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Field Notes – Stó:lō Fortification Sites – Permits

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Next lecture: 11 April, Dr. James Russell: "Zeno, the Isaurian, the archaeology of an early Byzantine emperor." Joint ASBC/AIA meeting.

THE MIDDEN

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Cover Page

The cover photo, taken by Eric McLay, shows shell midden coring on Valdes Island. From left to right are Kimberley Williams and Stewart Thomas (Lyackson First Nation) and Robert Liang (Penelakut Tribes). Coast Research's fieldwork summary, written by Eric McLay, is presented on page 7.

ROCK WALL FORTIFICATIONS IN THE LOWER FRASER CANYON

by David Schaepe

This article focuses on my preliminary analysis of a unique class of pre-contact site-rock wall fortification features-never before reported on the Northwest Coast. I link my analysis of these features to the nature of pre-contact Coast Salish leadership and political organization as it existed among the central Coast Salish of the Gulf of Georgia/Puget Sound regions in late pre-contact times. This topic is the focus of an ongoing debate among social anthropologists and ethnohistorians. The nature of the anthropological and ethnohistorical information applied to this debate, however, is frustrated in various and often uncertain ways by the effects of smallpox epidemics on "traditional" Coast Salish society. Breaching this "smallpox barrier" requires the use of Aboriginal oral history and/or archaeological data from pre-smallpox times, preferably immediately preceding the first smallpox outbreak to affect the central Coast Salish, circa 1782.

Although the nature of this argument logically entails a "pre-contact" perspective, archaeologists have so far not contributed to this debate. The recent findings and analysis of a number of unique archaeological features-rock wall fortifications in the lower Fraser Canyon-present an opportunity to engage in this discussion from an archaeological perspective. These fortification features, now identified at five sites in the lower Fraser Canyon, provide insights into the nature of Stó:lō warfare and defensive strategy as applied to the Fraser Canyon. I speculate that these walls were constructed and functioned within a centralized leadership system aimed at defending and regulating access to the entire lower Fraser Canyon rather than to individual villages. This application of archaeology provides a perspective and data set useful in evaluating the multi-disciplinary debate over traditional Coast Salish leadership.



Figure 1. The view downriver from the main wall feature at Lexwts'ó:kw'em to the lyem locality.

Defense against the attacks of enemies and raiders was a central concern of Stó:lō society that affected many aspects of Stó:lō culture and the broader Coast Salish culture, including village location and layout, house architecture, and internal social organization. Archaeological evidence for significant inter-community violence on the Northwest Coast dates back at least 3,000 years. In the Gulf of Georgia region, warfare appears to have increased in scale and intensity 1,500-1,000 years ago, establishing at this time the need for defensive sites and fortified villages as a part of everyday life among these central Coast Salish.

Numerous defensive features, including trenches, embankments, and refuge sites, have been identified and investi-

gated on southern Vancouver Island and more broadly throughout the Northwest Coast. Historic accounts of early explorers and Hudson Bay traders in the Gulf of Georgia region describe villages surrounded by wooden palisades and widespread occurrences of warfare and intertribal conflicts. In at least one instance, painter Paul Kane captured on canvas a scene of actual warfare being waged at a Coast Salish settlement. In general, though, warfare has so far gone relatively uninvestigated, anthropologically or archaeologically, and on the Northwest Coast and in the Gulf of Georgia and Puget Sound regions in particular.

Researchers at Stó:lō Nation have, of late, focused some effort on the investigation of warfare and inter-tribal conflict among the central Coast Salish. Stó:lo oral histories, together with archaeological, historical, and ethnohistorical data, reveal the workings of a late pre-contact defensive system in the lower Fraser Canyon. At the centre of our studies are recently identified rock wall fortification features that provide insight into the workings of this defensive system. Apparently unique within the Northwest Coast region, these features are constructed of loosely stacked rock slabs or boulders, sometimes three or more courses high, with individual rocks measuring over a metre in length and likely weighing in excess of a quarter ton. These rock alignments, some over five metres in length, are built of locally available talus from the heavily fractured bedrock of the Fraser Canyon. Simply in regard to their construction, these features represent considerable investment in labour and coordination, which is indicative of some form of coordinated effort and leadership. I have now documented five such fortification sites between the entrance to the Fraser Canyon between Lady Franklin Rock and Lexwts'ó:kw'em, roughly 4.5 miles upriver.



Figure 2.
The main wall feature at Lexwts '6: kw'em.

Stó: lo Nation Historian Keith Carlson and I were initially introduced to the first of these unique features in the summer of 1998. During the time of the Stó:lō elders Fraser Canyon protest fishery in the area of Lexwts'ó:kw'em, Stó:lō Grand Chief Archie Charles of Seabird Island brought the location of a stacked rock wall to our attention. Engaging in a multi-disciplinary archaeological/ethnohistorical effort, we investigated Chief Charles' report. Our investigation entailed in-field review of this feature along with documentary research and interviews with Chief Charles. Our field review confirmed the cultural nature of the feature described by Chief Charles, a prominent rock wall section situated at the break of slope above the Fraser River. We also identified at least two more rock wall sections at the same site. Though located in close proximity to the original Caribou wagon road, we could find no association, through either field survey (including metal detection) or historic research, between historic, non-Aboriginal activities, and the construction of this feature. Rather, this fortification is directly associated with a recorded pithouse settlement known to have been occupied by the Stó:lō into the nineteenth century.

In our interviews with Chief Charles, he recalled oral history describing the use of the rock wall at Lexwts'ó:kw'em. The wall, more extensive long ago than the surviving discontinuous sections, was used to guard against coastal raiders (primarily southern Kwakwaka'wakw warriors) who

manoeuvred their ocean-going canoes up the Fraser River to plunder stocks of canyon winddried salmon and take slaves. Chief Charles collected a number of stone slingshot pellets from behind one wall section, as though cached in readiness to pelt raiders. Other artifacts of war-chipped stone arrowheads and a filed iron dagger from the early contact period-were also found near fortification the at Lexwts'ó:kw'em. slingshot pellets and chipped stone points found by Chief Charles match exactly the descriptions of weapons used for purposes of war published by ethnographer Wilson Duff in his study of the Stó:lō.

Soon thereafter, a number of

other rock wall features were identified in other parts of the canyon-partly by chance and partly through predictive modelling. Ken Malloway of the Tzeachten First Nation informed me of a second rock wall/ platform-type construction on the Xethlath Reserve opposite Lady Franklin Rock. My investigation of this feature also confirmed its cultural nature. Malloway's description of at least one

rock "ball" found in association with this rock feature matched that of the slingshot pellets found at Lexwts' ó:kw'em and described by Duff. From the spatial attributes of these two sites, I developed a predictive model which, when tested, led to the identification of a third site in the Saddle

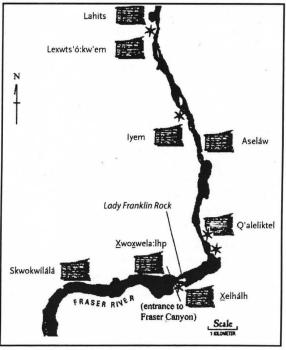


Figure 3. Rock wall sites (*) and late pre-contact Fraser Canyon Stó: lō settlements.

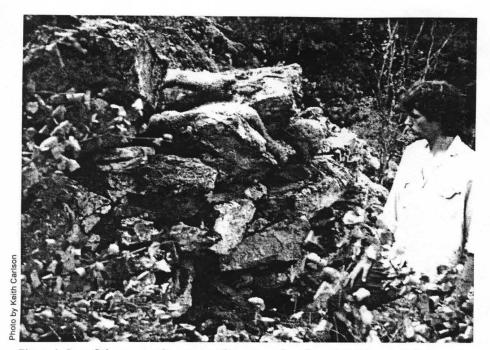


Figure 4. Dave Schaepe standing next to the main rock wall section at Lexwts'ó:kw'em.

Rock/Iyem locality. Two additional sites have since been identified, both of which fall into the range of site attributes of the predictive model.

The five documented fortifications share similar site attributes, representing a spatial and functional pattern that explains their predictability. To summarize the main points of my findings, all are located: (1) in narrow, turbulent places in the canyon which act as natural barriers to upriver canoe travel; (2) on prominent lookout points or high bluffs situated immediately above the river and affording line-of-sight communication with surrounding settlements and neighbouring fortification sites; and (3) near Stó:lō settlements occupied at the time of contact. It is highly unlikely, within the rugged canyon terrain, that these shared qualities are merely coincidental. From these factors, the oral history provided by Chief Charles, and the association between weapons and rock wall features, I hypothesize that the fortification sites were strategically selected as a series of guard stations along the river and as links to inter-village line-of-sight communication. These factors also suggest that the defensive system involved a coordinated and cooperative multi-village effort aimed primarily at regulating river passage into and through the canyon. The system seems to have operated from the time of its precontact origins until the mid-nineteenth

century when, under the influence of colonial assimilation policies emphasizing agriculture over fishing, the Stó:lō migrated from their canyon settlements to take up farming in the Fraser Valley.

