Campbell River FD
1997-202	Ray Dechene	Alt.	Alterations to site DgSb 43 near Parksville, Nanoose District
1997-203	Renee Carriere	Insp.	AIA of MoF forestry operations within the asserted traditional territories of the Alexis Creek Band, Ulkatcho Band, and Xeni Gwet'in First Nation, Chilcotin FD
1997-204	Gordon McCorquodale	Alt.	Alterations to site DhRt 58 from construction of a settling pond, parking lot, and park, at North Service and McDonald roads, Vancouver International Airport, Sea Island
1997-205	Bruce Ball	Insp.	AIA for proposed subdivision within Parcel A (R12035), DL 8133, Cariboo District, located on W side of Likely Road near confluence of Big Lake and Big Lake Creek
1997-206	Clinton Coates	Insp.	AIA for proposed subdivision in K.D.Y.D.
1997-207	Keary Walde	Insp.	AIA for proposed petrochemical developments within areas delineated on NTS map sheets 93P/9 & P/16, 94A/1-3, A/6-10, A/15-16, and 94H/1-3, H/6-11, and H/14-16, NE BC
1997-208	Ian Wilson	Insp.	AIA of forestry operations in Part NE¼, Sec.20, Tp.1, Rge.5, Coast District, on the Tsimpsean Peninsula near Port Simpson

1997-209	Jean Bussey	Insp.	AIA for proposed BC Gas Southern Crossing Pipeline Project from Yahk to Oliver
1997-210	Keary Walde	Insp.	AIA for various Suncor Inc. small-scale petrochemical developments within the areas delineated on NTS map sheets 94A, 94B, and 94D, NE BC
1997-211	Bruce Ball	Insp.	AIA of Ainsworth Lumber Co.'s forestry operations within CP 554 and 558, FL A18690, and Pulpwood Agreement #16, Kamloops FD
1997-212	Keary Walde	Alt.	Systematic data recovery fro HiRq 1, located along a proposed acid gas pipeline between Novagas Caribou Gas Plant and wellsite a-30-94-G-7, NS BC
1997-213	Stan Van Dyke	Insp.	AIA for proposed bike loop trail system in Wasa Lake Provincial Park
1997-214	Michael Klassen	Insp.	Site inventory within the Chilko River drainage, N of Chilko Lake
1997-215	David Marshall	Alt.	Excavate and move midden deposits from DcRt 69 during replacement of storm drain within the existing easement on Quimper and Maquinna Streets, Oak Bay
1997-216	Richard Brolly	Alt.	Excavation of sites, including DiRu 33, on DL 877, NWD, on Gambier Island
1997-217	Sheila Minni	Insp.	AIA of forestry operations within TSL A45241, A47641, A51126, A50819, and A51121, Quesnel FD
1997-218	Peter Merchant	Insp.	AIA of Canadian Forest Products, Tolko Industries, West Fraser Mills, and other licensees' forestry operations in the Quesnel FD
1997-219	Ian Wilson	Insp.	AIA of JS Jones Timber Ltd.'s forestry operations in the Chilliwack and Lillooet FDs
1997-220	Peter Merchant	Insp.	AIA of Tolko Industries, Quest Wood Division's forestry operations in DP22U-6, Quesnel FD
1997-221	Matt Palmer	Alt.	Alterations to DhSb 8, 17, 18, and 19 for sewer extension at Craig Bay, VI
1997-222	Normand Canuel	Insp.	AIA for Swamis Resources Ltd/'s proposed back-country recreation facility in the SE¼ and NE¼ of DL 1518, Rge.5, Coast Land District, on the E shore of Babine Lake
1997-223	Ian Franck	Insp.	AIA of Canadian Forest Products, Clear Lake Division's forestry operations in FL A20009, CP208-1, CP 220-1, and CP 222-1, Quesnel FD
1997-224	Bjorn Simonsen	Insp.	AIA for proposed subdivision of Lot 3, D 17, NSSI, Cowichan Land District, Plan 4624, Saltspring Island
1997-225	Bruce Dahlstrom	Insp.	AIA for proposed subdivision of Lot 21, Sec.63, Sooke Land District, Plan 4444, on the shore of Sooke Basin

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GOVERNMENT OF BRITISH COLUMBIA PUBLICATIONS

Ministry of Small Business, Tourism and Culture - Archaeology Branch
1997 British Columbia Designated Heritage Sites Registry.
Free while copies last. Contact: Mr. Milt Wright, Manager, Aboriginal Liaison and Public Education, Archaeology Branch, P.O. Box 9816 Stn Prov. Govt., Victoria, BC V8W 9W3. Tel.: (250) 660-2421 or 1-800-663-7867, ask for 387-1780; Fax: (250) 387-4420.

