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Wapato and Katzie First Nation
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Cover Page

Terry Spurgeon in a wapato patch at the Allouette River. Photo courtesy T. Spurgeon.

WAPATO IN KATZIE TRADITIONAL TERRITORY

by Terry Spurgeon

The following is the first of several articles that are based on Terry Spurgeon's MA thesis, "Wapato *(Sagittaria latifolia)* in Katzie Traditional Territory," completed in 2001 in the Department of Archaeology at Simon Fraser University.

Introduction

For the past several years the author has been studying wapato (*Sagittaria latifolia* Willdenow; Alismataceae), a tuberous starchy carbohydrate food plant. Wapato is frequently mentioned in ethnographies and archaeological reports concerned with the Katzie First Nation of the Fraser Valley region. First mentioned in the *Fort Langley Journals, 1827–30* (Maclachlan 1998), and subsequently in local ethnographies (Suttles 1955, 1987a*) and archaeological reports (Patenaude 1985*), the archaeological and historic context of wapato has neither been addressed critically, nor has its archaeological preservation potential been assessed. While it has been studied in detail by botanists (Marburger 1993*) and to a lesser extent by archaeologists (Darby 1996; Hather 1993*), wapato in Katzie territory is not well understood.

In order to address the shortcomings in understanding, the research focused on the following four goals:

1. to present a detailed description of the ecology of wapato;
2. to critically review ethnographies and historical sources;
3. to char wapato tubers to evaluate the potential for detecting archaeological remains;
4. to construct a model for the archaeological presence of wapato.

Due to space constraints this article addresses the more important, but not all, aspects of the first goal, including a look at linguistics, while the latter three goals will be dealt with in future articles. In the interest of brevity many useful references are not included in this article (indicated by *); of course, for more detailed information, the reader may refer to the MA thesis.

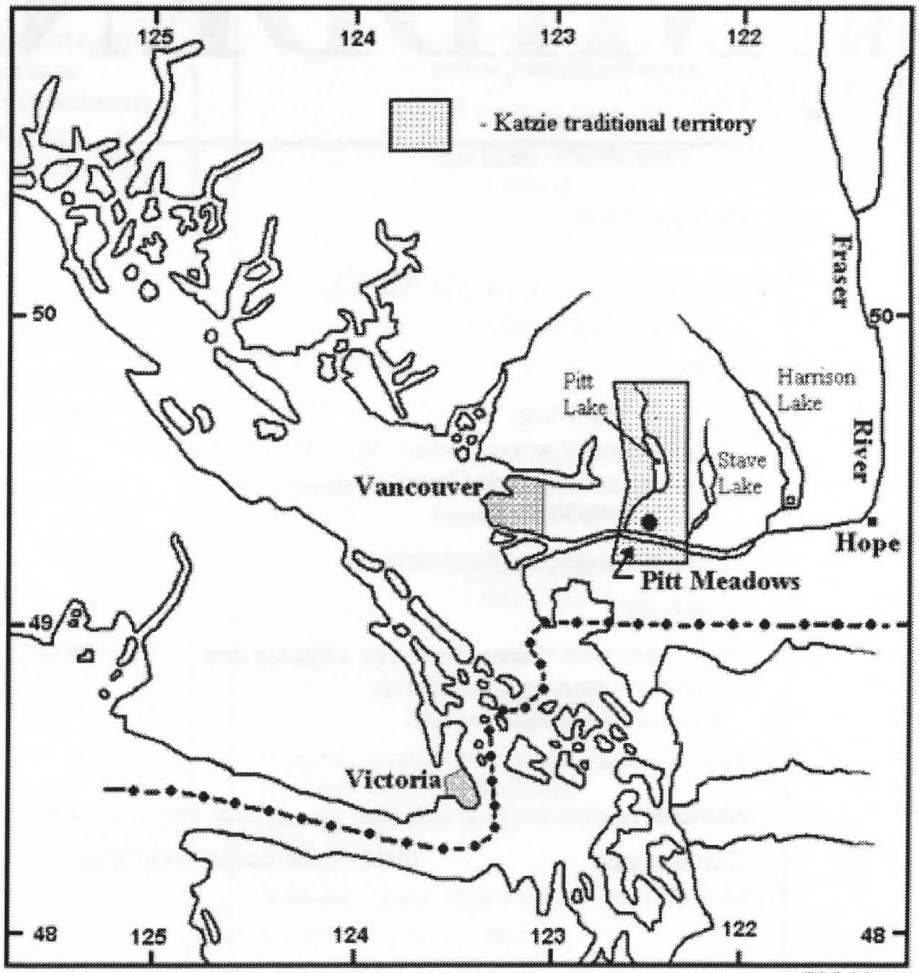

Figure 1. Katzie traditional territory.

There are several problems affecting the understanding of wapato. These include: (1) the paucity of comparative paleobotanical materials; (2) the potential presence of research, informant, and gender bias in ethnographies; (3) the considerable passage of time from first contact to the recording of ethnographic data; (4) the relative lack of archaeological survey and excavation for the area of concern; (5) the potential for bias and misunderstanding of historical information pertaining to First Nations people; and (6) the early diffusion of the potato (*Solanum tuberosum*) into the area (Suttles 1987b*) and the consequent potential for confusion.

The Study Area

The geographic focus of this research are Katzie traditional territory (Figure 1) and the wapato patches of the Pitt Polder/ Lowland area (Figure 2). Katzie territory encompasses parts of Port Coquitlam and Coquitlam west of the Pitt River, as well as portions of Surrey and Langley adjacent to the Fraser River. The area as shown in Figure 1 extends east from Websters Corner and north to the upper reaches of Pitt Lake and the Pitt River. Fort Langley

is specifically included because of its proximity, early post-contact economic importance, and the fact that frequent mention is made of the Katzie and wapato in the *Fort Langley Journals, 1827-30* (Maclachlan 1998). Notwithstanding, a focus encompassing the whole Fraser Valley region is relevant, as wapato was and is present throughout the wet lowlands of the region. The UBC Herbarium Database <http://herbarium.botany.ubc.ca/herbarium_data/info.html> lists wapato and other plants collected over many decades in the Fraser Valley region, confirming the widespread presence of wapato. Regarding the whole Fraser Valley as a wetland with its many seasonally flooded lowlands, fens, marshes, swamps, bogs, estuaries, and waterway margins is consistent with accepted wetland definitions (see Nicholas 1998:721).

Terry Spurgeon

Figure 3. Wapato plant.

The Katzie

The Katzie are included in the lower Fraser River Stó:lō sub-group and are one of the Central Coast group of Coast Salish peoples (Suttles 1990:453). Katzie traditional territory, approximately 50 km up the Fraser River from the ocean, is located within the Georgia Depression and the Coast Mountain physiographic region. Driver (1998) provides a detailed description of the geology, vegetation, and wildlife of the area. The lowland areas are just a few metres above sea level and prior to the advent of modern diking in 1892 were flooded annually by the Fraser River freshet. Today, low-lying areas are still subject to seasonal and daily water-level fluctuations. The daily tides, which ebb and flow in the regionally dominant drainages of the Fraser and Pitt rivers, affect the lower reaches of the Alouette River and Widgeon Creek drainages and Pitt Lake. During the middle-Holocene, as the Fraser delta migrated southwestwards, the Pitt Polder area was part of a large estuary. Tidal Pitt Lake is located in a former fiord, long cut off from the ocean by sea level change. Daily tidal reversals continue to build a delta front that presently extends ca. 6 km into Pitt Lake (Ashley 1977).

In the past the Katzie utilized the abundant natural resources of the region in an annual round of fishing, hunting, and gathering. Because their traditional territory encompasses a variety of natural settings

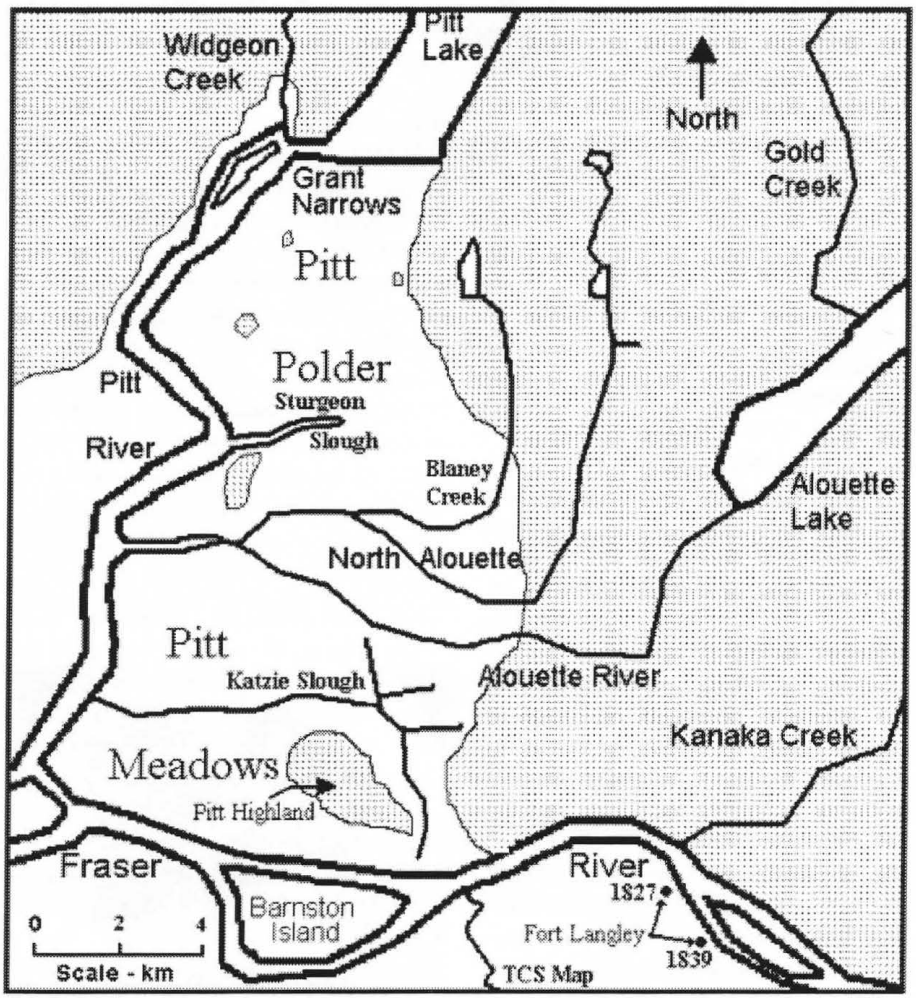

Figure 2. Pitt Polder - Pitt Meadows lowland

the Katzie had ready access to fresh- and saltwater fish, a wide variety of mammals and birds, and a plentiful supply of plant resources. The Fraser River supported predictable migrations of salmon, which entered the local drainages, and other saltwater species such as eulachon and seals, which, in addition to resident sturgeon, were seasonally plentiful throughout the region. These species were all used by the Katzie (Driver and Spurgeon 1998; Suttles 1955*).

Wapato

Wapato *(Sagittaria latifolia)*, also known as arrowhead, arrowleaf, Indian potato, swamp potato, and duck potato, produces starchy tubers, which were an ethnographically known food source for Native groups throughout much of North America. While important nutritionally as a foodstuff, it should be noted that *S. latifolia* and its Asian *relative (S. sagittifolia)* were also used medicinally (Porterfield 1940:47*). Although a few archaeological studies have been undertaken on *S. latifolia* (Darby 1996*), in southwestern British Columbia, where it is documented as an important Aboriginal food source, there have been no archaeological studies.

S. latifolia (Figure 3) is described as a marsh, semi-aquatic, or aquatic herbaceous perennial, with its above-water foliage having leaves of a characteristic arrowhead shape (Marburger 1993;*). There is consensus that wapato is often found in the margins of water bodies at depths less than one metre, commonly in depths of less than half a metre and with pH readings of 5.9 – 8.8 (Marburger 1993:251). It is a member of the Alismataceae or Water Plantain family. Wapato is easily identified by its characteristic arrowhead-shaped leaves, and white three-petalled flowers (Figure 4). The plant produces ovoid tubers 1 to 3 cm in diameter in the substrate of shallow waters (Figure 5). The starchy tubers are storage organs produced from the plant's horizontally creeping underground stems or rhizomes. *S. latifolia* reproduces vegetatively from the tubers and sexually from seeds. The fruits are flattened, beaked achenes (Figure 6). The production of tubers and achenes varies considerably with growing conditions (*ibid*). Widely used today for wetland enhancement, restoration, and creation, this C_3 species tolerates and assimilates high levels of nutrients and heavy metals, and is eaten by insects, waterfowl, mammals, and fish (Marburger 1993*).

S. latifolia is found in both monoecious (bisexual) and dioecious (unisexual) forms (Marburger 1993:249-50*). Monoecious plants bear both male (staminate) and female (pistillate) flowers on the same plant whereas dioecious plants have their male and female sex organs on separate plants. Marburger notes that "dioecious forms are more limited in their ability to reproduce sexually, since outcrossing is obligatory." No attempt was made during the fieldwork to differentiate between the presence or absence of dioecious or monoecious wapato populations.