Continuing to evaluate this hypothesis, the data on which it is based, and other warfare-related information will provide critical links to a fuller understanding of the structure of pre-contact Coast Salish leadership and political organization. Such pursuits complement archaeological studies of changing settlement patterns, community development, and social status. The outcomes of such studies will likely serve to expand the sphere of influence and utility of archaeology, allowing the contribution of archaeological perspectives to multi-disciplinary studies and debates in which archaeologists have not yet participated.

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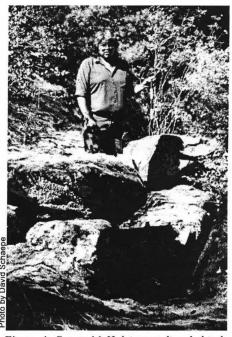


Figure 4. Sonny McHalsie standing behind the main rock wall at Lexwts'ó:kw'em.

FIELD NOTES

ARCAS CONSULTING ARCHEOLOGISTS LTD.

A TOTAL OF 103 PROJECTS were conducted in 1999. By the end of the year, 13 full-time archaeologists, two draftspersons (one full-time, one part-time), four administrative staff, and two company principals were employed at Arcas. In addition, ten assistant archaeologists and dozens of First Nations assistants were employed on field projects, most during the summer and fall months.

Less work was conducted on the Coast compared to previous years, especially on the North Coast. Together with assessments conducted for past forestry clients in the Campbell River and Port McNeill forest districts, forestry impact assessments were carried out in the Squamish and Chilliwack forest districts. Among the tedious multitude of CMTs typically found during coastal forestry projects, there were two discoveries of particular interest on the Coast in 1999. A nearly intact cedar bentwood box, filled with ceremonial regalia, was found in a secluded rockshelter near a proposed forestry cutblock in Seymour Inlet. This site is about 1 km from EgSt 2, where many such boxes were collected and analyzed by RBCM archaeologists in the 1970s. Another interesting new site from this region was an undocumented pictograph on Turnour Island, portraying what appears to be a high-status woman flanked by images of two coppers and a conical chief's hat.

The most interesting project in the Lower Mainland region was a brief test excavation at a rockshelter site near the confluence of the Elaho and Squamish rivers. Among the finds in 50+-cm-deep cultural deposits were small side-notched projectile points, as well as further evidence that lithic raw materials were being procured from nearby alpine environments. Another interesting project was an impact assessment for a proposed development on the Popkum Indian Reserve east of Chilliwack. Part of the traditional Stó:lo village of papk'um was relocated

and re-recorded, including an extensive and locally dense scatter of fire-altered rocks and flaked stone debitage. Ground stone was not nearly as prevalent, but included a nephrite hammerstone and celts. The reserve lands are distinguished by many large and small mounds, which, upon testing, proved to be remnants of a massive mid-Holocene landslide from Mt. Cheam.

As in past years, forestry-related impact assessments and overviews dominated the Interior projects. Overall trends saw less fieldwork done in the Chilcotin and 100 Mile House forest districts, more in the Quesnel Forest District, and considerably more in Northwestern BC and in the Lillooet Forest District. As a change of pace, preparation of an exhaustive archaeological and traditional-use-study workplan for the proposed Prosperity Mine Project east of Taseko Lake represented a different Chilcotin-based project.

Six sites-lithic scatters, CMTs, and a trail with associated CMTs-were identified in the Quesnel Forest District. All were recorded west of the Fraser River around Pelican Lake and Pantage Lake. Further south, impact assessments were conducted for forestry developments in the Peterson Creek, Robertson Creek, Mow Creek, and Bonaparte Lake watersheds of the Kamloops Forest District. Nineteen sites were found, including CMTs, heritage trails, cultural depressions, and lithic scatters. In the Robertson Creek locality, an interesting discovery was a shaped cobble digging-tool, found amidst an extensive scatter of basalt and chalcedony debitage on a high-elevation, south-facing slope where balsamroot currently grows. In the Lillooet Forest District, an assessment of several proposed woodlots and a forestry road on the south shore of Carpenter Lake in the Tommy Creek locality was conducted in association with the Seton Lake Band. One CMT site and six historical mining/trapping sites were identified. Much more fieldwork was carried out for one forest-industry client in the Lillooet Forest District. Work was done in the upper Pavilion Creek watershed, near Junction Creek (tributary of the Yalakom River), and in the McKay-Slok Creek drainages.

Little previous archaeological research has been done in the Yalakom River drainage, and the Junction Creek investigation resulted in the identification of eight sites, the most interesting of which was a small village comprised of medium to large, rectangular to sub-rectangular, shallow cultural depressions with flat bottoms and well-defined rims. These features are suspected to represent winter matlodge dwellings, a habitation feature not often reported in the archaeological literature. Another interesting aspect of the Junction Creek sites is that most could be relatively dated in relation to a layer of Bridge River volcanic tephra, which fell approximately 2300 BP. Thus, of the eight sites observed, four had cultural occupations pre-dating the ash-fall, and six sites had cultural materials that post-dated the ash.

The Pavilion Creek impact assessments were among the most interesting field projects undertaken in the Southern Interior during 1999. The study area is a medium- to high-elevation watershed on the west side of Pavilion Mountain, northeast of Lillooet. Surveys have been conducted by different archaeologists on a number of occasions prior to 1999, representing an unusual level of effort for a subalpine setting in BC. A well-defined network of traditional trails has been identified in traditional use studies; these trails include routes up to the alpine zone of Pavilion Mountain and cross into the neighbouring Maiden Creek drainage, an important source of cryptocrystalline and basalt lithic materials. Approximately 36 sites were known from the study area prior to 1999, of which five conflicted with the forestry development areas examined this year. A total of 53 new sites were identified in 1999, including several in areas thought to have low archaeological potential. Sites recorded include traditional trails, lithic scatters, small and medium cultural depressions, and CMTs, both cambium bark-strips and kindling-collection trees. Unsurprisingly, a strong corre-

lation was observed between sites and the route of the Pavilion Creek Trail-an observation also made by previous authorities. We also saw a striking relationship between limestone outcrops and chertnodule primary reduction workshops. The nodules originated in carbonate rocks and are now found in the glacial drift surrounding the outcrops. It is hypothesized that prehistoric toolmakers may have sought out the highly visible limestone outcrops as favoured places to prospect for chert nodules. Together with abundant evidence of traditional forest utilization, the results of our work in the upper Pavilion watershed adds to the increasing body of evidence that alpine and subalpine environments were particularly attractive to First Nations people.

A number of field projects were done on the Osoyoos Indian Reserve in the south Okanagan. An impact assessment was conducted for a proposed vineyard on a high glacial outwash terrace east of Oliver, but no sites were discovered in this sun-baked desert setting. Better luck was had during a reconnaissance of a proposed winery and resort complex at the southern end of the reserve near Osoyoos, where a buried lithic scatter with a wellformed microblade core was found. In the north Okanagan, an assessment was carried out for proposed improvements at Kekuli Bay Provincial Park on Kalamalka Lake. Sadly, the park's name proved illusory, being the winning entry in a naming-competition among Vernon-area elementary schools. None of the titular pithouse depressions, or indeed anything else, was discovered in this park. Further northwest, an impact assessment was undertaken in Tunkwa Lake Provincial Park, between Logan Lake and Savona, where a systematic surface collection was made at a site threatened by improvements to a campground.

In northwestern BC, 60 new sites were recorded during assessments of forestry developments in the Vanderhoof Forest District. A further 26 sites were found by a site survey at Moose Lake in Ulkatcho traditional territory, where little or no archaeological work had been done. Numerous artifacts were observed during the inventory, and all lithic scatter sites in this area (n=11) were rich in obsidian (reflecting the nearby Anahim Peak source). Nu-

merous microblades, scrapers, bifaces, and a projectile point were also found, and this inventory is not yet completed. The usual mix of post- and pre-1846 CMT sites, cultural depression sites, lithic scatters, and heritage trails (including the Cheslatta trail) were identified elsewhere in the northwest this past year. To the west in the Houston area, only CMT sites were identified, but one cambium-stripped lodgepole pine was dated to AD 1730. A project east of Babine Lake resulted in the documentation of a major heritage trail, leading from Fort Babine to Takla Lake. Far to the north on Atlin Lake, an assessment was conducted on a property that contained abundant evidence of late-19th-century mining activities.

In northeastern BC, impact assessments were conducted for 45 oil and gas developments. A total of nine lithic scatters were recorded, three of which contained diagnostic projectile points. Of particular note, large lanceolate projectile points have been reported from HiRo 10, on the north side of the Sikanni Chief River. Excavations are planned for three locations in the coming year, to compensate for unauthorized project disturbances.

- RICHARD BROLLY.

CARIBOO HERITAGE ARCHAEOLOGICAL CONSULTING

CARIBOO HERITAGE ARCHAEOLOGICAL CONSULTING completed forestry-based AIAs in the Chilcotin and 100 Mile House forest districts in 2000. An archaeological impact assessment was also conducted for the Ministry of Highways for proposed culvert installation at Siwash Bridge, near Bull Canyon.