Ministry of Forests - Aboriginal Affairs Branch
1996 (December) *Traditional Use Study Program Guides: Funding Proposal Instructions, Traditional Use Site Recording Guide, Traditional Use Database Technical Specifications.*
Free while copies last. Contact: Ms. Shannon Gelean, TUS Co-ordinator, Aboriginal Affairs Branch, Ministry of Forests, P.O. Box 9521, 3rd Floor, 610 Johnson Street, Victoria BC V8W 3E7. Tel.: (250) 660-2421 or 1-800-663-7867 (Enquiry BC), ask for 953-4766.

ARCHAEOLOGICAL INSTITUTE OF AMERICA

Archaeological Institute of America - 1997 Archaeological Fieldwork Opportunities Bulletin
Copies can be purchased for $9.00 (AIA members) and $11.00 (non-members) US plus $4.00 S/H. Contact: Kendall/Hunt Publishing Co., Order Department, 4050 Westmark Drive, Dubuque, IA 52002 USA. Tel.: (800) 228-0810 or (319) 589-1000.

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SOCIETY FOR AMERICAN ARCHAEOLOGY

Stuart, George E., and Francis P. McManamon. *1996. Archaeology & You.* Society for American Archaeology.
Single copies are free except for shipping and handling ($4.00 US). Contact: Society for American Archaeology, 900 Second Street NE, #12, Washington, DC 20002-3557 USA.Tel.: (202) 789-8200; Fax: (202) 789-0284.

This publication is a joint effort of the United States Department of the Interior (Bureau of Reclamation and the National Park Service), the National Geographic Society, and the Society for American Archaeology (Public Education Committee). It is a brief introductory booklet to archaeology. The topics covered include what archaeologists do, the preservation of the past, and definitions of archaeology and anthropology.

CONFERENCES

1997

November 22-23 **Sixth Annual BC Archaeology Forum**
STÓ:LO NATION, Chilliwack, British Columbia

November 13-16 **Chacmool, 30th Annual Conference**, "The Entangled Past" Integrating History and Archaeology
UNIVERSITY OF CALGARY, Calgary, Alberta

1998

March 25-29 **SAA, Society for American Archaeology, 63rd Annual Meeting.**
Washington State Convention and Trade Center. SEATTLE, Washington, USA

Further information: *Society for American Archaeology, 900 Second Street NE #12, Washington, DC, 20002-3557, USA; Tel. (202) 789-8200; Fax (202) 789-0284; E-mail: meetings@SAA.org; WWW: http://www.saa.org*

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

First call for titles and abstracts for symposia and papers on all aspects of archaeology of interest to CAA members. Titles and suggestions for sessions are due January 19, 1998, and abstracts are due February 16, 1998. All paper presenters must be CAA members, unless they are from a related discipline and have been invited to contribute a paper or to be a discussant. Students can submit papers in advance of the Conference to be considered for the Weetaluktuk Student Paper Prize.

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*

November TBA **Seventh Annual BC Archaeology Forum**
Mount Currie Indian Band and Creekside Resources Inc.

The BC Archaeology Forum is an annual event designed to facilitate discussion between consulting archaeologists, the Archaeology Branch, academics, and First Nations. It provides an opportunity for the BC archaeology community to review the work accomplished each year, and discuss some of the main issues and problems facing the discipline.

Contact: *Sue Montgomery, Mount Currie Indian Band, Creekside Resources Inc., PO Box 605, Mount Currie, BC, V0N 2K0; Tel. (604) 894-6145; Fax (604) 894-6163; Email: monty@istar.ca*

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