S. latifolia and *S. sagittifolia* are generally physically similar, the main distinction here being the "New World, Old World" distribution difference. Bailey (1964:130) indicates the beak on the achenes of the latter are four times longer than the achene body. *S. sagittifolia* is also referred to as *S. chinensis* and *S. japonica* in its Chinese and Japanese variants. Consistent with descriptions in Porterfield (1940), I have observed that the tubers of *S. sagittifolia* are more globular than those of the North American native *S. latifolia* which are somewhat flattened equatorially when viewed with the nodal line horizontal. Imported *S. sagittifolia* is available annually from local Asian food markets, especially around the Chinese New Year. They are larger than the local wapato tubers, a characteristic that might be attributed to their cultivation in controlled conditions. The local tubers are growing wild and are usually found in a silty, hard-packed substrate that locally contains an abundance of wood detritus, which appears to distort the tubers as they grow.

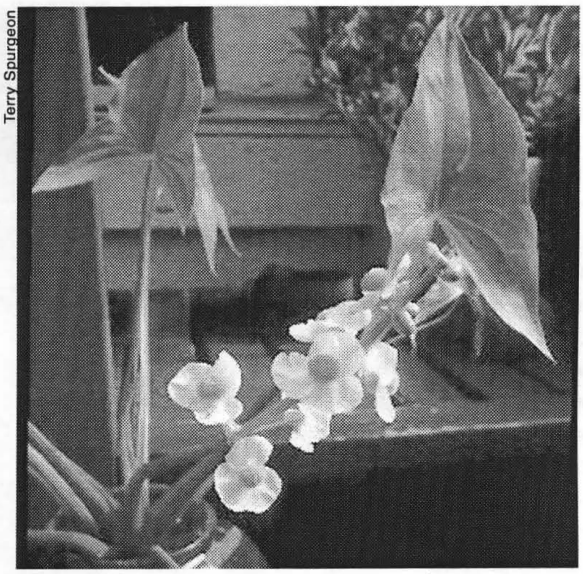
Terry Spurgeon

Figure 4. Wapato is easily identified by its characteristic arrowhead-shaped leaves, and white three-petalled flowers.

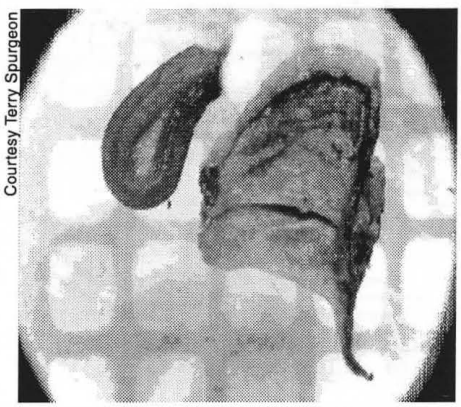
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Figure 6. Wapato achene and embryo

Wapato: Cooking and Nutrition

Mainly a starchy tuber of high water content, wapato provides a ready source of dietary carbohydrate. Cooking is an important factor in wapato nutrition as starch is not readily digested in the human gut without such processing (Galliard 1987:3*). Galliard notes that "because uncooked starch is poorly digested in the human alimentary tract, the main function of the various methods of cooking starchy materials is to convert starch granules to a form that can be attacked readily by the amylolytic enzymes of the digestive system."

Once harvested, wapato tubers could be stored fresh, raw and unwashed, for several months, according to Kuhnlein and Turner (1991:71). Wapato is reported as being eaten raw (Turner 1981:2341), or cooked in hearths or hot ashes and in pits (Haeberlin and Gunther 1930:23*). For the Puget Sound Indians "the principal methods of cooking were boiling with stones, steaming in a pit and roasting by

an open fire" (*ibid*). The authors refer to various kinds of roots and tubers, but do not specifically indicate a cooking method for wapato, instead noting that potatoes were pit-cooked covered with sand. In the Interior area, Annie York, consultant and co-author with Nancy Turner *et al.* (1990:113), describes the pit cooking of large quantities of wapato tubers by placing the tubers in a heated, covered pit. The earth oven or pit oven, dug into the earth, uses a preheated stone cooking element covered by earth and layers of boughs, leaves, and the root food, and then another layer of boughs and finally earth to bake or steam the food (*ibid*). Kuhnlein and Turner (1991:71) state that wapato tubers were "prepared for eating by boiling, or baking in hot ashes, or in underground pits, after which they could be eaten immediately or dried for long-term storage or trading." The Katzie cooked wapato tubers as needed by baking them in hot ashes, according to Suttles (1955:27).

Wapato, when eaten raw is reported as having an unpleasant or bitter taste. There are many modern recipes available for a variety of wapato dishes. When cooked it resembles potatoes in taste and texture. Darby (1996:69) reports it as having a flavour similar to corn when roasted, and that roasting is more effective than boiling in eliminating the bitter taste.

Speth and Spielman (1983) point out the importance of carbohydrates in hunter-gatherer diets, particularly during lean periods when meat lacks sufficient fat content. This lack leads to several nutritional problems, among them elevated metabolic rates with correspondingly higher caloric needs and deficiencies in essential fatty acids (*ibid*). The authors indicate that carbohydrates are seen as an excellent substitute for the missing fats, with hunter-gatherer groups resorting to trade and limited cultivation activities to acquire needed carbohydrates. Wapato is potentially one such source of carbohydrate and was traded and sought after by groups not having local supplies of the tuber. Wapato nutritional values and content can be summarized as ca. 66% water, 19.5% starch, plus among other things lesser amounts of protein, calcium, iron, magnesium, and zinc.

Katzie Wapato Use and Trade

The Katzie and their neighbours maintained relationships based on the growing and trade of wapato. Katzie wapato harvesting and the associated pre-clearing and tending of wapato patches raises the issue of horticultural behaviour in complex hunter-gatherer societies. Indeed, limited cultivation is noted by Speth and Spielman (1983:20) as a buffering strategy by hunter-gatherers to address the lack of fat in protein diets during winter and spring. Both Fladmark (1986:106) and Hayden (1990:40) note the emergence of rudimentary horticulture or plant management on the Northwest Coast. Hayden *(ibid.)* particularly associates this behaviour with the desirability of carbohydrates in a protein-rich environment.

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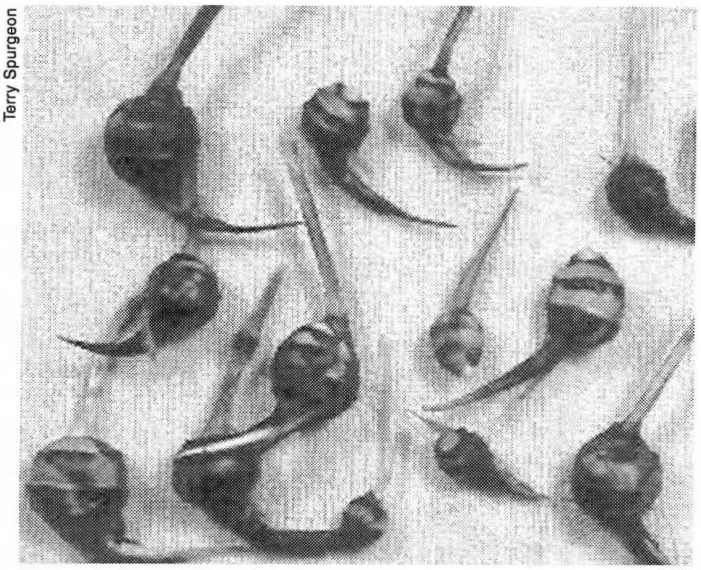

Figure 5. Wapato's ovoid tubers 1 to 3 cm in diameter.

A variety of hunting, fishing, and gathering activities occurred throughout the year. During the rainy, cold winter period the people stayed close to the main village, engaging in local food procurement activities not requiring extensive travel. In October the wapato harvest began in Katzie territory and continued through November (Suttles 1955:27). Wapato patches, either owned by families or the tribe, were located on the west bank of the Pitt River around Siwash Island, and on the flats north of Sturgeon slough, with a shared patch located near the head of Sturgeon Slough *(ibid).* Some reports describe wapato harvesters wading in water and dislodging the tubers with their toes, or using canoes and pulling the plants free from the substrate (Kuhnlein and Turner 1991:71*). It is not too great a leap to speculate that specialized tools similar to camas (*Camas quamash)* digging sticks (Kuhnlein and Turner 1991:86*) could have been used to augment the foregoing methods, although such perishable tools are not likely to be preserved archaeologically. The eventual cultivation of introduced potatoes eliminated the requirement to enter water during the cooler months of the year, a necessary requirement to harvest wapato, and was made easier through the introduction of metal tools acquired in trade.

Whether the movement of wapato in the Fraser River region was associated solely with trade or also involved free access to wapato for some outsiders is unclear. Acquisition by coastal and interior peoples of wapato from the Fraser Valley and specifically the Katzie area was common (Suttles 1955:26*). The Straits and Halkomelem Salish people on Vancouver Island acquired wapato from the Katzie, as did the Squamish (Kuhnlein and Turner 1991:70). Turner (1997:160) mentions the Lower Nlaka'pamux of the Spuzzum area acquiring wapato from the Halkomelem people of the Fraser Valley. Katzie territory is reported as having patches that were shared with annual fall visitors. In one instance a large number of people congregated for the harvest at the confluence of the Pitt and Fraser rivers (Maclachlan 1998:40).

Linguistics Background

Halkomelem, the Native language spoken by the Katzie, is a member of the Salishan language family. Halkomelem is a Central Salish sub-family language existing as a "long continuum of intergrading dialects showing considerable diversity, but with mutual intelligibility throughout" (Thompson and Kinkade 1990:37). There

Table 1

WAPATO GLOSSES

(see Spurgeon (2001) for the references used in the table)

1. wapato - Chinook trade jargon; also known as *Sagittaria latifolia*, Indian potato, arrowleaf, duck potato, swamp potato, wapatoo; also reported as wap'to (Le Jeune 1924).
2. xʷaq'ʷoɬʔs —a distinct word for *Sagittaria latifolia* used by Katzie (Suttles 1955:27).
3. sqɛ́wθ —what visiting tribes to Katzie area called wapato (Suttles 1955:27).
4. scous or skous —Halkomelem for wapato or *S. latifolia* as recorded by Duff (1952:73).
5. skä́us —Northern Straits, Halkomelem, Nooksack word for tuber (Suttles 1987a:142).
6. sqéws —Lummi (Suttles 1987a:144).
7. sqáwc —Samish, Klallam, and Northern Puget Sound (Lushootseed) (Suttles 1987a:144).
8. skáus or skáwec —Southern Straits, Klallam, and Samish (Suttles 1987a:143).
9. s-qawc —Squamish for potato (Kuipers 1970:65).
10. sqaûc —Squamish for potato; Cw. sqɛ́wθ wapato, kows, potato; CdA s-qigwc "wild potato" (Kuipers 1967:295).
11. s-qawc —Mainland Comox for spud, potato (Davis 1968:84).
12. spiəqoɬ'c —Puget Sound Salish (Suttles 1987a:142*); He notes likely an error.
13. spiəqol'c —potato in Puget Sound dialects to south, old word for *Sagittaria* (Suttles 1987a:143*); probably in error.
14. skawísəl'ɬ —derivative word for the whole *Sagittaria* plant (Suttles 1987a:143).
15. s.píqʷuc or s.páyqʷuc —Puget Salish for potato; arrowhead plant, wapato (Hess 1976:340). – s.píʔqʷuc – s.pqʷúc – s.píqʷulc – s.píqʷúc —informant variants (Hess 1976:xiv).
16. spɬqɔ́ɑc —Twana for arrowhead or wápətu (Elmendorf 1960).
17. q'ʷa•/q'ʷúl's or q'ʷə•/q'ʷúl's—Thompson (Nlaka'pamux) Interior Salish for *S. latifolia* (Turner *et al.* 1990); also Secwepemc (Shuswap)(Turner, personal communication 2001).ckwa/kwalul's or xkʷalkʷal-ul's —"opaque eyeball" Secwepemc (Turner, personal communication 2001).
18. s-qawc —Lillooet (van Eijk 1997:246).
19. sqigʷc —Coeur d'Alene from qigʷ "dig roots" reconstructed as s-qawc (Kuipers 1970:65).
20. qa.wac —Nootka for potato (Sapir and Swadesh 1939:292).
21. skáwəs —Nootka word for potato (Suttles 1987a:143 from Morris Swadesh); in error.
22. skow-shīt —Haida word for potato (Dawson 1880:113B in Suttles 1987a:143).
23. čwa —Klamath for root (wild potato or *S. latifolia*) and potato (Barker 1963:80, 524-5).
24. ma'mptu —Tualatin branch of Kalapuyan word for *Sagittaria latifolia* (Zenk 1976:85 in Darby 1996:63).
25. mámpDu —Tualatin or Wappato Lake dialect of Kalapuya for wild potato (Jacobs 1945).
26. páapa —Lake Miwok (Penutian) for potato (Callaghan 1965).
27. wáala —Lake Miwok (Penutian) for Indian Potato (*Sagittaria latifolia)*(Callaghan 1965).
28. wakxa't —Wishram word for wapato (Spier and Sapir 1930:183 in Darby 1996:66).
29. tuk-hát or tuḱ-hut —Chinook for "wappatoo root" (Gibbs 1863).
30. ká·wats —Quileute for potatoes (from Chinook Jargon), (Powell and Woodruff 1976).
31. t'sí·xak —Quileute for root (edible), (Powell and Woodruff 1976).

are three dialects, referred to as Chilliwack, Musqueam, and Cowichan by Thompson and Kinkade (1990:35), and frequently as Upriver, Downriver, and Island dialects (Suttles 1990:453-454; *). The three dialect divisions are more or less in consonance with cultural and ethnographic divisions presented by a variety of researchers. Figure 7 shows the Salishan languages of the regions adjacent to the Fraser Valley study area, plus the three-part dialect division of the Halkomelem language.