The bulk of the work was completed in the Chilcotin Forest District: approximately 8,000 ha and nearly 70 km of roads were assessed on behalf of Riverside Forest Products Ltd., Lignum Ltd., Jackpine Forest Products Ltd., Chilcotin Forest District, and Tsi Del Del Enterprises. A total of 10 sites were found in the Chilcotin Forest District consisting of cache pits, one isolated find, and several CMTs. A total of eight representatives from Tsi Del Del, Yunesit'in, and Xeni Gwet'in First Nation



Figure 1: Complete projectile point from Siwash Bridge.

were employed during the fieldwork in the Chilcotin Forest District this year.

Less work was undertaken in the 100 Mile House Forest District. Several cutting permits were assessed on behalf of Jackpine Forest Products Ltd. and Weldwood of Canada Ltd., 100 Mile House Operations. One small subsurface lithic scatter was found. Two representatives from the High Bar Band and two representatives from the Canim Lake Band assisted during fieldwork undertaken in the 100 Mile House Forest District.

An archaeological impact assessment was completed for Ministry of Highways at Siwash Bridge. Siwash Bridge is a large site consisting of housepits, cache pits, and an extensive surface and subsurface lithic scatter across the first terrace above Chilko River. A total of 397 stone artifacts (primarily basalt with lesser quantities of obsidian and chalcedony) were recorded within the project area, including one complete projectile point (see figure). A total of 185 animal bone fragments were also recovered (mammal and bird, but no fish). Intact cultural deposits were observed within one evaluative unit and consisted of well-defined concentrations of charcoal, ash, and heat-altered sediments. Fire-altered rock was abundant and a number of small oval cobbles, broken into irregular pieces (interpreted as discarded boiling stones), were also observed. Recommendations to limit impacts to the site during culvert installation were provided to the Ministry of Highways. - KAREN BRADY.

CHUNTA RESOURCES LTD.

In the 2000 field season, Renée Carrière of Chunta Resources Ltd., and Chris Burk conducted numerous forestry-based AIAs in the Chilcotin and Vanderhoof forest districts. An impact assessment was also completed for a BC Access and Lands (BCAL) lot, on the southeastern aspect of Charlotte Lake, near the community of Nimpo Lake.

Approximately 3,200 ha of forestry development areas (i.e., proposed cutblocks and roads) were assessed in the Chilcotin Forest District, on behalf of West Chilcotin Forest Products Ltd. (WCFP). A total of 30 sites were identified in WCFP's operating areas. The sites consisted primarily of the following site types: CMTs, cache pits, lithic scatters, and isolated finds. Among the CMT sites identified was a single pre-1846 CMT located approximately 1 km NE of the Dean (Salmon) River, and ca. 28 km NW of Anahim Lake. The AIA of a 7.6-ha BCAL lot was surveyed at the request of One Eye Guide Outfitters. A single site was identified along the southern aspect of the BCAL lot, adjacent to Charlotte Lake. The site consisted of a lithic scatter and isolated finds. Field assistants in the Chilcotin Forest District included Ulkatcho'ten First Nation members: Andrew Cahoose, Elroy Cahoose, Kevin Cahoose, Lyndy Dorsey, Cheryl Anne Gilbert, and Crystal Holte.

In the Vanderhoof Forest District, approximately 2000 ha of forestry development areas, consisting of proposed roads and cutblocks, were assessed on behalf of Plateau Forest Products Ltd. Fifteen sites were found in Plateau Forest Products Ltd.'s operating area, consisting of the following site types: CMTs, cache pits, cairn, lithic scatters, and isolated finds. A CMT survey of a 12-km road near Gatcho Lake was also conducted on behalf of the Ministry of Forests. Two CMT sites were identified and recorded in the Gatcho Lake Road area. Two field assistants from the Ulkatcho Band participated in the MoF CMT assessment, while three Ulkatcho Band members and one member of the Saik'uz First Nation participated in the Plateau Forest Products AIAs. - RENÉE CARRIÈRE.

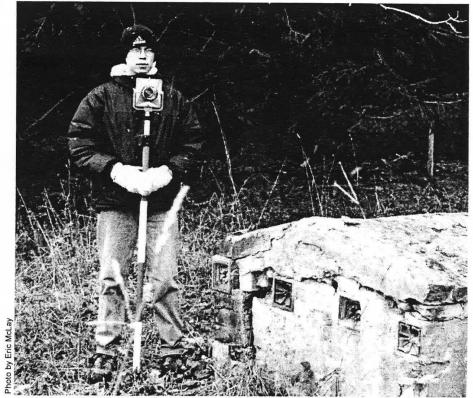


Figure 2: Stewart Thompson, Lyackson First Nation, mapping one of the grave houses dating from the 1870s at the historical cemetery at Shingle Point, Valdez Island.

COAST RESEARCH

In 2000, Coast Research directed several research projects in collaboration with the Lyackson First Nation and Hul'qumi'num Treaty Group on southeastern Vancouver Island.

On behalf of the Hul'qumi'num Treaty Group, an archaeological inventory study was initiated to ground-truth traditional use sites in the Chemainus district of the southern Gulf Islands. This pilot study involved integrating archaeological, archival, and ethnographic evidence from a select range of culturally significant sites to act as a forum for the community discussion of issues concerning traditional use site conservation and management.

In cooperation with the Lyackson First Nation, a large-scale inventory study was directed to document the distribution, diversity, and antiquity of archaeological settlement patterns on Valdes Island. Directed by Eric McLay, Colin Grier, and Neil Miller, three First Nations field assistants received paid educational training in archaeological field methods and issues of heritage resource management. Building upon a complete survey of the coastal strata, exploratory transect surveys

in the interior landscape of Valdes Island sampled select inland micro-environments, including stream valleys, lake margins, swamps, and high-elevation cuestas, to help refine our knowledge of inland archaeological site distributions. A range of coastal archaeological sites, including a variety of shell midden size-classes, house depressions, rock shelter habitations, cultural depressions, and a defensive earthwork, were test-excavated to explore the nature of these specialized site types. Finally, a large-diameter soil corer, custombuilt by UBC's Earth and Ocean Sciences Centre, was used to collect stratigraphically intact, datable material from the basal cultural layers of deep, stratified shell middens across Valdes Island. This archaeological information is being used to construct a chronology of settlement patterns on Valdes Island, intended to contextualize past use of the Gulf Island landscape within a regional, diachronic perspective. This research has also served to help build the baseline archaeological information needed by the Lyackson First Nation to draft a community management strategy for the future governance of heritage resources in their ancestral territory.

Lastly, a feasibility study was directed

to help conserve the Lyackson First Nation's historical cemetery at Shingle Point, IR 4, Valdes Island. This unregistered Roman Catholic cemetery, established ca. 1876, exhibits a unique blend of Coast Salish and Christian mortuary architecture, including several unique, brickvaulted sarcophagi, or gravehouses. Unfortunately, many of these graves have become vandalized and desecrated since the 1950s. With the assistance of a British Columbia Heritage Trust grant, this feasibility study assisted the Lyackson's effort to document the cemetery site for official registry, estimate the conservation work needed to restore the site, and recommend practical measures to protect their ancestral cemetery from future acts of vandalism. - ERIC McLAY.

POINTS WEST HERITAGE CONSULTING LTD.

In 2000, Points West Heritage Consulting Ltd. conducted archaeological investigations in BC, Alberta, Nunavut, and the Northwest Territories. Work was undertaken for forestry clients in the Penticton and Fort Nelson forest districts and for gas and oil clients in northeastern BC and Alberta. The majority of this work involved archaeological inventory and impact assessments, but some archaeological overview assessment was also completed. Representatives of the following First Nations were employed on a project-specific basis: Fort Nelson Indian Band, Fort Liard Indian Band, Kelly Lake First Nation, Osoyoos Indian Band, Penticton Indian Band, Prophet River Indian Band, Westbank First Nation, and West Moberly First Nation. Seven new archaeological sites were recorded in northeastern BC and three were discovered in the Okanagan; site types included isolated finds, lithic scatters, and rock and depression features. In the East Kootenay, field investigations were undertaken for the Ministry of Transportation and Highways along portions of Highway 1 and near Invermere. A member of the Ktunaxa Nation assisted with the detailed field reconnaissance.

Another project involved coordination of archaeological investigations for the

Southern Crossing Pipeline between Oliver and Yahk. It was the fourth year for this project, and inventory and impact assessments were undertaken in conjunction with Wayne Choquette, an independent consultant, and Martin Handly and Rob Lackowicz of Kutenai West Heritage Consulting Ltd. Points West also conducted systematic data recovery at a site (DgQj 1) located near Trail that was threatened by impact as a result of this pipeline. Two members of the Ktunaxa Nation assisted with field excavations. A crew of experienced independent archaeological consultants and two employees of Millennia Research Ltd. also provided assistance during excavation at DgQj 1. This permitted several individuals to obtain sufficient excavation experience to advance to the Professional Member level of the BC Association of Professional Consulting Archaeologists.