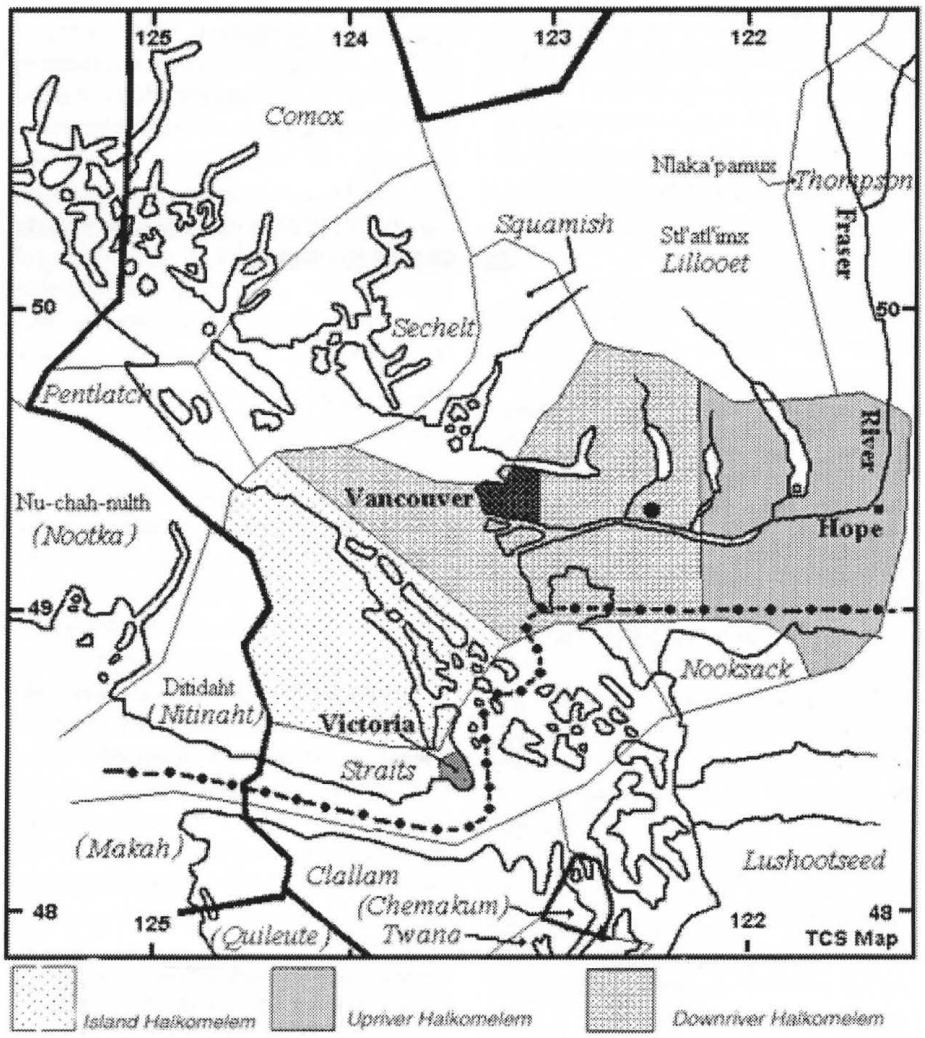

Figure 7. Salishan languages, Halkomelem dialects. After Suttles 1990:454; Thompson and Kinkade 1990; Gerdts 1977. Parenthesis around a name denotes a non-Salishan language.

Wapato Words

Table 1 is a shortened listing of words for *S. latifolia* and *Solanum tuberosum* in various Northwest Coast Native languages. The table provides an indication of the potential value that linguistics study has to further archaeological research focused on wapato. In the following much abbreviated commentary the number(s) enclosed in square brackets [#] correspond(s) to the number given each word listed in Table 1.

Wapato [1] is the Chinook Jargon trade language word for potato. This Pidgin language was used along the coast from the California/Oregon border to the Alaskan Panhandle at least since the time of contact with Europeans. Chinook Jargon, which has vocabulary accretions from indigenous Native languages of the area, as well as French and English, should not be confused with Native American Chinookan languages (Thompson and Kinkade 1990:41).

It is not always clear from the literature whether wapato refers specifically to *Sagittaria latifolia* or *Solanum tuberosum*—the domesticated Irish or white potato. Today, it is generally conceded to refer to both, the latter having more or less replaced the former after its early introduction to the region (Suttles 1987a). Brown (1868:379), referring to "wappattoo" *(S. sagittifolia)*, states, "Since the introduction of the potato the use of the roots of the *Sagittaria* has much declined, and the name is now transferred to the potato." Suttles (1987a:138-9) suggests several possible early sources for *S. tuberosum* on the Northwest Coast, all attributable to the presence of Russian, English, and Spanish maritime explorers prior to the close of the eighteenth century and to fur traders early in the nineteenth century.

The existence of distinctively separate words xʷaq'ʷoɬʔs and q'ʷaʷ/q'ʷúl's or q'ʷəʷ/q'ʷúl's [2 and 17] for wapato in the Thompson, Secwepemc, and Katzie areas may be significant as indicators of areas where *S. latifolia* grew or was traded, and as words that existed before the more common *scous* or *skous* [4] variants and *wapato* [1] terminologies arrived.

There are numerous words that appear similar to sqɛ́wθ [3] and include all of [4–11] and [18–21]. These encompass an area that includes Howe Sound, the Fraser Valley, Vancouver Island, Puget Sound and the Gulf Islands, Lillooet, and Northern Idaho. Kuipers (1970:65) notes an etymological similarity for [9] and [19], which involves Squamish and Coeur D'Alene, both Salish languages separated by some distance. Hess (1979) has reported the wavelike nature of the distribution of Native words for *deer* in much of the same territory in which *wapato* words based on sqɛ́wθ [3] variants indicate similar patterning. He suggests that Halkomelem, as a centrally located Central Coast Salish language, served as the originator for the spread of the different words for *deer* (*ibid*:10).

The role of Halkomelem speaking people of the lower Fraser in up- and downriver trade has already been noted, and this is consistent with the middlemen role speculated upon by Hess (1979:16) when he suggests that Halkomelem may have been "quite widely known—perhaps as an incipient pidgin, parallel to the case of Chinook along the lower Columbia River." A similar development for *wapato* words should not be surprising for the Halkomelem dialects and those other lan-

guages in the Gulf of Georgia and Puget Sound areas immediately adjacent to the Halkomelem speaking region.

The use of the word *wapato* seems to be related to trade and was generally applied to both *Sagittaria latifolia* and *Solanum tuberosum*, particularly in more recent times. Given the nature of Chinook trade language, trade would have facilitated cross-language communication and the associated passage of Native language variants between adjacent dialects and close language neighbours. The movement of wapato throughout the Halkomelem area down the Fraser River and across the Gulf of Georgia, up the Fraser River to Stl'atl'mix (Lillooet) and Nlaka'pamux (Thompson) country, and into Howe Sound to Squamish is evident in the word morphology similarities. For more distant language groups, little word morphology similarity is evident and this may be a function of Chinook trade jargon usage and limited contact due to distance from the Fraser Valley. There is no similarity in word morphology between the languages associated with the Fraser River and those of the Columbia River groups [24] and [25], the other well known *S. latifolia* growing and trade area. The lack of similarity suggests differing Native language origins for *wapato* words for these distinct areas, a problem made more difficult to resolve with the advent of the Chinook trade jargon and the rapid spread and common use of the term "wapato."

Quileute [30] and NuuChahNulth (Nootka) [20] and [21] words for potato appear similar. Suttles (1987a) indicates the Nootka word [21] is in error, but the similarity of the Nootka word [20] to the Lushootseed word [7], the Southern Straits [8], Squamish [9], and Mainland Comox [11] words is apparent. All of these languages are immediately adjacent to Halkomelem, and in the case of Nootka perhaps provided the language link to Quileute via the Olympic Peninsula and the Makah, or alternatively the adjacency of Lushootseed and Straits may have influenced the Quileute usage.

The list of Native language words for *wapato* is incomplete, with entries from other Northwest Coast languages not yet included. Language changes such as neologisms, loans, and coinages which have impacted Native languages since contact must also be considered. The extinction of some languages, the great reduction in the number of speakers for others, and the ever changing nature of these indigenous languages in adapting to new circumstances may inevitably have some bearing on the matter at hand. Indeed, the terminology used by recorders and researchers in referring to wapato, potatoes, and scientific nomenclature has some relevance too.

Conclusion

In the foregoing, the botanical and dietary properties of wapato and its use and spread among the Native peoples, particularly the Katzie, was discussed. In future issues of *The Midden,* a critical and contextual review of the environmental, ethnographic, and historical information about wapato will be presented. Included will be information on where it grows, and finding and harvesting wapato. Based on the wapato information already presented, plus extensive fieldwork and a detailed literature review, a strong argument emerges about the need for contextual analysis and critical review of all information sources.

Former ASBC president Terry Spurgeon, a retired aviation safety inspector, recently completed his MA in archaeology at Simon Fraser University.

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DEBITAGE

The Canadian Archaeological Association (CAA) and the **Ontario Archaeological Society** recently collaborated in the electronic publication of a collection of papers presented at the 33rd annual meeting of the CAA in Ottawa, 2000.

The papers cover a wide range of archaeological topics from around the world, and include many of the colour illustrations used during the conference presentations. The publications can be downloaded off the CAA Web site, <www.canadianarchaeology.com>.

For useful information to those working in the field of archaeology and cultural resource management, visit the Web site <www.archaeologyfieldwork.com>. It offers **employment listings in archaeology** and related disciplines and you can post your c.v.

There are announcements about upcoming conferences, meetings, and training. Volunteer opportunities and field schools are posted. There are lists of scholarships, fellowships, and other opportunities for archaeology students. The Web site also includes discussion boards and links to other archaeology Web sites.

The following professional development courses are being offered on campus by the **University of Victoria's Cultural Resource Management** Summer 2002 Program. Due to a tuition fee increase Summer Session fees have increased 15% from $560 to $643 on 1.5 unit courses.

—Re/Designing the Museum, 22-24 May 2002, instructor George Stockton.

—Electronic Outreach: Museum Programming on the Web, 3-8 June 2002, instructor Jim Spadaccini.

—Memory and Narrative in the Museum, 17-22 June 2002, instructor Roberta Kremer.

—Preserving Maritime Heritage, 8-13 July 2002, instructor William B. Lee.

For course outlines and information contact the Cultural Resource Management Division of Continuing Studies, University of Victoria, PO Box 3030 STN CSC, Victoria, BC V8W 3N6; tel. 250-721-8462; fax 250-721-8774; Web site: www.uvcs.uvic.ca/crmp/.

Simon Fraser University recently invited applications for a Tier II Canada Research Chair in First Nations Cultural and Environmental Resource Management to commence either 1 May 2003 or 1 September 2003.

The appointment will be as Assistant or Associate Professor, and held jointly between the two departments. The University is looking for someone who has expertise in First Nations cultural and environmental policy as it relates to resource management and land-use planning.

The position would involve an active research program in one or more of the following areas: Cultural Resource Management, resource planning and policy, and traditional cultural values, systems of land use, and ecological knowledge.

It is also expected that the successful candidate bridge academic and research interests between Archaeology and Resource and Environmental Management, and contribute effectively to both programs. The application deadline was 19 April 2002.

In the Archaeology Department at Simon Fraser University, **Amanda Marshall** successfully defended her thesis on 15 April 2002. Her thesis is entitled "Culturally Modified Trees of the Nechako Plateau: Cambium Utilization Amongst Traditional Carrier (Dakhel) Peoples."

The Department of Anthropology at the **University of Victoria** recently invited applications for a full-time (three classes per term) sessional position, September 2002-April 2003. They are seeking a scholar with a completed PhD or who is "ABD" and could teach introductory-level general anthropology, as well as second-year and upper-division courses in archaeology. The application deadline was 30 April 2002.

THE PINTO FLATS SITE

Submitted by the Upper Similkameen Indian Band Archaeology Department, Brenda Gould, Charlene Allison, and Danette Whitney

THE PINTO FLATS SITE is located two km west of the town of Hedley in south central British Columbia. It is situated within the ponderosa pine biogeoclimatic zone. The site itself is now a treeless field but was once dotted with ponderosa pine trees and large clumps of bunch grass. The site is located on a series of large flat terraces bound by a large bend in the Similkameen River. To the north there is a large alluvial fan. The site is located east of the Stirling Creek Bridge site (excavated in 1995), and west of the Chuchuwayha Rock Shelter (excavated in 1996) and the Mat Lodge Village (excavated in 1999 and 2000).

A chert quarry site is also located immediately north of the Pinto Flats site on the top of Striped Rocks, or "Amalgamator." This quarry, which runs all along the cliff of this small mountaintop, is known for its shiny black chert of excellent quality as well as its precarious position on the edge of the bluffs over Hedley. Elders indicate that the steep hillside above the Pinto Flats site was once covered in small piles of debitage, and that the young men would go up the hill to gather the raw material to make arrowheads. The only evidence of the chert quarry site today is a one-metre strip along the edge of the precarious cliff where lithic debitage is strewn about.

From the Pinto Flats site you can also view the Hedley Mascot Gold Mine perched equally precariously on the side of the mountain to the east.

We had always imagined that there was an archaeological site at Pinto Flats, and started noticing the odd lithic the first year that the field school used this field as a camp in 1999. It was not until the third year of hosting the Langara College Field School camp that a formed artifact was discovered on the upper terrace in the road. We then made a decision to locate excavation units in various areas of this large landform. Prior to excavation a thorough survey was performed and surface lithic concentrations were recorded using GPS, and mapped using GIS. The highest concentrations of surface scatters were located on the lowest terrace near the river. Another area of fairly high concentration was a small landform immediately behind the residence (cf. Fig. 1).

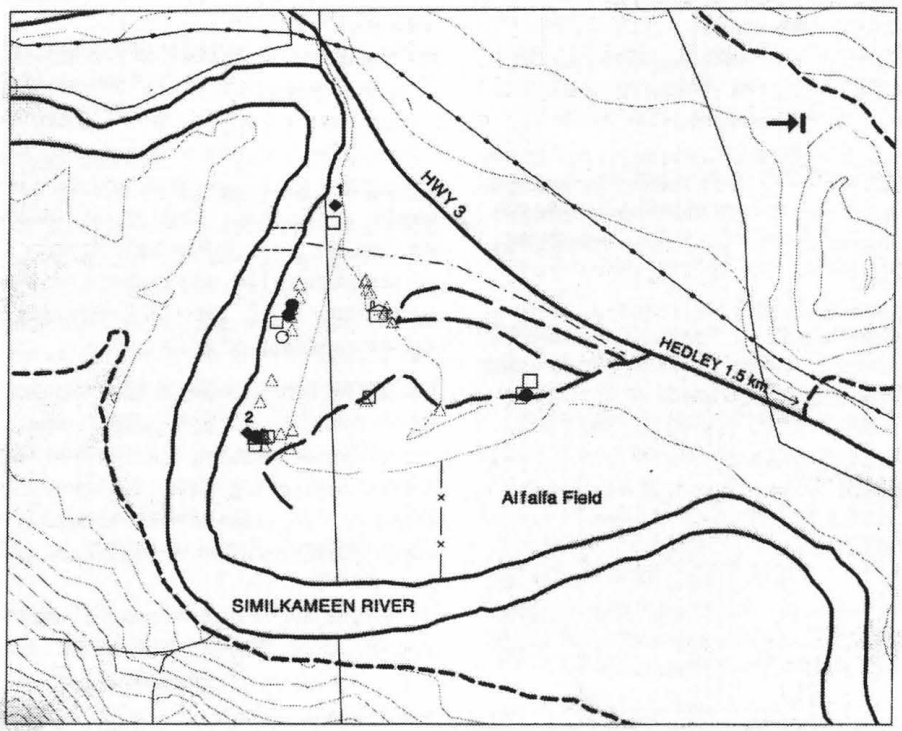

Figure 1. GIS map of the Pinto Flats site. The residence is in the centre. The numbers 1 and 2 stand for two different site datums. Triangles are lithic scatters, dots are artifacts on the surface, and the squares are where test units are located.

A very unusual occurrence consisting of two flakes of red chert was identified imbedded in the tarmac of the old highway, which runs through the property. Through our research, and in discussions with the Ministry of Highways, it has been determined that the fill used in construction of this portion of the highway likely came from very close by but its exact original location is not known.

As the Pinto Flats site is located on Indian Reserve lands no Archaeology Branch permit was necessary to conduct the excavations. However, an Upper Similkameen Indian Band Heritage Investigation permit was issued to undertake the excavations.

The excavations consisted of 2-x-2-metre units dug in 10-cm levels until they reached sterile sediments. Once sterile sediments were reached a 1-x-1-metre shovel test was done as deep as possible

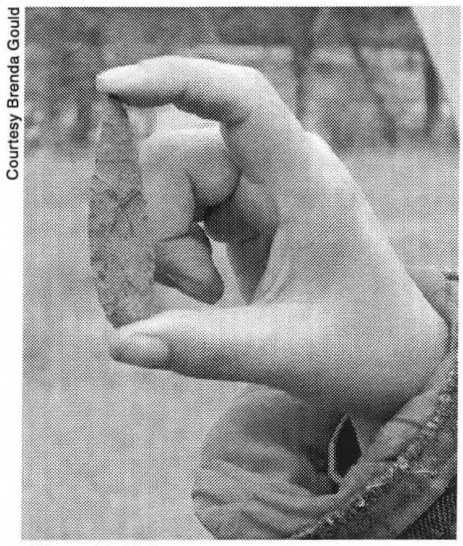

Figure 2. Point.

or until we hit the beach cobbles.

Two units were placed on the edge of the upper terrace where the first artifact was found—the tip of a point. Several units were placed on the lower terrace, where on three different days three leaf-shaped points were located on the surface, thanks to the action of some gophers. Another unit was placed several hundred metres to the north, where several corner-notched points were discovered on the surface. A final unit was started at the very northern corner of the landform, where a microblade was located in the backdirt pile of a coyote den.

At the northwestern corner of the terrace the bank rises steeply to meet Highway 3. Here an historic dump was located strewn about the side of the bank. This dump was fairly intact and the field school students were able to recover a lot of interesting historic artifacts. These artifacts were catalogued and set up as part of a display that was used to entertain and educate local school children who visited the site.

As part of the Upper Similkameen Indian Bands Community Based Archaeology Program, volunteers from the community assisted with the excavations. As well, local school children from the surrounding area were all invited to come and spend a day at the site. Even the youngest children turned out to be fairly adept at excavation techniques.

Although no radiocarbon dating has been done on this site, the artifacts recovered and the depths of the strata suggest that the site is probably 1,200 to 6,000 years old. Stan Copp has just received a small grant from Langara College this year, and two bone samples will be sent for radiocarbon dating. The samples were taken from a unit on the lower terrace, which was excavated to the river cobbles. A large roasting pit/hearth feature was located near the bottom of this unit and contained lots of faunal remains in association with large basalt bifaces and debitage.

Unlike the lack of stratigraphy at many sites in the Similkameen, Unit 3 on the upper terrace at the Pinto Flats site exhibited a very interesting stratigraphic profile. A thick band can be seen here about 50-60 cm below the surface. This band represents a mudflow or mass wastage event sometime in the past, which is

Courtesy Brenda Gould

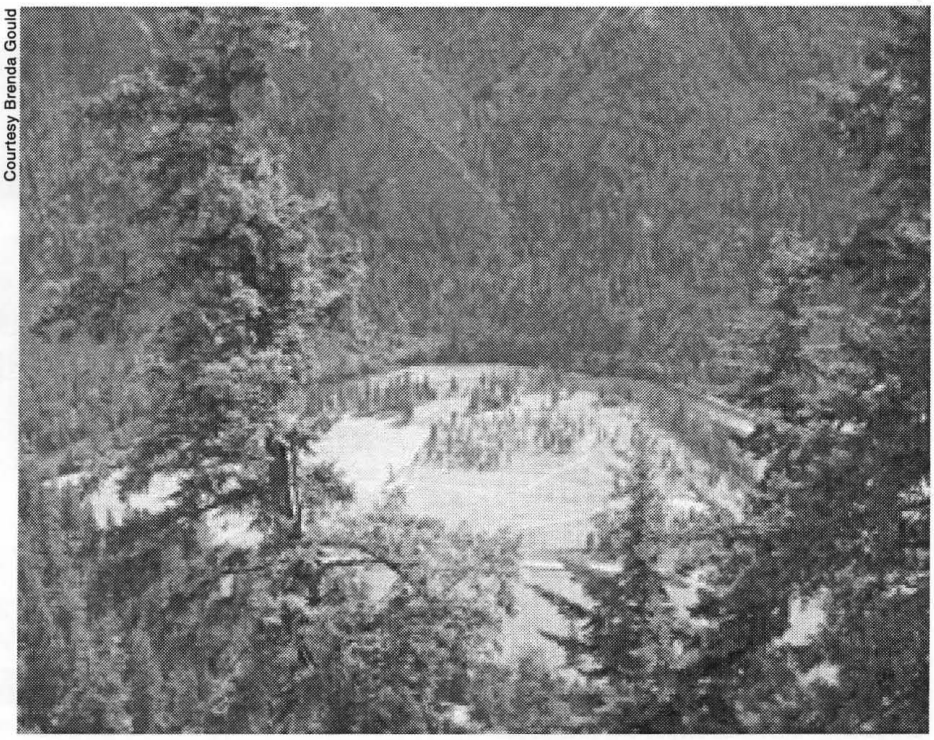

Figure 3. Pinto Flats from the top of the striped rock chert quarry.

in part responsible for the alluvial fan. Although this unit did not have any cultural material within or below this deposit, we are not ruling out that there may be something preserved somewhere else under this mudflow layer. An event such as this would have buried everything in its path. The location of Unit 3 on the edge of the terrace at the base of the alluvial fan suggests that further north the mudflow deposits should be considerably deeper.

Below this mudflow layer is a narrow band of ash-like sediments but this is not volcanic ash. There was some discussion as to whether or not the tephra-like substance mixed in with the mudflow was volcanic ash. It has been tested and we know that it is not. Where the alluvial fan originates there is a steep walled gully that has quite a bit of limestone-type deposits.

Although analysis of this site is preliminary in nature we feel that it may be an

Courtesy Brenda Gould

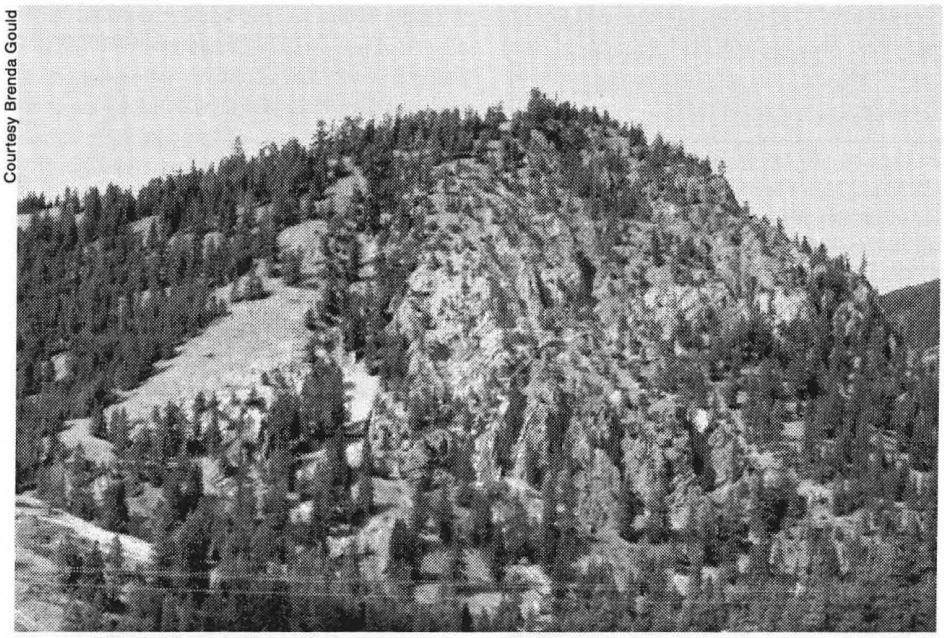

Figure 4. Striped rock chert quarry.

important site because of the variety of artifacts uncovered, the fact that we now know there are dateable features buried within this site, and because the stratigraphy of the upper terrace indicates a catastrophic event that may have impacted people living at this location in the past. Given that the nearby Stirling Creek Bridge site dates over 7,000 radiocarbon years BP, and the Chuchuwayha Rock Shelter has dated to over 3,750 radiocarbon years BP, we feel that the potential for the Pinto Flats site to contain early materials is high.