DgQj 1 is a large site that extends more or less continuously for several hundred meters south of Beaver Creek on the east side of the Columbia River. A more northerly portion of the site was excavated in the mid-1970s in response to the first pipeline through this area. A second proposed crossing required for the Southern Crossing Pipeline resulted in excavation in 2000. Although it was acknowledged that the site might not be impacted, BC Gas opted to fund an excavation in the event that avoidance was not possible. An area over 100 m north-south and 50 m eastwest was sampled during the six-week excavation. The artifact yield included thousands of flakes, a quantity of unworked animal bone, a stone feature, and numerous stone tools. The tools included projectile points, knives, scrapers, hammerstones, abraders, and unworked flakes of various lithic materials. The variety of lithic material is noteworthy and includes many exotics. Analysis will be conducted in the winter and spring of 2001, but a preliminary assessment suggests multi-period use of this site. Since directional drilling of the Columbia River crossing was successful, DgQj 1 is no longer threatened by impact, and nearby park boundaries have been extended to encompass the site. BC Gas and BC Parks are acknowledged for their efforts to

Points West conducted one project in the central Northwest Territories. This was

the seventh consecutive year that archaeological investigations were undertaken for the EKATI™ Diamond Mine located near Lac de Gras (approximately 300 km northeast of Yellowknife). This is the only producing diamond mine in Canada and archaeological investigations have been conducted in advance of exploration and development activity to minimize the impact to archaeological resources. Twelve new archaeological sites were located during development-specific assessments within a portion of the claim block. The addition of these sites to the inventory brings the total of recorded archaeological sites in the claim block to 162; site types range from isolated finds to camps, but most are lithic scatters. Representatives of the Dogrib First Nation and the community of Lutsel K'e (formerly Snowdrift) assisted with field investigations in 2000.

A project was also conducted in Nunavut. This was the fourth year that investigations were undertaken between Roberts Bay on the Arctic Coast and Aimaoktak Lake, east of Bathurst Inlet, as a result of gold exploration. Twentysix new sites were discovered bringing the total to 115. Site types range from small lithic scatters to camps. Stone features are common and include tent rings, caches, hunting blinds, traps, windbreaks, and hearths. The full range of known culture history in the Central Arctic is represented, including Arctic Small Tool tradition, Thule, Copper Eskimo, and indigenous Inuit. Several sites contain significant quantities of caribou bone. Caribou represent a major food resource prehistorically and traditionally. Also present in the study area are musk ox, another important food resource; musk ox remains have also been noted in archaeological sites in the area. An Inuit from Bathurst Inlet assisted with field investigations. - JEAN BUSSEY.



SHEILA MINNI RESEARCH AND CONSULTING

Sheila Minni undertook a number of consulting projects during the year 2000. Most of these projects were for the Ministry of Transportation and Highways and consisted of existing gravel pit operations slated for expansion that required archaeological impact assessment. The project areas were located throughout the Fraser Valley, in the Fraser Canyon, and in Manning Park. Most of the areas had been seriously impacted by previous extraction and surface clearing, or were too steep to access, and archaeological sites were not recorded. Participating in the fieldwork for these projects were Michael Forsman and Larry Commodore, Chief of the Soowahlie First Nation.

Additional projects were concerned with monitoring construction activities at the Lions Gate Bridge causeway widening for Talisman Environmental Consultants, and monitoring the excavations for a new visitor reception centre at the totem poles near Brockton Point in Stanley Park. This latter work for the Vancouver Board of Parks and Recreation did not expose Aboriginal sites, but it was interesting to note stratigraphic levels indicating original ground surface and old growth stumps ranging from 0.7 m to 1.5 m below the existing ground surface. Large areas have been altered in the Brockton Oval and Brockton Point areas in Stanley Park since park development began in the late 1880s, but it is important to remember that the original ground surface of lowlying areas probably still exists below the fill.

Further work for the Ministry of Transportation and Highways was associated with the upgrading work proposed for the Okanagan Lake Floating Bridge near Kelowna. Field survey determined that archaeological sites would not be impacted by the proposed expansion of Highway 97 and identified two proposed dry-dock areas that also would not impact archaeological resources. Survey of a third proposed dry-dock area adjacent to Bear Creek Provincial Park north of Kelowna on the shores of Okanagan Lake encountered the remains of the Aboriginal site DIQv 2. This site, originally recorded in

1952, has been seriously impacted over time by historic sawmill activity, boom stick yards, and the development of the provincial park. Intensive foot survey, inspection of exposed surface areas, and shovel testing indicated that *in situ* evidence for DlQv 2, consisting of chalcedony thinning flakes, numerous unidentifiable butchered and charred bone fragments, and fire cracked rock, exists from the surface to approximately 30 cm below the surface, extending some 50 m along and 35 m back from the lakeshore edge.

Michael Forsman, after completing his PhD in historic archaeology at the University of Alberta in 1999, continues to pursue his research interests in the North American fur trade, specifically addressing the relationships between demographics and architecture. – Sheila Minni.

STÓ:LŌ NATION

In the last couple of years, Stó:lō Nation continued its active participation in archaeology throughout the Lower Mainland: hosting SFU and UBC archaeological field schools at the Scowlitz and Xá:ytem sites, carrying out a number of resource management projects, and conducting quite a few research projects of their own, some of which involved collaborations with a number of local archaeologists. Stó:lō Nation hired an archaeological assistant—Riley Lewis—to help handle field and office work load. Many Lower Mainland consultants have since had the opportunity to work with him.

With regard to Stó:lō Nation-driven projects, the winter of 1999 was particularly busy. In January, I co-directed a project with Mike Rousseau of Antiquus Archaeological Consultants Ltd. involving an exploratory excavation of a small pithouse site-DgRk 10 (otherwise referred to by the place name Iy'oythel) in the Chilliwack River Valley. Funding for this project was provided by the Ministry of Forests (Chilliwack Forest District) after undergoing a Heritage Conservation Act violation investigation for impacting the site. The Stó:lō field crew on the project consisted of Betty Charlie, Cliff Hall, Dean Jones, and Geno Peters (who some of you might remember from

his Hope Highway Project days). Our project focused on evaluating the integrity of two of the remaining pithouse features in this small settlement. We radiocarbon-dated material from both features, obtaining uncalibrated dates of 4130 ± 40 BP from one, and 2190 ± 110 BP and 2620 ± 60 BP from the other. The older of these dates is significant, implying the early occurrence of a circular, semi-subterranean structure (i.e., pithouse) in the Fraser/Chilliwack Valley area—one of three known semi-subterranean structures in this area pre-dating 4000 BP.

Also in January of 1999, Stó:lō Nation continued to inventory archaeological sites and assess site distribution in the mainland portion of the Gulf of Georgia Region. I directed a MoF funded inventory study of the lower Silverhope Creek valley, just south of Hope, which was carried out in association with Ian Franck of Equinox Research and Consulting Ltd. Ian worked with the Stó:lō field team of Larry Commodore, Dean Jones, and Riley Lewis. Winter conditions limited our study to the lower 10 km of the valley bottom one component of the greater landscape. We identified eight previously unrecorded sites and developed recommendations for continued archaeological exploration of the Silver-Skagit corridor. This study complemented an archaeological investigation carried out by Dana Lepofsky (SFU), Bob Meirendorf (North Cascades National Park), and Stó:lō Nation in the upper Skagit Valley later that summer, in which we identified and plotted six more sites in the process of evaluating the natural (fire) and cultural history of Chittenden Meadow.

That winter was rounded out with a pilot study of Aboriginal trail locations throughout the Lower Mainland that I conducted with the much appreciated assistance of a number of other Stó:lō Nation staff, including Keith Carlson, Dave Smith, Deanna Francis, and Leeanna Rhodes. The results of this study provide a new layer of Aboriginal land-use not well documented to this point. These results have many useful applications, such as assessing archaeological site potential in the uplands where we currently have very little data.

Stó:lō Nation continues to be actively engaged in permitting, issuing nearly 100 Stó:lō Nation archaeological permits in

the last two years. Passing along what has trickled down to my office, the Stó:lō Nation government wishes to thank all those individuals who have respected the archaeological protocols established and administered by the Stó:lō Nation.

The last year saw the Aboriginal Rights and Title Department at Stó:lō Nation working on their forthcoming publication A Sto:lo Coast Salish Historical Atlas. This book is scheduled for release in late-March or early-April by Douglas & McIntyre, University of Washington Press, and Stó:loHeritage Trust. Edited by Stó:lō Nation Historian Keith Carlson, this atlas is the product of a collaboration of over 12 authors-both Aboriginal and non-Aboriginal-with various backgrounds and expertise. This volume contains wide-ranging information-cultural and natural-from the early Holocene through to today. It should prove to be a useful reference for those working or interested in archaeology and Aboriginal history/culture in the mainland Gulf of Georgia Region.