Unlike many of the terraces along the Similkameen River, Pinto Flats has not been extensively cultivated. Its primary purpose over the years has been as undeveloped pastureland for horses. The base of the alluvial fan to the north, however, has received numerous impacts over the years. The VV&E railway and bridge over the Similkameen, the building and realignment of Highway 3, telephone and power lines, and a pipeline all cross this fan. Unfortunately no archaeological work had been done during these developments and little is known.

Future impacts to this site include the potential for the highway to be widened, and the burial of all overhead power and phone lines. As well, the owners of the property want to develop a campground and horseback riding facility on the terraces, but do not want to impact an important archaeological site.

Plans for future research include backhoe testing of the alluvial fan to determine the nature and extent of the mudflow, as well as continuing excavations at this important site.

Brenda Gould, the field supervisor, holds a BA (hon.) in archaeology from Simon Fraser University and has been practicing archaeology in the Similkameen Valley since 1995.

Upper Similkameen Indian Band councillor Charlene Allison has participated in archaeological surveys and excavations since 1995 and is certified for Resource Inventory Committee (RIC) archaeological inventory and culturally modified tree programs.

Upper Similkameen Indian Band member Danette Whitney is in her second year of participation in archaeological inventory and assessment projects and also holds RIC certifications.

Courtesy Brenda Gould

Figure 5 . Even the youngest children turned out to be fairly adept at excavation techniques.

2002 ARCHAEOLOGICAL FIELD SCHOOLS

The University of Victoria is holding its archaeological field school on Newcastle Island from July 3 to August 17. Newcastle Island is a Provincial Marine Park located off the east coast of Vancouver Island next to Nanaimo. Field school students will stay in the campground on Newcastle Island. The course-work component will be taught in the mornings at the field camp, and the balance of the day will be divided between field and lab work. Cal Richie is the course instructor. The excavation will focus on the historical remains of a Japanese fish processing plant and boatyard.

The Archaeology Department at Simon Fraser University (SFU) is offering a field school in the Republic of Fiji from May 6 to July 12, taught by David Burley. Following two weeks of introductory classes held on the SFU Burnaby campus, students travel to Fiji for five weeks of classes at the University of South Pacific, Suva. This is followed by a three-week excavation project at the Sigatoka Sand Dunes National Park, one of the most important archaeological sites in Oceania. The Sigatoka Sand Dunes are a series of active parabolic dunes that occur over a distance of 5 km along the Coral Coast of Viti Levu. Because the dunes are eroding on their coastal margins, long buried archaeological remains are continually exposed. The Sigatoka Sands Dunes have been the subject of numerous excavation projects, including three previous SFU field schools (1996, 1998, 2000), which recovered evidence for all phases of Fiji's 3,000-year-long archaeological record.

The University of Northern British Columbia and the Cariboo Tribal Council are jointly sponsoring an archaeological field school. It will take place at Gustafsen Lake, in the central interior of BC, on a variety of archaeological sites. The field school will run from July 2 to August 23. Rudy Reimer and Dave Hall are co-teaching the course. Both course work and accommodations will take place at the field camp. The maximum enrollment is 16 students, consisting of eight community members and eight university students.

The University of British Columbia (UBC) is holding its archaeological field school on Dionisio Point from May 21 to June 28, with Colin Grier as instructor. The first week of introductory classes takes place at the UBC campus, followed by four weeks of fieldwork at the Dionisio Point archaeological site. The final week will consist of lab analy-

sis and cataloguing back at the UBC campus. The Dionisio Point archaeological site is situated on the northeast tip of Galiano Island in Dionisio Point Provincial Park. The site is an approximately 1,500-year-old village site that contains the remains of five large plankhouses. The fieldwork will focus on sampling the midden areas from all the houses to find comparative economic information.

In association with the Upper Similkameen Indian Band, Langara College is offering an archaeological field school during the Summer 2002 term (May–August). Stan Copp is the instructor. The first three weeks of background information lectures take place at the Langara campus and include local fieldtrips. This is followed by six weeks of survey and excavation based from a riverside tent camp on an Upper Similkameen band reserve. The fieldwork will focus on the site survey and recording of pre-contact pictograph sites along a 20-km section of the Upper Similkameen Valley in south central BC. Excavations will focus on continuing the 2001 excavation of the 4,000- to 8,000-year-old Pinto Flats site on the Chuchuwayha Reserve. Following the fieldwork, students will return to the Langara campus for three weeks of lab analysis.

The 10th Secwepemc Cultural Education Society–Simon Fraser University (SCES-SFU) archaeological field school will take place from May 6 to June 21, with George Nicholas as course instructor. The field school will consist of three components. The fieldwork component involves survey and excavation, followed by a laboratory component to analyze the artifacts and materials recovered. A seminar component examines the cultural and environmental history of the Interior Plateau over the past 12,000 years. The main focus of this year's field school is site EeRb 144, located on the edge of a glacial lake terrace on the Kamloops Indian Reserve. The site contains what may be the longest record of intermittent occupation that spans at least 6,000 years, and possibly more than 8,000 years. It is the largest terrace site known in the Kamloops area and contains many different activity areas. The archaeological field school will also investigate site EeRb 140 and plans to return to EeRb 77, a nearby flood-plain site. These investigations are part of an extensive, ongoing study of long-term Secwepemc land use that has been underway since 1991 on the Kamloops Indian Band Reserve.

FIELD NOTES

Special thanks go to Richard Garvin for collecting the Field Notes for this issue.

ANTIQUUS ARCHAEOLOGICAL CONSULTANTS LTD.

Antiquus Archaeological Consultants Ltd. reported that only two projects of note were undertaken during 2001 and early 2002. In late 2000 and early 2001, the company conducted archaeological monitoring within a portion of the Port Hammond site (DhRp 17), a pre-contact period and post-contact period site on the north bank of the Fraser River in the Port Hammond area of Maple Ridge near Vancouver. Investigations were undertaken by Mike Rousseau during construction activities associated with removal and replacement of a timber dry kiln building and apron within International Forest Products' (Interfor) Hammond Cedar Mill property. The study was overseen by Interfor, and the Katzie First Nation of Pitt Meadows.

Almost 1,400 lithic artifacts were recovered during the monitoring, including numerous projectile points and bifacially flaked knives, a large number of complete and fragmented celts, near-complete and fragmented hand mauls, approximately 700 ground slate knife fragments, sandstone abraders, roughly 100 flake tools, and a fair number of miscellaneous personal and decorative items. Overall the assemblage indicates this section of the site was used primarily as a woodworking area.

Around 130 bone and antler artifacts were recovered. They consist of complete and fragmented antler wedges, awls, unipoints, unilaterally barbed fixed bone and antler points, unilaterally barbed harpoon points, two toggling harpoon head valves, two pendants, a carved gorget-like ring, and a four-holed "whatsit".

The faunal assemblage recovered was extensive and included a wide variety of fauna. The main species represented are dog, elk, deer, black bear, raccoon, a large wildcat, harbour seal, duck, goose, eagle, grouse, great blue heron, diving waterfowl, salmon, sturgeon, herring, and a variety of shellfish. Human remains in various stages of decomposition and fragmentation were found scattered in several areas within the impact zone. The context of the human remains does not allow any firm indication of the initial mode(s) of interment, and many of the remains were removed from disturbed matrices.

Temporally diagnostic artifacts recovered are typical of the Marpole phase (2,500 to 1,500/1,100 BP). Five radiocarbon dates submitted during the study all range between about 2,000 and 1,500 years BP, indicating that the investigated part of DhRp 17 was occupied during the middle of the Marpole phase. Additional information and further details about the Port Hammond monitoring investigations are on file at the DAPA in Victoria (Permit No. 2000-292 report [Antiquus 2001]). A summary article will also be published in an upcoming volume on coastal prehistory to be compiled in honor of Phil Hobler.

In January 2002 Antiquus also conducted a brief detailed excavation program at the pre-contact period pithouse village site EeRl 21 at the east end of Seton Lake near the town of Lillooet. The project objective was to recover a sample of intact cultural deposits from a small (10 x 3 m) proposed subterranean water reservoir tank impact zone. This study was commissioned and overseen by the T'it Kit Administration in Lillooet.

Ten units were dug, and the excavations recovered about 150 lithic artifacts, most of which were simple utilized and retouched flakes. The projectile points recovered are temporally diagnostic of the Plateau horizon (2,400 to 1,200 BP) and Kamloops horizon (1,200 to 200 BP). Surprisingly little debitage was recovered, and actual tools outnumbered unused flakes. Three human burials were also encountered in addition to the northern edge of a large house pit feature buried by previous road construction. As a result of this investigation, it has since been decided to put the tank above ground to

avoid any direct adverse impacts to the human remains. Charcoal samples have been submitted for dating and the results and final report (Permit No. 2002-8) will be available in the near future.

—Mike Rousseau

ARROWSTONE ARCHAEOLOGICAL RESEARCH AND CONSULTING

Dave Hall of Arrowstone Archaeological Research and Consulting reported that the company completed its second full year of operation in 2001. In terms of activities along the BC north coast, Arrowstone conducted a number of forestry-related archaeological impact assessments on Hawkesbury Island in association with the Gitga'at First Nation. In the interior of BC, Arrowstone also conducted a number of forestry-related archaeological impact assessments near 100 Mile House on behalf of the Canim Lake Indian Band and Maven Archaeological Consulting. In the southwest corner of BC, Arrowstone conducted an archaeological impact survey (AIS) of the banks of Wahleach Lake near Chilliwack on behalf of the Stó:lō Nation, and conducted an archaeological impact assessment (AIA) of a woodlot near Harrison Mills in association with the Chehalis Indian Band and the Stó:lō Nation. Arrowstone also conducted an archaeological impact assessment of the proposed Callaghan Olympic Nordic Sports Centre near Whistler, part of the Vancouver 2010 Olympic bid. This project was conducted on behalf of Creekside Resources Ltd. in association with the Squamish and Líl'wat First Nations.

In the East Kootenays, Arrowstone, in association with the Ktunaxa-Kinbasket Tribal Council, conducted an archaeological impact assessment of a proposed subdivision along the north shore of St. Mary Lake. One previously recorded site on the development property, DjQb 1, was revisited and expanded upon, and one newly recorded archaeological site, DjQb 4, was also identified. Site DjQb 4 consists of a surface and subsurface lithic scatter comprised of 127 artifacts including one black tourmalinite projectile point tip resembling the tip of a Scottsbluff/Eden point; one Top of the World Chert biface end fragment; one black tourmalinite biface preform; one black tourmalinite core fragment; and 123 pieces of debitage including 78 pieces of green tourmaline chert debitage, 41 pieces of black tourmalinite, and four pieces of Top of the World Chert debitage.

Arrowstone also completed the monitoring of development activities at site DjPx 27 on the grounds of the Bootleg Gap Golf Course near Kimberley. The assemblage recovered from DjPx 27, which is dominated by mid-to-late-stage biface reduction debris and small finishing flakes, includes biface preforms and biface fragments, cores and core fragments, choppers, cortex spall tools, side scrapers and scraper fragments, notched and utilized flakes, a small amount of faunal remains, and projectile points and projectile point fragments dating primarily to the middle prehistoric period including Pelican Lake, Salmon River, McKean, and Lusk-like forms. The contents of the site suggest the repeated use and re-use of both the site and the nearby tourmalinite quarries on North Star and Bootleg mountains over several millennia.

—Dave Hall

SIMON FRASER UNIVERSITY-SECWEPEMC EDUCATION INSTITUTE

The 2002 SFU-SEI Archaeology Field School, directed by Dr. George Nicholas, will be continuing its survey, testing, and excavation program on the Kamloops Indian Reserve. Efforts continue to focus on the pre-4,000 BP site period. This year, excavations continue at EeRb 140 and 144, two multi-component terrace sites that have each yielded a relatively complete record of 7,000 years of occupation. In addition, work is planned at EeRb 77, located on the South Thompson River floodplain, where deep testing in 1991 by the field school revealed three meters of cultural deposits: a date of 5,590 ±100 (Beta 77134) on charcoal was obtained at 245 cm below datum. Field investigations at these three sites provide a unique opportunity to compare the archaeological and paleoenvironmental records of contemporaneous terrace and floodplain occupations during the middle and early Holocene.

This year also marks the 10th anniversary of the SCES-SEI Archaeology Field School, which will be marked by several public events scheduled for June. Established in 1991, this is the only university-level, First Nations-oriented archaeology program of its kind in Canada. Graduates of this program have worked for both consulting companies and First Nations organizations, and a number are pursing MA and PhD graduate studies.

Several other research projects are currently underway under the auspices of this program. George Nicholas has been working with John Jules (Kamloops Indian Band) and others on the recovery and analysis of a partial human skeleton (2000-14B) from the banks of the South Thompson River. The remains are associated with a small number of artifacts, including a Plateau point (1,200-2,400 BP), and several dog mandibles.

A study of an extensive series of pre-contact fish weirs on the South Thompson River is currently underway by Nicholas, Catherine Carlson (University College of the Cariboo), and Corene Lindsay (SFU, Burnaby). One major grouping has now been Total Station—mapped, with over 1,200 stakes recorded within a one-kilometre section of the river. The results of eight wood samples submitted to Isotraces for AMS dating are expected shortly.

Nicholas is also currently directing the archaeology and paleoenvironmental component of a major SSHRC-funded project on the past and historic/traditional associations between hunter-gatherers and wetland environments in coastal and interior settings. Field investigations are planned for this year and next.

Two other ongoing research projects seek information from archaeologists. Corene Lindsay is investigating freshwater mussels at archaeological sites throughout the Interior as the focus of her MA thesis research. Information on the presence of shellfish remains at Interior sites, or ethnographic and traditional accounts of the utilization of this resource, may be sent to: <corene@uniserve.com>. Celia Nord (SCES-SFU, Kamloops) is continuing her research on digging-stick handles on the Plateau and adjacent regions. To date, she has identified over 60 in museums and other collections, and is currently developing a classification sys-

tem for these important artifacts. Anyone with knowledge of historic or prehistoric digging-stick handles in the greater Plateau/Northwest Coast areas may contact her at: <celianord@excite.com>.

—GEORGE NICHOLAS

UNIVERSITY OF VICTORIA AND PARKS CANADA

Over the past year, University of Victoria and Parks Canada archaeologists have been working closely on several projects on the north coast of BC. In May of 2001, Quentin Mackie, along with UVIC graduate students Cynthia Lake and Trevor Orchard, took part in excavations led by Daryl Fedje (Parks Canada) at the Kilgii Gwaay site on Ellen Island, southern Gwaii Haanas, Haida Gwaii. This 9,400-year-old site contains a shell midden site with associated excellent preservation of fauna and technology, offering a window into very early maritime adaptations on the Northwest Coast. The lithics at this site are predominately unifacial, and will be the subject of a forthcoming thesis by Cynthia Lake.

In June of 2001, Fedje, accompanied by Mackie and three UVIC graduate students, mounted a three-week project to refine knowledge of the sea level history for eastern Hecate Strait. The crew extracted core samples and sections from a variety of bogs and ponds around Prince Rupert, and on Porcher and Dundas islands. Heiner Josenhans from the Atlantic Geological Survey was also involved. This project was funded by the NSERC/SSHRC "Coasts Under Stress" collaborative research initiative.

In July of 2001, the team undertook a three-week excavation project at the Richardson Island site, which was previously tested by Parks Canada in the mid 1990s. This highly stratified site contains evidence for the transition from bifacial technology (Kinggi Tradition) to microblade technology (Early Moresby Tradition) in Haida Gwaii. Notable finds include an occupation floor with a number of well-defined post features, dating to ca. 9,100 BP. This project is funded by SSHRC and will last for three years. Nicole Smith is starting a thesis on these finds.

UVIC has also been involved in paleontological research at a cave site in Kitgoro Inlet, on the west coast of Haida Gwaii. This project involved cavers Paul and Alan Griffith, former UVIC student Carol Ramsey, and archaeologists Daryl and Freia Fedje, and was also funded by the "Coasts Under Stress" research initiative. Notable finds include a series of black bear remains, ranging in age from 9,700 BP to 14,500 BP. These results are of interest in relation to the postulated Hecate glacial refugium, showing bears must have either arrived on the North Coast very early, or spent the last glacial maximum *in situ*.

In other activities, Duncan McLaren (UVIC) will soon be presenting a thesis outlining long-term occupation in the Stave watershed, including apparent pre-"Old Cordilleran" material. Trevor Orchard completed his thesis on Aleutian zooarchaeology and has gone on to the PhD program at Toronto. Glen McKay is working on sites in the SW Yukon for his MA thesis. Rebecca Wigen and Susan Crockford of Pacific Identifications are also actively doing research on a variety of zooarchaeological topics.

This coming year, Parks Canada and UVIC have made plans for further excavations at Kilgii Gwaay and Richardson Island, more coring and related sea-level work across Hecate Strait, and renewed investigations at Kitgoro and other limestone solution caves in Haida Gwaii. UVIC also hopes to offer an archaeological field school this summer at a historic Japanese Fish Saltery in Nanaimo.

—QUENTIN MACKIE

DOUGLAS COLLEGE AND COAST HERITAGE CONSULTING

In 2001, the Tseshaht Archaeological Project entered its third season of excavation in Barkley Sound, western Vancouver Island. Alan McMillan (Douglas College and Simon Fraser University) and Denis St. Claire (Coast Heritage Consulting) are co-directors of this research. Attention centred on the large village of Ts'ishaa (DfSi 16), on Benson Island in Barkley Sound, today within Pacific Rim National Park Reserve. This site is the origin place of the Tseshaht First Nation in their oral traditions and was their major ethnographic village. As in the previous field seasons, the project was supported and funded by Parks Canada and the Tseshaht Nation. A group of young Tseshaht received employment and training as part of the project, as did other youths hired through the Young Canada Works program administered by Parks Canada. Ian Sumpter represented Parks Canada on the project and undertook detailed shell analysis. Jim Stafford and George Kaufman served as field supervisors on different portions of the site. A total of 38 people worked at various times on the five-week project.

The first two field seasons of the project focused on the deep shell deposits of the main village site. Several large trenches were excavated through the midden, yielding a substantial collection of artifacts and faunal remains spanning the past two millennia. Two additional units, on a platform at one end of the site, were excavated in 2001. Whaling, hunting sea lions and fur seals, fishing, and shellfish collection were the major pre-contact economic activities at this outer island location. Small bone points dominate the artifact collection, which is typical of the West Coast culture type, considered to be the archaeological reflection of Nuu-chah-nulth culture prior to European contact.

Most of the 2001 fieldwork took place on a raised terrace at the back of the main village site. This location, initially tested in 2000, was occupied at a time of higher sea levels, when the main site area would have been an active beach. A series of radiocarbon dates spans the period from about 3,000 to 5,000 radiocarbon years ago. A number of highly distinctive artifacts, including a large biface of obsidian from Glass Buttes in Oregon, several large stemmed and facetted ground slate points, and large bone points with shallow barbs, came from the upper portion of this deposit. Crudely chipped stone tools, such as choppers, bipolar split pebbles, and quartz microliths, occurred throughout. Closest similarities are to the Hoko River site on the Olympic Peninsula and the Locarno Beach stage in the Strait of Georgia region. The differing assemblages from the two site areas suggest that a cultural break occurred just prior to 2,000 years ago.

—ALAN MCMILLAN

LANGARA COLLEGE

During the summer of 2001, Stan Copp with Langara College conducted the Third Annual Archaeology Field School in the Similkameen Valley of southwestern British Columbia. Fieldwork conducted included archaeological impact assessments of six Ministry of Forests recreation camps situated along the lower reaches of the Ashnola River. The results of these studies confirmed the presence, and defined the boundaries of, two previously recorded sites—DhRa 12 and DhRa 13. Several culturally modified trees were also recorded, although none were found to be automatically protected by provincial heritage legislation.

Field excavations continued at the pre-contact Pinto Flats site on reserve lands and this site also served as the field camp and base of operations. Three areas of the site were tested. Results indicate a number of occupations typologically dating from ca. 1,200 to 6,000 years BP. Radiometric assays on two of the occupations will be submitted by late Spring 2002. Site surveys resulted in the location of several unrecorded sites including lithic scatters, a rock shelter, two large pithouse depression sites, as well as the locations of two sacred petroforms.

The 2002 field school will return to the Pinto Flats site to continue evaluative testing. All work conducted in 2001 was carried out in association with the Upper and Lower Similkameen First Nations.

—STAN COPP

OKANAGAN UNIVERSITY COLLEGE

In 2001, Richard Garvin of Okanagan University College began the first of a three-year SSHRC funded project designed to locate, map, and record historic First Nation's cemeteries on the northern BC coast. The North Coast Native Cemeteries Project was developed with several goals designated as priorities: first, to find and record historic Native cemeteries which, in many cases, have been lost or forgotten; second, to provide up-to-date cultural resource management training to youths in remote First Nations' communities; third, to conserve and preserve these cemeteries for future generations; and fourth, to use the temporal and spatial cemetery data derived from the project to examine the dynamics of cultural change and syncretism brought about by culture contact and colonialism.

The 2001 field season consisted mostly of preliminary field reconnaissance and preparations for the 2002 field season, which will take place primarily in Haisla and Nisga'a traditional territories. Attempts were made to simply locate as many historic Native cemeteries as possible in and around Kitamaat Village and down Douglas Channel (Haisla), and territories assigned to the Nisga'a villages of Gingolx, Lakalzap, Gitwinksihlkw, and Gitlakdamiks. The possible involvement of the Gitxsan, Haida, and Tsimshian First Nations in the future will greatly expand the project.

—RICHARD GARVIN

SFU 2001 FIELD SEASON AT THE SALLOOMT SITE

The Simon Fraser University (SFU) field school was conducted at the Early Period Salloomt Site in the middle Bella Coola Valley. Field work took place in June and July, following a month of lectures, exercises, and exams on campus in May. Phil Hobler was in charge, assisted by Mike Will. Lisa Seip supervised five Bella Coola Environmental Youth Team participants through August. The 16 SFU students brought the team total to 24.

The SFU field school has long operated on the principle that field methods should be taught in association with a research project with serious goals. The 2001 project is an extension of Hobler's 1994-1996 field research at the Early Period site of Tsini tsini (FcSm 11). Like Tsini tsini, the Salloomt Site is located high up on the valley margin and appears to relate to the time of the marine transgression. Also like Tsini tsini the site failed to produce associated datable carbon. While Tsini tsini was clearly a workshop with a huge ratio of debitage to tools, the Salloomt Site looks more like a camp. At Salloomt finished tools, leaf-shaped points, and cores, mostly of andesite, occur in quantity while debitage is much lower than at Tsini tsini. Microblade technology in obsidian is present but microblade cores were subsequently reduced bipolarly to small nubbins. Core scrapers are common. Cores are nearly all centripetal, with several showing levallois-like biconvexity. The latter are matched by good levallois flakes. The second most common tools are small microburin-like piercers made by the intersection of a break and a retouched edge or a notch. In the most common tool category utilization merges with marginal retouch to form a range of simple scraper-like tools, nearly all of which seem to result from expedient use.

While the Salloomt Site is clearly of Early Period age, systematic comparison with dated components at Namu is currently underway and may provide more accurate time placement.

—PHIL HOBLER

THE MIDDEN

We need a news editor to compile information on archaeological conferences, lectures, exhibits, courses, and related archaeological news items.

If you are interested in assisting with the production of the ASBC's quarterly publication please contact Heather Myles, *Midden* Editor, for more information.

Phone 604-274-4294 or e-mail heathermyles@shaw.ca.

BOOK REVIEWS

Nuu-chah-nulth Voices, Histories, Objects and Journeys

Edited by ALAN L. HOOVER
Royal British Columbia Museum, 2000.
408 pp. illus., app., refs.
ISBN 0-7718-9548-8, (Hc) Price: $39.95

Nuu-chah-nulth Voices, Histories, Objects and Journeys is one of two books the Royal British Columbia Museum published to complement the exhibition "Out of the Mist: Huupuk^{w}anum—Tupaat, Treasures of the Nuu-chah-nulth Chiefs," created by the Museum and Nuu-chah-nulth Tribal Council. While the other publication, named after the exhibit (Black 1999), serves as a companion to the exhibit, *Nuu-chah-nulth Voices, Histories, Objects and Journeys* provides the reader with information on the culture and history of the Nuu-chah-nulth that is not fully revealed in the artwork of the exhibition.

As the title suggests, the volume is divided into four parts: Voices, Histories, Objects, and Journeys. Part 1, "Voices," attempts to provide the reader with some insight into Nuu-chah-nulth perspectives on their own histories and their futures. The section begins with an essay written by Richard Inglis, James C. Haggarty, and Kevin Neary titled "Balancing History: An Emerging First Nations Authority." By proposing that we need to find a balance between histories written by outsiders and those from a First Nations' perspective, they set the tone for the other two essays that complete this section: the "Yuquot Agenda Paper" by the Mowachaht-Muchalaht First Nations and the "Kiix?in Agenda Paper" by the Huu-ay-aht First Nation.

The second part of the book, "Histories," is comprised of six essays that focus on the post-contact period in the Nuu-chah-nulth territory. R.M. Galois starts this section with an analysis of encounters of members of James Colnett's first expedition to the Northwest Coast in 1787-1788 with various Nuu-chah-nulth peoples. Instead of staying at Yuquot, Colnett's expedition spent most of their time with the Muchalaht groups. Historical encounters between early European explorers and Nuu-chah-nulth groups is further explored by Inglis and Haggarty in the second paper, "Cook to Jewitt: Three Decades of Change in Nootka Sound." In the third essay in this section, Yvonne Marshall focuses on material culture change during the historic period, specifically on the art and architecture of potlatch houses at Yuquot. Kathy Robinson and Caroline Little's contribution describes a memorial potlatch. In "Legendary History of the Tsisha'ath: A Working Translation," Susan Golla derives a detailed history from the oral traditions of a Nuu-chah-nulth group located in Barkley Sound. Wrapping up "Histories" are Douglas Thomas's descriptions and illustrations of face paintings in the Sapir Collection.