The Stó:lō Nation looks forward to continuing its involvement in archaeology, conducting research and collaborating with local archaeologists in its future endeavours. — David Schaepe.

Stó:lō Nation Conference 5–7 April 2001, Mission, BC

Bridging the Millennia Bridging Cultural and Legal Traditions

This multidisciplinary conference is dedicated to the sharing of innovative and challenging research and activities concerning the Stó:lō Coast Salish people and their neighbours. Hosted by Stó:lō Nation, the conference's theme is Bridging the Millennia, Bridging Cultural and Legal Traditions, and is hoping to highlight and discuss issues related to Stó:lō Governance, land claims, and treaty negotiations. A wide range of issues will be explored, such as treaty and land claims, anthropology, archaeology, culture, history, and resource management.

Contact: Jody Woods, Conference Coordinator, Stó:lō Nation, Building #1 – 7201 Vedder Road, Chilliwack, BC, V2R 4G5; tel. (604) 824-5203; fax (604) 824-5226; email:

Jody. Woods@stolonation.bc.ca.



Since its inception in the 1970s, the BC Heritage Trust has funded numerous projects where the physical remains of BC's past have been partially restored and opened to the public for viewing. Barkerville, Hat Creek House, the Keremeos Grist Mill, and, for archaeology perhaps the most interesting, \underline{X} á:ytem, are just a few of the Heritage Trust supported projects that have become fixed points on the BC cultural map. The ASBC looks back at years of cooperation with the Trust. Not only do we receive generous financial support to help with the production of *The Midden*, but we also ran public interpretation programs funded by the Trust. The most ambitious one was in 1983 at the St. Mungo Cannery site, where thousands of visitors, including hundreds of school children, toured the archaeological salvage dig and tried their hand at screening. If anything has ever brought archaeology to the public, that project must have been it

In an effort to share the vision of the Heritage Trust with a wider audience, Ms. Anne Edwards, Chair of the BC Heritage Trust, has prepared a brief piece, which we have published below. Ms. Edwards hopes to create a dialogue with our membership and I ask that you take advantage of this opportunity and convey to Ms. Edwards your thoughts on the status and vision of the BC Heritage Trust for 2001 and beyond. – Andrew Mason

The British Columbia Heritage Trust 2001

THE BC HERITAGE TRUST has been pleased to contribute funding, over many years, to the publication of *The Midden*. We have never taken the opportunity to use the pages of your publication to create a dialogue although we hope to do so now, and continue contact in the future.

The Trust is legislated as a Crown Corporation, but years of funding cuts have adversely impacted the scope of its activities. In fact, the Trust has no dedicated staff—in the sense that we have staff dedicated to working for us. We have instead various dedicated (to heritage!) Heritage Branch staff doing what they can for us along with their other assignments.

To address this situation, the Trust has been pressing government to provide us with the budget to operate as a more autonomous Crown Corporation. To date, this process has taken nearly two years and has included a consultant's study to consider our situation and recommend change, discussion with staff about the shortfall in funding to the Provincial heritage properties, and continuing discussions with the public. We have asked government to transfer management of the properties to a Trust that truly operates as a Crown Corporation, with enough funding to ensure our long-term success and financial well-being. This reconfigured Trust would contribute by actively involving the public, the private sector, and other organizations and institutions with similar goals.

For the current budget, the Trust was not successful in achieving this goal of greater autonomy and improved financial support. As

a result, the Trust's budget will be as constrained as it has been over the past several years, and our activities will be limited by the willingness of our already overburdened staff to take on more and more responsibilities. The heritage properties will continue to be managed within the Heritage Branch, subject to funding cuts at any time of the year.

However, we are not totally downhearted. The properties have been given some money, and we hope that our advocacy efforts and the support of organizations such as the ASBC will make us stronger and our voice heard in government. Recommendations for our Board, given its reduced means, will be made after our May meeting. Although all the details are far from finalized, one thing is certain: the Board feels strongly that the Trust must continue its efforts to become an organization that is truly at arm's length from government.

I would be pleased to hear any reaction to our ideas for moving forward and welcome any comments or suggestions you may have. My contact information is provided below and I look forward to hearing from you and maintaining this long overdue dialogue with the ASBC.— ANNE EDWARDS

Anne Edwards, Chair BCHT British Columbia Heritage Trust phone (250) 356-1433 fax (250) 356-7796 PO Box 9818 Stn Prov Govt Victoria BC V8W 9W3 heritage@tbc.gov.bc.ca www.heritage.gov.bc.ca

BOOK REVIEWS

Seriation, Stratigraphy, and Index Fossils: The Backbone of Archaeological Dating

Edited by MICHAEL J. O'BRIEN and R. LEE LYMAN

Kluwer Academic/Plenum Publishers, 1999. 258 pp. illus., app., refs. Price: ISBN 0-306-46152-8, (Hc) US\$59.95.

This book is a continuation of a large body of literature that examines how archaeologists date cultural material. However, in contrast to much of this literature, the authors have chosen to return to the period prior to the development of chronometric dating techniques and re-examine the principles behind several methods of relative dating: seriation, stratigraphy, and index fossils. The purpose of this book, in the authors' view, is not only to fill a gap in the present literature in regard to relative dating but also to elaborate on some of the misconceptions associated with the techniques.

The book begins with a general treatise on time, as it is perceived by archaeologists, and establishes some of the concepts and terms used throughout the remaining chapters. Most notably, the opening section outlines the differences between "absolute" and "relative" dates and relates these to the various scales that are used to measure time. This section also introduces the intellectual framework in which chronological investigation developed in American archaeology at the beginning of the last century. Unlike most historians who relate the "stratigraphic revolution" with the emergence of chronology in North American, O'Brien and Lyman see the change developing out of perceived differences in artifact "styles" and the new approaches in which these artifacts were categorized. In Chapter 2 this conclusion is further elaborated through an examination of the early artifact typologies and

how these were utilized as "chronological types". A primary point arising from this discussion is the notion that typologies are archaeological creations and not inherent characteristics of the artifacts.

Chapters 3 and 4 naturally build on the concepts associated with typology, as the authors address the various methods of seriation. As throughout the book, the methodology is related through early examples of the application, with quotes and diagrams providing the framework for the discussion of the techniques. Within these chapters the obvious relationships between biological evolution and the development of seriation are well demonstrated. O'Brien and Lyman further elaborate these parallels in thought through biological examples, which they utilize to distinguish the differences between "heritable" and "historic" continuity. Significant in these chapters is the basis for much of the misunderstanding of seriation methods by archaeologists in the second half of the twentieth century, which in part seems to have evolved from the failure of the early developers to clearly define the concepts behind the various methods.

Chapter 5, "Superposition and Stratigraphy", begins with a historical account of the development of the stratigraphic method in American archaeology and proceeds through the underlying concepts, concluding with an example of the stratigraphic method employed at Gatecliff Shelter. Centred within the discussion are the concepts of geological superposition and cultural strata, which leads to Chapter 6 and the application of index fossils (artifact types utilized for cross dating). In both these chapters, O'Brien and Lyman stress that these last techniques differ substantially from seriation in that time is measured discontinuously rather than as historic continuity. The significance of this point is the assertion that archaeologists have tended to use artifact markers or strata as indicators of particular cultures, without critically evaluating the spatial-temporal distribution of the cultural phases.

In the cover notes it is stated that this book "will appeal to all archaeologists" and the reviewer generally agrees with

this; however, the appeal may be for a variety of reasons since there are several thematics. Primarily, this book can be read as a re-investigation into these various methods of relative dating as the authors had intended. For many this exercise may seem to be of little benefit, since methods such as seriation have gone out of fashion (which the authors admit). However, in many geographic areas, contemporary investigations build upon typological chronologies that are derived from these techniques. In many instances these cultural sequences have been relegated to a "black box" and there is an apparent need to examine some of the principal classifications and historic continuity that is assumed in these cases. Furthermore, O'Brien and Lyman stress that chronometric techniques can only be applied with a clear understanding of some of these methods, particularly the concepts associated with stratigraphic interpretation, although they extend this argument even further and suggest that relative dating techniques, including seriation, may be valuable in assessing the reliability of dates, specifically in attempts to establish cultural continuity.

For others, this book provides valuable insights into the development of the cultural-historical period in America as it chronicles these methodological developments in relation to the historic context. The obvious parallels between Darwinian evolution and typological classification are well highlighted throughout the text and provide strong examples of the biological influences in archaeology during this period. As well, the book highlights the considerable ingenuity that resulted in these chronological methods. However, as a final point of criticism: the centring of discussion within America underemphasizes some of the intellectual foundations that were developed in Europe.

Rob Commisso

Rob Commisso is an MA candidate in the Archaeology Department at Simon Fraser University. His current research interests include environmental archaeology, stable isotope research in archaeology and ecology, and prospection techniques.

PERMITS

The Midden 32/4

ISSUED BY THE ARCHAEOLOGY BRANCH OCTOBER - DECEMBER 2000

The assistance of Ray Kenny (Manager, Assessment and Planning Section) and Alan Riches (Administrative Clerk) in providing this information is gratefully acknowledged. A number of recurrent abbreviations may not be familiar to many readers of *The Midden*. Most importantly, the following abbreviations refer to specific Permit types: ALT = Alteration; INS = Inspection; INV = Investigation. The most common of these are: AIA = Archaeological Impact Assessment, MoF = Ministry of Forests, SBFEP = Small Business Forest Enterprise Program, MoTH = Ministry of Transportation and Highways, ATT = Asserted Traditional Territory, and CMT = Culturally Modified Tree. Several forest industry abbreviations occur, such as: CP = Cutting Permit, FD = Forest District, FL = Forest License, FSR = Forest Service Road, TSL = Timber Supply Licence, TSA = Timber Sales Area, TFL = Tree Farm License, and TL = Timber License. Less often, the following terms that may appear in legal descriptions also appear: LD = Land District, DL = District Lot, Sec = Section, Tp = Township, Rge = Range, and r/w = for right-of-way.

2000-326	Ian Franck	INS	AIA of Ainsworth Lumber Co.'s forestry operations within CP 188, vicinity of Eldorado Mtn., Lillooet FD
2000-327	Steve Chambers	ALT	Alterations to CMTs within DISs 036, DISs 037, DISs 038, and DISs 039 by Weyerhaeuser Company (West Island Woodlands, Franklin Operations) for estry operations in and adjacent to Blocks 9508, 9509, and 9510, FL A19225, end of Port Eliza, Campbell River FD
2000-328	Geordie Howe	INS	AIA of Weyerhaeuser Company (Stillwater Timberlands) forestry opera tions within TFL 39, Block 5, near Phillips Arm, Campbell River FD
2000-329	Michael Graup	ALT	Alterations to CMTs #1,7-11,15, 20-22, 24, 25, 27, 36-38 within GiTt 010 by Skeena Cellulose (Terrace Woodlands Ops) forestry operations in Set ting #312966, TFL 1, NE of Dragon Lake in Kalum FD
2000-330	Kevin Twohig	INS	AIA of MoF forestry operations throughout the ATT of the Canim Lake, Canoe Creek, and Whispering Pines/Clinton Indian Bands, within the 100 Mile FD
2000-331	Gail Wada	INS	AIA of Squamish Mills Ltd.'s forestry operations in Block 60, FL A19214 Chart area, located in the South Tenas area, S of Little Lillooet Lake near Pemberton, within Squamish FD
2000-332	Vicki Feddema	INS	AIA of Canadian Forest Products (Eaglewood Logging Division) forestry operations within TFL 37 and FL A19233, Port McNeill and Campbell River FDs
2000-333	Doris Zibauer	INS	AIA of Ainsworth Lumber Company (Woodland Division) forestry operations within CP 186 and CP 187, in the Nesikep Creek and Intlpam Creek drainages, Lillooet FD
2000-334	Ian Franck	INS	AIA of Ainsworth Lumber Company's forestry operation within CP 191, vicinity of Slok Hill, Lillooet FD
2000-335	Ian Franck	INS	AIA of Ainsworth Lumber Company's forestry operations within CP 190, vicinity of Carson Mountain, Lillooet FD
2000-336	Ian Franck	INS	AIA of Ainsworth Lumber Company's forestry operations within CP 174, vicinity of Nosebag Mountain, Lillooet FD
2000-337	Don Teichroeb	ALT	Alterations to DhRt 006 by residential construction at 4514 NW Marine Drive and 4515 Belmont Avenue, Vancouver
2000-338	Gerald Fleming	ALT	Alterations to DcRu 007 from proposed District of Saanich Parks Depart ment developments on the N shore of the Gorge Waterway from Tillicum Bridge to the Victoria Kayak & Canoe Club property
2000-339	Normand Canuel	INS	Site inventory for MoF along and adjacent to the Alexander Mackenzie Heritage Trail, from Km 0 to Km 69, within Prince George FD
2000-340	Normand Canuel	INS	AIA of Three Nations Water Project proposed by Department of Indian & Northern Affairs, vicinity of Southbank, S of Burns Lake
2000-341	Jennifer Lindberg	INV	Data recovery from EeQt 014, on the W side of the Trans-Canada Highway at White Creek, within Tp 21, Rge 10, Sec 33, KDYD, between Balmoral and Salmon Arm

2000-342	Michael Klassen	INS	Site inventory within Cayoosh Creek IR #1 to support RIC training
2000-343	Gail Wada	INS	AIA of Canadian Forest Products Ltd.'s forestry operations within Blocks 1810 (W side of Lillooet River), 1540 and 1543 (S side of Sloquet Creek), near the head of Harrison Lake, Squamish FD
2000-344	Peter Merchant	INS	AIA of proposed MoTH gravel pit expansions at East Francis Peninsula Pit, within Parts of DL 2815 and 5846 and the SE corner of DL 1392, GP1, NWD, and; Tuwanek Pit, within UCL E of DL 1410, GP1, NWD
2000-345	Hugh Middleton	INS	AIA of Alberta Energy Company oil/gas developments, including 11 pro posed gas wells, 5 associated camps, and access road construction and/or upgrades, within Elk River valley N from Elkford for approximately 20 km, SW BC
2000-346	Don Russell	ALT	Alterations to GhTa 010 by Gitanyow Development Corporation forestry operations within Opening 103P040-54, Block 1, N of Kitwanga on Hwy 37, Kispiox FD
2000-347	Rene Thomsen	ALT	Alterations to Hudson's Bay Company Brigade/Blackeye's Trail (DiRf 001) by construction of a road crossing in the vicinity of Cunningham/Podunk Creek
2000-348	Julie MacDougall	ALT	Alterations to CMTs within FgSc 066 by MoF/SBFEP forestry operations related to the Kluskus-Deerfly FSR r/w and adjacent infection area, N of the Blackwater River, Vanderhoof FD
2000-349	Diana French	INS	Site inventory of Weyerhaeuser Canada's (Lumby Division) Kate Lake Operating Area, SE side of Sugar Lake, Vernon FD
2000-350	Peter Merchant	INV	Data recovery for found human remains and associated cultural materials adjacent to Hunaechin IR #11, located at the head of Jervis Inlet
2000-351	Ian Franck	INS	AIA of Ainsworth Lumber Company's forestry operations within CP 199 S of Hurley River, Lillooet FD
2000-352	Stan Copp	INS	AIA of MoF/SBFEP forestry operations within TSL A50512-04 in the Wolfe-Willis Creeks area, Merritt FD
2000-353	Joel Kinzie	INS	AIA of Anderson Exploration Ltd., Berkley Petroleum Corp., Coastal Oil & Gas Canda Inc., Land Quest Services Ltd., Murphy Oil Company Ltd., PetroCanada Oil & Gas Ltd., Union Pacific Resource Inc. and other petro chemical developers' oil/gas developments within the non-overlapping portion of Dene Tsaa Tse K'Nai (Prophet River) First Nation ATT
2000-354	Joel Kinzie	INS	AIA Anadarko Inc., Berkley Petroleum Corp. (Reserve Pipeline Project and others), Husky Oil Ops Ltd. (c-27-L, 94-B-10 and others), Marathon Canada Ltd., Petro-Canada Oil & Gas Ltd., Suncor Energy Inc. (Wonowon developments and others), Terra Environmental Consultants Ltd., and other petrochemical developers' oil/gas developments within NTS Map Sheets 94 A/4-6, 11-13; 94 B/1-3, 6-11, 13-16; & 94 G/1-4, NE BC
2000-355	Mike Rousseau	INS	AIA of International Forest Products Ltd. (Hope Operations) forestry op erations in Big Silver Creek (Silver River), Chilliwack FD
2000-356	Peter Merchant	INS	Site inventory and AIA for proposed MoTH expansions to existing Wedge Creek Gravel Pit, located 8 km N of Whistler and 2.6 km E of Hwy 99 near Green Lake, and existing Callaghan Gravel Pit, located 5 km N of Daisy Lake and 0.5 km E of Hwy 99, both in New Westminster District
2000-357	Natalie Dewing	INS	Site inventory of selected areas along the valley bottom between Sabiston Lake and Sedge Lake, N of Savona
2000-358	John Maxwell	INS	Site inventory of selected areas of Hupacasath First Nation ATT, W coast of Vancouver Island, South Island FD
2000-359	Sheila Minni	INS	AIA for proposed MoTH expansion of gravel pits #1710/0229 (Forestry Pit, near Manning Park Lodge), #1777A/2756 (Dewdney South Pit, Hwy 5 S of Dewdney Creek Bridge), #1777B/7004 (Dewdney North Pit, Hwy 5 N of Dewdney Creek Bridge), #1768F/1716 (Peers Creek Pit, Coquihalla River at mouth of Peers Creek), and #1707/2418 (Teague Pit, near Yale)