Seven essays on the material culture of the Nuu-chah-nulth make up Part 3, "Objects." It starts with Charlotte Townsend-Gault's conversation with the prominent contemporary Nuu-chah-nulth artist Ki-ke-in. In the second paper, "Early Nuu-chah-nulth Art and Adornment: Glimpses from the Archaeological Record," Alan D. McMillan looks deep into early art of the area. J.C.H. King provides a description of Nuu-chah-nulth art at the British Museum. In "Flowing Traditions: The Appearance and Relations of Nuu-chah-nulth Visual Symbolism," Steven C. Brown explores how Nuu-chah-nulth artists in both the contemporary period and throughout history have developed an art style that exhibits great flexibility and fluidity when compared to other Northwest Coast styles. Aldona Jonaitis compares the different types of anthropomorphic figures and wonders what the differences mean in "The Mowachaht Whalers' Shrine." Eugene Arima offers his thoughts on the Nuu-chah-nulth canoe and variability between the sealing, whaling, and war models. "Objects" concludes with Andrea Laforet's exploration of the woven whaler's hat in "Ellen Curley's Hat."

"Journeys" concludes the volume with biographical essays on three contemporary Nuu-chah-nulth artists: Tsa-qwa-supp (Art Thompson), Joe David, and Tim Paul. Each of these papers explores the journeys that each of these men took to reach their full potential as artists. Tsa-qwa-supp's journey, as described in his conversation with Martha Black, was one of extreme contrast from experiences of sexual and physical abuse at Alberni Indian Residential School, to episodes of alcohol and drug abuse punctuated by positive periods of art and cultural studies. Joe David also pursued formal art training, but focused on the Tla-o-qui-aht style of his ancestors. He shares his perspectives and personal history with Karen Duffek. Peter Macnair describes Tim Paul's history in "Tim Paul: The Homeward Journey" from his days as an apprentice artist with Richard Hunt through some of his more famous creations. The figures illustrate the evolution and variety of techniques utilized by this artist.

The value of this volume is the balance of perspectives that it offers the reader. Hoover has assembled perspectives from the outside with papers written by prominent "experts" in the fields of archaeology, anthropology, history, geography, and art, and from the inside with essays written by Nuu-chah-nulth groups and biographies of well-known Nuu-chah-nulth artists. This book will appeal to anyone who would like to learn about this fantastic culture. These papers take the reader on a journey from the 4,000 plus years that archaeologists have managed to trace Nuu-chah-nulth material remains, to the present day where anyone in the general public can go to a museum or art gallery and see masks, carvings, and paintings that many Nuu-chah-nulth artists continue to create. Even readers with a considerable familiarity with Nuu-chah-nulth history will find value in learning more about the Nuu-chah-nulth perspectives on their legends and histories.

Monica Karpiak

References:

Black, Martha 1999 *Out of the Mist: Huupuk^{w}anum—Tupaat, Treasures of the Nuu-chah-nulth Chiefs.* Royal British Columbia Museum, Victoria.

Monica Karpiak is currently working toward her Master's degree in Archaeology at Simon Fraser University. Her interests include the archaeology of pre-contact coastal British Columbia, especially in terms of settlement strategies and land use, public archaeology, and contemporary issues affecting Aboriginal communities in this province.

PERMITS

ISSUED BY THE ARCHAEOLOGY BRANCH AUGUST TO DECEMBER 2001

The assistance of Ray Kenny (Manager, Assessment and Planning Section) and Alan Riches (Administrative Clerk) in providing this information is gratefully acknowledged.

Glossary of Abbreviations: A number of recurrent abbreviations may not be familiar to many readers of *The Midden*, and the most common of these are explained here. *Permit types*: ALT = Alteration; INS = Inspection; INV = Investigation; *Archaeological project types:* AIA = Archaeological Impact Assessment; AIS = Archaeological Inventory Study; PFR=Preliminary Field Reconnaissance; SDR = Systematic Data Recovery; *Forest industry terms:* CMT = Culturally Modified Tree; CP = Cutting Permit; FD = Forest District, FL = Forest Licence; FSR = Forest Service Road; MoF = Ministry of Forests; SBFEP = Small Business Forest Enterprise Program; TFL = Tree Farm Licence; TL = Timber Licence; TSA = Timber Sales Area; TSL = Timber Supply Licence. *Other government agencies*: DFO = Department of Fisheries and Oceans; DINA = Department of Indian and Northern Affairs; MELP = Ministry of Environment, Lands and Parks; MEMPR = Ministry of Energy, Mines and Petroleum Resources; MoTH = Ministry of Transportation and Highways; *First Nations concerns*: ATT = Asserted Traditional Territory; FN = First Nation; *Legal title descriptions:* DL = District Lot; LD = Land District; Rge = Range; R/W = right-of-way; P/L = pipeline; Sec = Section, T/L = transmission line; Tp = Township

2001-345	Ian Franck	INS	AIA for proposed redevelopment of properties at 1155 Pitt River Road, 1884, 1920, and 1930 Harbour Street, and 1887, 1893 and 1911 Prince Street, vicinity of DhRq 021, City Port Coquitlam
2001-346	Owen Grant	INS	AIA of International Forest Products Ltd.'s forestry operations exclusively within the ATT of the Gwa'Sala-Nakwaxda'xw FN and Gwawaenuk Tribe, Port McNeill FD
2001-347	Cameron Simpson	ALT	Alterations to CMT#4 within GgSn 051 and CMT#8b within GgSn 052, by Houston Forest Products Company's access road construction in cut block 509-3, FL A16827, W of the Morrison Arm of Babine Lake, Morice FD
2001-348	Dennis Lelonde	ALT	Alterations to DfRv 018, by NorseCanada's completion of previously-halted sewer repairs N of Crofton
2001-349	Clinton Coates	INS	AIA of MoF/SBFEP forestry operations within cut blocks A52180-1, A52180-2, A52180-3, A52952-3, A42181-3A and A42181-3B, all SW of Bralorne, Lillooet FD
2001-350	Dave Simpson	ALT	Topping of CMTs#1-11 within EeSs 010, by TFL Forest Ltd. (Beaver Cove Operations) forestry operations in Block 9020-B of FL A20913, near Fair Harbour and Tahsish Inlet on NW Vancouver Island, Campbell River FD
2001-351	Richard Brolly	INS	Inventory and AIA for residential development at 15501-15505 Marine Drive, White Rock
2001-352	Susan Woods	INS	AIA of forestry operations within CP 194, Blocks 7, 8, 11, and 13, Enterprise Creek, Lillooet FD
2001-353	Susan Woods	INS	AIA of Ainsworth Lumber Company Ltd.'s forestry operations within CP 217 (Blocks 3 and 4), Downton Creek drainage, Lillooet FD
2001-354	Sandra Witt	INS	AIA for the proposed Rutherford Creek Hydroelectric project
2001-355	Noel Richardson	ALT	Alterations to DgRq 031, within Lot 12 Sec 10 LS 2 NWD Plan LMP24916 Part NE¼, Panorama Ridge neighbourhood, Surrey
2001-356	Terry Lazaruk	ALT	Alterations to CMTs within FhSc 14 (including area formerly referred to as FhSc 22) by Plateau Forest Products Ltd.'s operations in Beetle Management Areas associated with FL A18157 about 5.5 km S of Chutanli Lake, Vanderhoof FD
2001-357	Susan Woods	INS	AIA of Ansiworth Lumber Company Ltd.'s forestry operations within CP 999, Block 43, in the Trimble Creek drainage, Lillooet FD
2001-358	Chris Engisch	INS	AIA of Western Forest Products Ltd.'s forestry operations on Roderick and Pooley islands, solely within the ATT of the Kitasoo Nation, Mid Coast FD
2001-359	Tanja Hoffmann	INS	AIA of BC Parks' (Cultus Lake Area) proposed parking lot and recreational facility expansion N of the existing gravel parking lot at Coquihalla Canyon Provincial Park (Othello Tunnels), approximately 6 km E of Hope
2001-360	Bruce McKerricher	ALT	Alterations to CMTs 1-2 within EaSt 10 by access road construction to TSL A38878, on the E shore of Union Island, Campbell River FD
2001-361	Morley Eldridge	INS	AIA of proposed forestry operations within the South Island FD, excluding the ATT of Scia'new FN, Chemainus FN, Cowichan Tribes, Lake Cowichan FN, Esquimalt Nation, Halat FN, Lyackson FN, Malahat FN, Pauquachin FN, Penelakut Tribe, Songhees FN, T'Sou-ke Band, Tsartlip FN, Tsawout FN, and Tseycum FN

2001-362	Cameron Simpson	ALT	Alterations to CMTs 18-21 within GgSn 48 by Houston Forest Products' access road construction to Cut Block 509-2, and an estimated 360 CMTs within GgSn 49 by forestry operations in Cutblock 509-1; both blocks are located in FL A16827, W of the Morrison Arm of Babine Lake, Morice FD
2001-363	Ian Wilson	INS	Inventory and AIA of potential Skeena Cellulose Inc. (Carnaby Operations) forestry developments within the Kispiox FD
2001-364	Martin Handly	INS	AIA for a proposed golf course within Lot A, DL 9561, Kootenay District Plan 2684, near Windermere Lake and Invermere
2001-365	Kevin Twohig	INV	Systematic data recovery at ElRl 4, Chimney Lake Recreation Site, near Williams Lake
2001-366	Diana French	INS	AIA of the Crystal Graphite Mine Project, including open pit quarry in the upper Hodder Creek area and ancillary facilities located near the existing plant near Koch Creek and Grizzly Creek, NW of Nelson
2001-367	Terry Lazaruk	ALT	Alterations of CMTs within FiSb 11, by Plateau Forest Products Ltd.'s forestry operations in Beetle Management Area 49-17, FL A18157, located E of Lavoie Lake, Vanderhoof FD
2001-368	Martin Handly	INS	AIA of a proposed golf and country club development near Mabel and Lusk lakes, 35 km E of Enderby in the Okanagan Valley
2001-369	Ian Wilson	INS	Inventory and post-impact AIAs for the Parkland 2000 3D Seismic Program, NE BC
2001-370	Bruce Dahlstrom	INS	Inventory and AIAs of MoF forestry developments within the Lakes FD
2001-371	Lindsay Oliver	INS	Inventory and AIA of forestry operations within Cut Blocks 1-5 of Woodlot 1779, located on the S side of Seton Lake, Lillooet FD
2001-372	Raymond Fromme	ALT	Alterations to HhRn 12 by construction of Petro-Canada Oil and Gas Ltd.'s pipeline from b-84A-B, 94 G/8 to Unit 77 Block B, 94 G/8, NE BC
2001-373	Derek Drake	ALT	Alteration of CMTs within DiSo 37 by construction of the proposed H-1600 and H-1620 roads, and/or forestry operations in Block HE-820, Vancouver Island
2001-374	Sandra Witt	INS	AIA of the proposed Callaghan Olympic Nordic Sports Centre site, S of Callaghan Lake, SW BC
2001-375	Susan Woods	INS	AIA of forestry operations within CP 999, Block 41, Tyaughton Creek, Lillooet FD
2001-376	Bruce Ball	INS	AIA of Paradigm Logging Ltd.'s forestry operations in the Hill Lake and Narcosli Creek areas, Quesnel FD
2001-377	Ian Wilson	INS	Inventory and AIA at 2730 Thorpe Place, Oak Bay, Victoria
2001-378	Jeff Bailey	INS	AIA of the Norske Skog Pulp Mill landfill expansion near Crofton
2001-379	Susan Woods	INS	AIA of proposed forestry operations within CP 202 (Block 17), S shore of Carpenter Lake, Lillooet FD
2001-380	Susan Woods	INS	AIA of proposed forestry operations within CP 189 (Blocks 1-3, 5, 11-14) Ault Creek and Green Mountain areas, Lillooet FD
2001-381	Rainer Schmidt	ALT	Alterations to 50 CMTs within GcSo 4 by forestry operations in Woodlot Licence 185, CP 2, located approximately 10 km S of Topley, Morice FD
2001-382	Vicki Feddema	INS	Archaeological inventory of selected areas within the ATT territory of Tseshaht FN, excluding overlap areas with the Huu-ay-aht and Toquaht FNs but including overlap areas with the Hupacasath, Uchucklesaht and Ucluelet FNs, South Island FD
2001-383	Peter Merchant	INS	AIA for proposed commercial property re-development at 15611 Marine Drive, White Rock (Lot 6, 7,8, Part E-½ and W-½ of Lot B, Plan 10819, Sec 11, Tp 1, NWD)
2001-384	Don Kirkland	ALT	Alterations to DgRs 7 by Land-Kirk Construction's demolition and construction activities at 1666 Beach Grove Road, Delta
2001-385	Craig Hooper	ALT	Alterations to GaSe 10 by MoF/Recreation Department's proposed relocation of four outhouses at the Peterson's Beach Recreation Site, located on the N shore of Fraser Lake, Vanderhoof FD
2001-386	Amanda Marshall	INS	AIA of Canfor's proposed "pine beetle sanitation sites" within FL A40873, Vanderhoof FD
2001-387	Rudy Reimer	INS	AIA of International Forest Products' forestry operations within Cut Blocks 13-4 and 42-85, TFL 38, Squamish FD
2001-388	David Biggs	ALT	Archaeological monitoring, mitigative data recovery and alterations at DcRt 9 and/or DcRt 15, resulting from the Capital Regional District's replacement and relocation of a portion of the East Coast Interceptor sewer line passing through Gyro Park, at Cadboro Bay in the Municipality of Saanich