2000-360	John Dewhirst	INS	AIA for proposed development at 2684 Selwyn Road, located in Langford
2000-361	Monty Mitchell	INS	AIA of International Forest Products Ltd.'s forestry operations within Blocks Y 300 A, B, C, C205, C206, C208, C209, C210, C211 and C212, situated in Moses Inlet, and Blocks Hp 112 and Hp 113, situated near Hoy Point, Mid-Coast FD
2000-362	Joel Kinzie	INS	Pre- and post-AIAs of Berkley Petrolem Corporation, Impact 2000 Inc, PetroCanada Oil & Gas Ltd, Union Pacific Resource Inc. and other petro chemical companies; oil/gas developments within portions of Prophet River Band and Fort Nelson First Nations' ATTs which do not overlap with other groups, NE BC
2000-363	Wayne French	ALT	Alterations to CMTs within DfSe 001 by Weyerhaeuser Company (West Island Timberlands) forestry operations within TFL 44, Opening 8755, E of Little Nitinat River, South Island FD
2000-364	Keary Walde	INS	AIA of Canadian Natural Resources Ltd.'s oil/gas developments within the ATT of the Fort Nelson First Nation, as delineated on NTS map sheets 94 P/7, 8, 10, 14, 15, & 16, NE BC
2000-365	Rob Somers	ALT	Alterations to DcRt 016/070 by removal and relocation of a single BC Hy dro power pole in front of Lots 21 and 22, Victoria Land District, Plan 1048, on King George Terrace near the SW end of McNeill Bay, District of Oak Bay
2000-366	John Dewhirst	INS	AIA for Lot 2, Plan 6220, Section 44, Victoria District, located at 3931 Cadboro Bay Road, Victoria
2000-367	Martin Handly	INS	AIA for proposed Cox Station Quarry within Part NE ¼, TWP 20, including portions of LS 15 - Section 16, LS 16 - Section 16, LS 1 - Section 21, LS 4 - Section 22, and NW Portion of Section 15, NWD, on Sumas Mountain near Abbotsford
2000-368	Keary Walde	INS	AIA of Anderson Exploration, Anderson Resources, and Anderson Oil & Gas Company's oil/gas developments within the ATT of the Fort Nelson First Nation, as delineated on 000 NTS map sheets 94 P/1, 2, 3, & 8, NE BC
2000-369	Stan Copp	INS	AIA for proposed upgrading of MoF recreational campsites located at six localities on the Ashnola River, Penticton FD
2000-370	Keary Walde	INS	AIA of Penn West Petroleum Ltd.'s oil/gas developments within the ATT of the Fort Nelson First Nation, as delineated on NTS map sheets 94 P/1-16, NE BC
2000-371	Hans Kolman	ALT	Alterations to DhQj 030 by activities associated with subdivision layout within part of Lot A, Plan NEP 21758 and Parcel 2 (Ref Plan 83772I) of Parcel 1 (exp Plan 23790D), and Lot A, Plan NEP 21758, District Lot 237, Kootenay District, located on the N side of the Columbia River, E of Norns Creek opposite Castlegar
2000-372	Clinton Coates	INS	AIA of Ainsworth Lumber Co. (Savona Division) forestry operations within FL A18690, Kamloops FD
2000-373	Monty Mitchell	INS	AIA of International Forest Products Ltd.'s forestry operations in the vicin ity of the N part of King Island Inlet and Frenchman Creek, Mid-Coast FD
2000-374	Monty Mitchell	INS	AIA of International Forest Products (Helifor Division) forestry operations within Blocks 510 HB, 510 HA, 511 HB, 511 HA, 512 H, DB 2, DB 3H, DB 4H, DB 5H, H 3, H 4A and H 4B, situated in the vicinity of South Bentinck Arm, Mid-Coast FD
2000-375	Ian Wilson	INS	Site inventory and assessment of specific areas surrounding BC Hydro Ltd.'s Coquitlam Lake and Buntzen Lake reservoirs, and the Coquitlam River to its confluence with the Fraser River, N & E of Port Moody
2000-376	Cameron Simpson	ALT	Alterations to CMTs A1, A2, A3 within GhSo 023 by Houston Forest Products Company's forestry operations for Road Permit R06340, Sec 16 (FL A16827), along the E shore of Morrison Lake, Morice FD

2000-377	Shawn Hedges	ALT	Alterations to GaTn 003, GaTn 004 and GaTn 006, and CMTs 76, 130, 134, 143, 144, 201, 219, 233, 301, 305, 307, and 491 within GaTm 005, and CMT 2 within GaTn 005 by forestry operations in TSL A62498, Kennedy Island, North Coast FD
2000-378	Gary Hackett	ALT	Alterations to DhRs 001 by excavation of post-holes for fence installation and juniper bush removal on several properties between 1314 and 1348 SW Marine Drive, inclusive, Plan 2067, DL 318, NWD, Vancouver
2000-379	Martin Handly	INV	Systematic data recovery at DgQq 025, E of Midway overlooking Hwy 3 and Boundary Creek, immediately E of proposed BC Gas Southern Cross ing Pipeline r/w
2000-380	Ian Wilson	INS	Site inventory and AIA for a proposed 6-lot residential subdivision within Parcel B (DD 131849F and PIB6226) and Lot 19, Plan 8330, except Plans 9492 and 14882, DL 438, KDYD, on the S bank of the Thompson River near Spences Bridge, vicinity of archaeological site EcRi 056
2000-381	Keary Walde	INS	AIA of MoF forestry operations within Blocks 1 and 2, TSA A65298, Map Sheet 94 A/9, located NE of the community of Doig River, Fort St. John FD
2000-382	Monty Mitchell	INS	AIA of International Forest Products Ltd.'s forestry operations within FL A16850, Blocks SB 102A, SB 104, SB 108, SB 120, and SB 121, situated in the vicinity of Hardy Inlet, Mid-Coast FD
2000-383	Chris Engisch	INS	AIA of Western Forest Products Ltd.'s forestry operations on Roderick, Pooley and Yeo Islands, on the Don Peninsula near Tom Bay, and within the Ingram operations in the vicinity of Spiller Inlet, Mid Coast FD
2000-384	Beth Hrychuk	INS	AIA of Central Alberta Midstream proposed Wapiti West Gathering Pipe line, from existing BP Canada Energy wellsite d-13-G/93-I-9, E to the BC-Alberta border
2000-385	Ian Franck	INS	AIA for Okanagan Nation Alliance and Department of Fisheries & Oceans proposed McIntyre Habitat Channel Complex (Salmon Spawning Channel), located on the E side of the Okanagan River, N of Oliver
2000-386	Andrew Mason	INS	AIA for expansion of the Xá:ytem Longhouse near Mission
2000-387	Doug Brown	INS	AIA of MoF proposed upgrade and expansion of the Skwellepil Forest Service Campground, located at the mouth of Skwellepil Creek on the W shore of Chehalis Lake, Chilliwack FD
2000-388	Doug Brown	INS	AIA for MoTH proposed expansion of the Morris Valley Road gravel pit, located N of Morris Valley Road approximately 6 km N of Harrison Mills
2000-389	Ian Wilson	INS	AIA for proposed placement of a house trailer on Rem. DL 9, Nanaimo Land District, near the S bank of the Little Qualicum River near Qualicum Beach
2000-390	Christopher Causton	ALT	Alterations to DcRt 016 by removal and relocation of a single BC Hydro power pole fronting 456 Beach Drive (at Transit Road), near the E end of McNeill Bay, District of Oak Bay
2000-391	Morley Eldridge	INS	Archaeological Inventory of selected portions of the Fort Nelson FD
2000-392	Jeff Bailey	INS	AIA for new MoTH bridge crossing of the Cottonwood River, realignment of Hwy 97, and ancillary developments located approximately 13 km N of the Barkerville Hwy 26 Junction in Quesnel
2000-393	Karen Brady	INS	AIA for MoTH (Cariboo District) proposed new r/w for an approximately 900-m-long unstable portion of Young Road affected by river bank erosion; project area located on the N bank of the Chilcotin River near its confluence with the Chilko River, in the vicinity of Alexis Creek, W of Williams Lake
2000-394	Robert Howie	ALT	Alterations to CMTs 1 to 29, 43A, 66, 67, J9, J10, O-2 to O-13, and O-32 to O-35 within DlSr 052; CMTs O-14 to O-31, 44 to 62, and J1 to J7 within DlSr 053, both located in Block K36; CMTs J1 to J6, O-1 to O-46, S1 to S41, and C1 to C65 within DlSr 054, located in Block SE14; CMTs 2, 3, 5 to 7, 10 to 47, 50 to 52, and 54 within DlSs 040, located in Block H13, by C

			Mokko Manufacturing Ltd.'s forestry operations in FL A34814, in the Espinosa Inlet and Port Eliza Inlet areas of the Campbell River FD
2000-395	Rob Lackowicz	INS	AIA for MoTH Norwegian Pit #2657, Blk. A, DL 3394, Kootenay District, located E of Midway
2000-396	Robert Howie	ALT	Alterations to CMTs 1 to 10, 12 to 15, 23, 24, 29 to 34, 36, 39, and 41 to 91 within DlSr 049, located in Block SE9; CMTs 1 to 109, 116 to 128, 137 to 156, and 163 within DlSr 050, located in Block SE12, and CMTs O-1 to O-21, O-24 to O-31, S-1 to S-20, S-22 to S-24, S-27 to S-35, C-1 to C-19, C-21, C-26 to C-79, and J-1 to J-4 within DlSr-051, located in Block SE13, by Hecate Logging Ltd. forestry operations in FL A19236, on the W side of Espinosa Inlet near Newton Cove, Campbell River FD
2000-397	Robert Clark	ALT	Alterations to CMTs within FjSg 018 by MoF/SBFEP forestry operations located approximately 1 km NE of Lucas Lake, Map Reference #093F055, Vanderhoof FD
2000-398	Andrew Mason	INS	AIA of a 15 m-wide foreshore zone at 16414 Carrs Landing Road, vicinity of EaQu 044, on the E side of Okanagan Lake
2000-399	Phil Carruthers	ALT	Alterations to CMTs within GgSr 001 by Skeena Cellulose forestry operations in FL A16829, CP 059, Block 1, located W of the confluence of Blunt and Harold Price creeks, Bulkley/Cassiar FD
2000-400	David Southgate	ALT	Alterations to GiSq 004 by proposed construction of an access road off the Nilkitkwa FSR to the Department of Fisheries and Oceans' Babine Fish Weir Camp and Hatchery, located on the E side of the Babine River, N of Smithers
2000-401	Robert Howie	ALT	Alterations CMTs 1-13 within DISr 032, located in Block SE6 on the W side of Espinosa Inlet, and CMTs 1-14, 18-47, 55-126 and 129-159 within DISr 035, located in Block W8 on the E side of Port Eliza Inlet, by Hecate Logging Ltd.'s forestry operations in FL A19236, Campbell River FD
2000-402	Doug Brown	INS	AIA of Chehalis Indian Band's forestry operations within Schedule B, Block 3a and Block 2, WL W0089, in the Weaver Creek watershed, Chilliwack FD
2000-403	Bjorn Simonsen	INS	AIA of Shushartie Log Sales Ltd.'s forestry operations within the Seymour Inlet, Nugent Sound and Belize Inlet areas

LECTURES

ASBC NANAIMO BRANCH 2001 LECTURE SERIES

The Nanaimo Branch of the Archaeological Society of British Columbia holds monthly lectures on Friday evenings from 7:00 to 9:00 pm. They are held at Malaspina University College in Building 356, Room 111. Lectures are free to members and cost \$5 for non-members. For more information contact Pat Knowles at dgveng2@island.net.

April 6th Al Mackie: A lecture related to the Kwaday Dän Sinchi discovery.

Al Mackie is a Project Officer at the Archaeology Branch in Victoria.

May 11th Marcia Crosby: "Walking the Land with the 'Experts': Aboriginal People and Academics" The focus of the lecture is on the relationship that the Gitanyow and the Gitksan people had with the writers of "official" textual history, and how they have used outside interests to further their own position as a Nation. Marcia Crosby is of Tsimshian and Haida ancestry, and has a BA in Fine Arts and Literature, and an MA in Cultural History. She is an instructor in the First Nations Studies Department at Malaspina University-College.

WHO'S WHO AT THE ARCHAEOLOGY BRANCH

By Ray Kenny

The Archaeology Branch's mandate is to encourage and facilitate the protection and conservation of the province's archaeological resources under authority of the Heritage Conservation Act (HCA). The branch carries out its mandate through the Planning & Assessment, Inventory & Mapping, and Treaty Negotiations Support programs.

The Acting Director of the Archaeology Branch is Justine Batten. She provides management direction to branch staff and policy advice to the Ministry executive.

The **Administrative Staff** provide support for contract management, leave recording, personnel management, word processing, filing systems, purchasing etc. There are three positions on the Administrative Staff:

Office Manager:
Administrative Clerk:
Acting Branch Receptionist:

Beth Dangerfield 356-1049

Alan Riches 356-1045

Kathryn Graham 356-0882

Beth Dangerfield 356-1049

Branch Fax Number 387-4420

The objective of the **Planning and Assessment** program is to facilitate the protection and conservation of archaeological sites in the context of development projects and other competing land uses. This objective is largely achieved through participation project reviews under the province's Environmental Assessment Act (EAA), integrated resource planning initiatives, and administration of a permit system that regulates activities on sites protected under the HCA. Project Officers review permit applications, make recommendations on permit issuance, and monitor permitted projects; provide archaeological input to the development of provincial land and resource management plans (LRMPs); and represent the Ministry on project review committees established under the EAA. Planning and Assessment staff include:

Manager:	Ray Kenny	356-1438		
Heritage Resource Specialists:	Steven Acheson	356-1439	Doug Glaum	356-1054
	Dave Hutchcroft	387-1812	Al Mackie	356-2080
	Jim Pike	356-1199	Bob Powell	356-1039
	Dave Suttill	356-1050		

The objective of the **Inventory and Mapping** program is to provide archaeological resource data in support of provincial land allocation and resource management decision-making, Aboriginal treaty negotiations, and academic research. This objective is largely achieved through maintenance of a registry of protected sites, a central computer-based site inventory, and the development of archaeological maps generated from predictive models. Inventory and Mapping staff include:

Manager:	Jack Foster	356-1055		
Coordinator, Provincial				
Heritage Register:	John McMurdo	356-1053		
Project Officers:	Barb Rimmer	387-6097	Ian Whitbread	356-1052
	Chris Spicer	387-1914	(1 position vacar	nt)

Treaty Negotiations Support: The objective of this function is to provide support to negotiators with respect to the culture and heritage components of treaty negotiations. This objective is largely achieved by providing technical and policy advice for provincial treaty negotiations.

Senior Policy Analyst: Olga Klimko 356-2194

Ray Kenny is the Manager of Planning and Assessment at the B.C. Archaeology Branch in Victoria.

CONFERENCES 2001

March 29-31 54th Annual Meeting of the Northwest Anthropological Conference,

Northwest Anthropologists: Making an Impact

Moscow, Idaho, USA

The department of Sociology/Anthropology/Justice Studies and the Alfred W. Bowers Laboratory of Anthropology at the University of Idaho are hosting the 54th Annual Meeting of the Northwest Anthropological Conference. This year's conference theme highlights the impact that Northwest anthropologists have had on the field and the community. Retired Northwest anthropologists Dr. Grover Krantz and Dr. Roderick Sprague will be honoured, both of whom have achieved widespread acclaim for their contributions.

Contact: Abstracts, registration forms, student competition papers, and exhibitor requests should be addressed to the Northwest Anthropological Conference, Donald Tyler, Co-Chair, Dept. of Soc/Anth/JS, University of Idaho, PO Box 441110, Moscow, ID, 83844-1110; tel. (208) 885-6751; fax (208) 885-2034; email: dtyler@uidaho.edu; Web page: www.its.uidaho.edu/nwconference/. Requests for information may be addressed to Laura Putsche, Co-Chair, same address as above; tel. (208) 885-6189; email: putsche@uidaho.edu.

April 5-7 Stó:lō Nation Conference, Mission, BC. For particulars see page 10.

April 18-22 Society for American Archaeology (SAA), 66th Annual Meeting

New Orleans, Louisiana, USA

The 66th Annual Meeting will include symposia, interactive forums, roundtable luncheons, workshops, and excursions. The complete preliminary program is posted on their Web site. Online registration is also available, and advance registration forms must be received no later than March 19th, 2001.

Contact: SAA Headquarters, 900 Second St. NE #12, Washington DC, 20002-3557, USA; tel. (202) 789-8200; fax (202) 789-0284; email: meetings@saa.org; Web site: www.saa.org.

April 21 Underwater Archaeological Society of British Columbia (UASBC) and Vancouver Maritime

Museum, Shipwrecks 2001 - A Sub-sea Odyssey - Dive Technology and Archaeology Vancouver, BC

The keynote speaker at the conference dinner is Jim Delgado (*Titanic* and the *Carpathia*: Images from the Deep).

Contact: The UASBC, c/o The Vancouver Maritime Museum, 1905 Ogden Avenue, Vancouver, BC, V6J 1A3; tel. (604) 980-0354; email: uasbc@uasbc.com; Web site: www.uasbc.com.

May 9-13 Canadian Archaeological Association (CAA), 34th Annual Meeting

Banff, Alberta

No particular theme has been set for the conference. Some session titles and abstracts are already posted on the Web site. The conference will also include professional and technical workshops on lithics, ceramics, and field conservation.

Contact: Lesley Nicholls, Conference Coordinator, CAA 2001, Department of Archaeology, University of Calgary, Calgary, Alberta, T2N 1N4; tel. (403) 220-7131; fax (403) 282-9567; email: nicholls@ucalgary.ca; Web site: www.canadianarchaeology.com.



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