2001-389	Darrell Barron	ALT	Alterations to ElRl 5, ElRl 25, ElRl 26, and ElRl 28 by upgrading BC Forest Service Recreation Sites at Chimney and Felker lakes
2001-390	Andrew Mason	INS	AIA of Interfor's forestry operations within Cut Block 999-19 near Adams Lake, Kamloops FD
2001-391	Kevin Twohig	INS	AIA of MoF/SBFEP forestry operations within the 100 Mile House FD
2001-392	William Jones	ALT	Alterations to DgRq 31 by proposed subdivision and residential development of: P.I.D. 005-211-263, Plan 54344, Lot 47, Part SE¼ LD 36, Sec 10, TP2; P.I.D. 005-211-280, Plan 58344, Lot 48, Part SE¼ LD 36, Sec 10, TP2; and P.I.D. 007-493-363, Plan 4258, N½ of Lot 6, LD 36, Sec 10, Tp 2 in the Panorama Ridge neighbourhood of Surrey
2001-393	Duncan McLaren	INS	AIA of several properties owned by Genstar in the Silvermere Reservoir on the Stave River
2001-394	Ian Wilson	INS	AIA of MoF forestry operations within TSA57738, located N of Amai Creek, Kyuquot Sound, Campbell River FD
2001-395	Joe Kenny	ALT	Alterations that may occur within the boundaries of FbSv 6 and FbSv 7 during International Forest Products Ltd.'s forestry operations in TO 483, Blocks J102 and J106, located in the Jenny Inlet area of King Island, Mid-Coast FD
2001-396	Doug Brown	INS	AIA for proposed improvements to the Chehalis River Forest Service Campground, located on Morris Valley Road and SW side of the Chehalis River, Chilliwack FD
2001-397	Hartley Odwak	INS	AIA of Canadian Forest Products Ltd.'s forestry operations in TFL 37 and FL A19233, that occur solely within the ATT of the 'Namgis FN in the lower and upper Nimpkish areas of the Port McNeill and Campbell River FDs
2001-398	Michael Graup	ALT	Alterations of CMTs 20-21 within GhTg 24 by Skeena Cellulose Inc. (Terrace Woodlands Operations) forestry operations in Cut Block 215114, FL A64298, located in the area of Fulmar Creek, Kalum FD
2001-399	Michael Graup	ALT	Alterations of CMTs 10-11, 20-21 and 30 within GhTg 25 by Skeena Cellulose Inc. (Terrace Woodlands Operations) forestry operations in Cut Block 215118, FL A64298, located in the area of Fulmar Creek, Kalum FD
2001-400	Mark Thom	ALT	Alterations to CMTs 1-9 within HcSt 2, CMTs 1-6 within HcSt 3, CMTs 10-11 within HcSt 5, and CMTs 1-8 within HcSt 4, by Takla Forest Management Ltd.'s forestry operations in CP A00, Block SUS-009 of FL A27823, Fort St James FD
2001-401	Michael Graup	ALT	Alterations of CMTs 19-20, 25-27, 36-38, 61-62, 75-77, 79, 87, 89, 99, 106, 116, 128, 144-145, 149, and 200 within GhTf 3, by Skeena Cellulose Inc. (Terrace Woodlands Operations) forestry operations in Cut Block 215112, FL A64298, located in the area of Fulmar Creek, Kalum FD
2001-402	Brian Pegg	INS	Inventory and AIA for 3 parcels of Crown Land located on the W bank of the Fraser River, 20 km SW of Williams Lake, and proposed for land exchange by the Ministry of Attorney General, Treaty Negotiation Office, Aboriginal Relations Branch
2001-403	Monty Mitchell	INS	AIA of MoF/SBFEP forestry operations within the ATT of the Nuxalk FN, Mid-Coast FD
2001-404	Richard Brolly	INS	Inventory and AIA at 1450 Blanca Street and 4686 NW Marine Drive, in the vicinity of DhRt 6 (Locarno Beach Site), Vancouver
2001-405	Martin Handly	INS	AIA of 4 Seasons Commercial Realty Corporation's proposed 9- lot residential subdivision development at 4639 Lakeshore Road, (Lot 3, Plan 6731, DL 167), Kelowna
2001-406	Robert Ballinger	ALT	Alterations to CMTs within FlTd 9 by Skeena Sawmills Division (West Fraser Mills Ltd.) forestry operations in Unit C of Block 41-10-2, on the N shore of Kildala Arm of Douglas Channel, S of Kitimat, Kalum FD
2001-407	Wayne French	ALT	Alterations to CMTs within sites DfSg 62 through DfSg 68 by Weyerhaeuser Company Ltd. (West Island Timberlands) forestry operations in TFL 44, Cut Blocks 9503, 9505 and 9508, near Useless Inlet, South Island FD
2001-408	Ian Wilson	INS	Inventory and AIA of proposed residential construction at 3120 Humber Road, Oak Bay, Victoria
2001-409	Clayton Smith	ALT	Alterations to CMTs 1-5 within DkSo 51 by Western Forest Products Ltd.'s forestry operations in TFL 19, Block H58, located on the W side of Tlupana Inlet, Campbell River FD
2001-410	Monty Mitchell	INS	AIA of Triumph Timber Ltd.'s forestry operations within FL A16820, located in the ATT of the Kitamaat Village Council (Haisla Nation), North Coast FD

EXHIBITS

MUSEUM OF ANTHROPOLOGY

"Káxláya ˇGvílás" 24 April to 2 September 2002

Káxláya ˇGvílás means "the ones who uphold the laws of our ancestors" in the Heiltsuk language. This unique exhibit brings together contemporary art works from the Heiltsuk village of Waglisla (Bella Bella) and historical pieces from the Royal Ontario Museum's R.W. Large Collection. A wide variety of rarely seen objects are on display, such as masks, carved figures, boxes, baskets, bows, walking sticks and staffs, musical instruments, jewellery, tools, and fishing gear. This exhibit was produced in collaboration with the Heiltsuk Tribal Council, the Heiltsuk Cultural Centre, the Royal British Columbia Museum, and the Royal Ontario Museum. For further information contact the Museum of Anthropology at 604.822.5087, or refer to Web site <www.moa.ubc.ca>.

LANGLEY CENTENNIAL MUSEUM & NATIONAL EXHIBITION CENTRE

"Coming Home" through 18 July 2002

On display in this temporary exhibit are treasures and collectibles from the original collection of Fort Langley. "Coming Home" features unique pieces of history collected by community volunteers from the 1920s to the 1950s. This exhibit was done in partnership with the Fort Langley National Historic Site. For further information contact the Langley Centennial Museum & National Exhibition Centre at 604.888.3922, or check out Web site <www.langleymuseum.org>.

CONFERENCES 2002

May 16–18 **Canadian Archaeological Association (CAA), 35th Annual Meeting**
Ottawa, Ontario

The proposed theme for the 35th Annual Meeting of the CAA is "Issues in Archaeological Frameworks." The goals of this theme are to review the current state of knowledge and understanding of research topics, needs, associated problems and gaps, and to identify and facilitate solutions. Encouraging debate about contemporary archaeological frameworks will provide the necessary support for the next generation of research. The preliminary program is now available on the CAA Web site. Session topics include: Seascapes and Landscapes; Archaeology and Communities; Miscellaneous Studies; Plains Archaeology; Northwest Coast Archaeology; The Pre-ceramic Period in the Northeast; Arctic Archaeology; Middle Ontario Iroquois and Contributed Papers on Iroquoian Archaeology; The Practice of Archaeology; The Archaeology of the Atlantic Region; Raising the Profile: Exploring Solutions to Artifact Overload; and Public Outreach: Working with Teachers and Students and Delivering the CAA's Archaeology Canada Curriculum.

Contact: Chair of the CAA-2002 Organizing Committee, Dr. David Morrison, Canadian Museum of Civilization, PO Box 3100, Station B, Hull, Québec, J8X 4H2; tel. 819.776.8198; fax 819.776.8300; e-mail: <david.morrison@civilization.ca>. Program Chairs: Dr. Jean-Luc Pilon and Dr. Richard Morlan, Canadian Museum of Civilization, PO Box 3100, Station B, Hull, Québec, J8X 4H2; tel. 819.776.8192 (Dr. Pilon); tel. 819. 776.8197 (Dr. Morlan); fax 819. 776.8300; e-mail: <jean-luc.pilon@civilization.ca>, <richard.morlan@civilization.ca>; Web site: <www.canadianarchaeology.com>.

More conferences on outside cover >>

CONFERENCES 2002 (CONT.)

May 30–June 1

24th Annual Heritage Society of BC Conference, "Living and Working in the Fraser Valley"
Chilliwack, BC

The City of Chilliwack is hosting the 24th Annual Conference of the Heritage Society of BC. Conference sessions and workshops are focusing on the following topics: heritage inventories; industrial heritage; BC's hop industry; heritage values and character; using financial incentives to protect heritage; the National Register of Historic Places; and the Vancouver Heritage Foundation's "True Colours Program."

Contact: Heritage Society of BC conference office, 108-9865 140th St., Surrey, BC, V3T-4M4; tel./fax 604.582.1332; email: <hsbcjan@bc-alter.net>; Web site: <www.islandnet.com/~hsbc>.

October 23–26

BC Museum Association's Conference 2002, "Negotiating the Changing Landscape"
Vancouver, BC

The BCMA's Conference 2002 will explore the current economic, political, and social changes that are sweeping the provincial landscape and re-shaping how communities, cultural institutions, and workplaces must adapt to continue to preserve and promote heritage values. Proposed sessions include: Sustainability: Landmarks for Success; The Pillar of Your Community: Your Community Profile; Tourism—Our Way; Youth and Volunteerism: Experience that Counts; Core Competencies: Next Steps; and Heritage as Core Curriculum: Steering Towards the Future. Publication of the Preliminary Conference 2002 Program is scheduled for 15 May 2002.

Contact: Lesley Moore, Conference 2002 Coordinator, British Columbia Museums Association, Suite 204, 26 Bastion Square, Victoria, BC, V8W 1H9; voice mail: 250.356.5856 E-mail: <lmoore@MuseumsAssn.bc.ca>; Web site : <www.museumsassn.bc.ca/conference/2002/>.

November 13–17

35th Annual Chacmool Conference, "Apocalypse Then & Now"
Calgary, Alberta

The focus of the 35th Annual Chacmool Conference is on how our discipline deals with disasters (both natural and human-caused) and other world-ending crises. Potential topics include: Megafauna Extinctions; Disasters of Biblical Proportions; Interpersonal Violence in the Past; Archaeology & the Art of War; Emerging & Re-emerging Infectious Diseases: Implications for Human Variation; Broken Vessels: The Archaeology of Shipwrecks; Apocalyptic Themes in the Classical World: The Archaeology of Invasion; Natural Calamities; Challenging Thirst: Drought as a Factor in Human and Landscape History; Archaeology of Pompeii; Eruptions and Interruptions: Human Impacts of Volcanoes; The Maya Collapse; Post-Apocalyptic Archaeology: Recovering from Collapse; Indigenous Perspectives on the End of the World; Physical Anthropology & Archaeology: Responses to Modern Disasters; and Open Sessions for Individually Submitted Papers.

In keeping with the conference theme, the plenary speakers will speak on topics inspired by the Four Horsemen of the Apocalypse. Confirmed speakers include Fekri Hassan, Ann Herring, Phillip Walker, and Joseph Tainter. Undergraduate and Master's students are invited to submit their papers for consideration for the Bea Loveseth Award. This is a $200 prize made in memory of Bea Loveseth, a former President of Chacmool. Papers must be submitted to the Selection Committee no later than November 1st.

Contact: Session topics and abstracts, Larry Steinbrenner, Program Chair, e-mail: <lsteinb@ucalgary.ca>; General inquires, Meaghan Peuramaki-Brown, Conference Coordinator, e-mail:< chacmool@ucalgary.ca>; Department of Archaeology, University of Calgary, 2500 University Drive NW, Calgary, AB, T2N 1N4; tel. 403.220.7120; fax 403.282.9567; Web site: <www.ucalgary.ca/UofC/faculties/SS/ARKY/Chacmool/chacmool.html>.

THE MIDDEN

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