THE MIDDEN

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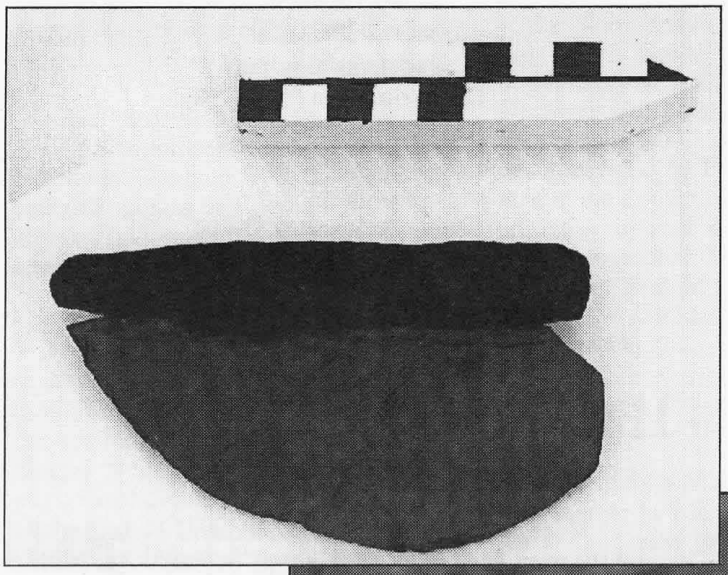

INTACT GROUND SLATE KNIFE

See details on inside front cover.

THE MIDDEN

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Sept. 9: **To be announced**

FRONT COVER:

Hafted ground slate knife found two months ago on a Harrison River beach at the Scowlitz site (DhRl 16) near Chilliwack. Dr. Michael Blake, who is currently excavating with the U.B.C. field school in a "dry" area of the site, is arranging for AMS dating on the knife. This is the first stone tool with a wooden haft recovered by archaeologists in the Lower Mainland.

The stone blade (117 x 56 x 2.5 mm) fits snugly into a slot in the wooden haft (116 x 19 x 14 mm). The tight fit and the composite nature of the artifact pose a considerable challenge for conservators. The knife is currently undergoing treatment at the Canadian Conservation Institute (CCI) in Ottawa.

Material at the site is being collected with the consent of the Sto'lo Tribal Council. See "The problem with wet sites. . ." p. 2.

Photo credit: Brian Thom

NEWS ITEMS

INGRID'S BASH

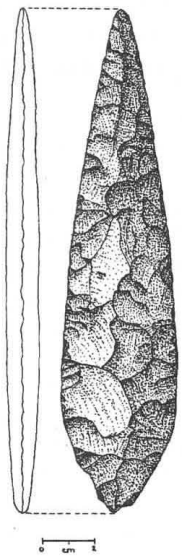
INGRID NYSTROM, THE DEPARTMENTAL Assistant in the Archaeology Department at Simon Fraser University, retired in February after 18 years with the department. She will continue to work at the department on a one year post-retirement contract and is currently on duty with the field school in Tonga.

The department held a retirement party for Ingrid that coincided with the Northwest Conference held at SFU this year. All present and past students, faculty and staff were invited, and about 300 attended.

To mark Ingrid's retirement, and in recognition of her many years of service in the department and the help she gave to untold numbers of students that went through the programme, an undergaduate student bursary was named the "Ingrid Nystom Bursary." The bursary was created during the University's 25th anniversary in 1991, when staff and faculty in the department contributed to a self-perpetuating fund which will be awarded annually to an undergraduate student to help cover travel expenses to pursue research.

PLEASE NOTE:

The illustration of the basalt point from DkSo 6 in Yvonne Marshall's article in the April 1992 issue should have been credited to Marjorie Dunlop.



HARLAN SMITH REVISITED

AT THE TIP OF THE SAANICH Peninsula, Morley Eldridge and Alexander Mackie of Millenia Research conducted impact assessments at the North Saanich Site (DeRu 1) on Blue Heron Road, North Saanich. Part of this important village site on Tseheum Harbour was destroyed by a housing development. The North Saanich Site was excavated by Harlan Smith at the turn of the century, and was owned subsequently by rock art expert, collector and photographer, Francis (F.J.) Barrow (subject of Beth Hill's *Upcoast Summer*, reviewed in *The Midden*, February 1986).

NO SHELL HERE

EXCAVATIONS WERE CONDUCTED LAST summer by I.R. Wilson Consultants at site DeRw 16 on the south side of the river at the Cowichan Reserve near Duncan. A single accelerator date taken from calcined mammal bone found 20-25 cm below the surface places the site at 3510 ± 110 years. An artifact assemblage supporting these dates suggestive of early Locarno, includes a facetted ground slate point, octagonal in cross-section and about 11 cm long.

Not a midden but rather a lithic scatter, the site's primary function appears to have been lithic procurement as indicated by bipolar and simple flake cores, but few completed tools. Raw material for the cores was likely taken from the gravel bar in front of the site.

A secondary function was likely that of a late summer/early fall fishing camp as evidenced by the presence of twisted jawbones characteristic of spawning salmon.

Directly across the Cowichan River, DeRw 17 is still undated, but contains an artifact assemblage suggestive of the earlier Charles phase, with a complete absence of ground stone.

MORE FUN THAN A THESIS?

QUENTIN MACKIE PUT HIS THESIS-writing aside for a week in March to direct an excavation for Millenia Research at the Willows Beach Site (DcRt 10) in Oak Bay, near Victoria. The construction of a municipal playground threatened part of the site, which had yielded ritual burials in previous excavations. Although high expectations were entertained, very little midden was encountered. For the most part, excavations revealed disturbed cultural material.

The dig was notable for the high level of voluntary participation. The Victoria chapter of the A.S.B.C. volunteered, as did Donald Mitchell's Pacific Northwest Archaeology class from the University of Victoria. Songhees people visited the site, as did several classes from neighboring schools. These visits were organized by public interpreter, Beth Bedard of Millenia Research. The excavation was funded by the municipality of Oak Bay.

(More News Items on page 2)

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FOR ASPIRING ARCHAEOLOGISTS

After a hiatus of eight years, in February of 1991 the Museum of Archaeology and Ethnography at Simon Fraser University began offering school programmes once again (the Museum's Curator of Education position was lost during the budget cutbacks in 1982).

The programmes are targeted for grades 1-3, 5 and 7, but can be modified for other age groups. Topics include:

1. Early Hominids
2. Forensic Investigation
3. Discover the Past (Archaeological Techniques)
4. Inuit and Haida Games
5. Native People and the Environment

The sessions are conducted by graduate and undergraduate students in the department. The exercise, very successful in the last few semesters, will be finishing in June, but will be starting up again in the fall.

Further information can be obtained by contacting Barbara Winter at 291-3325.

THE PROBLEM WITH WET SITES...

An earlier scouting expedition for a site for UBC's field school this summer recovered a piece of basketry washing out of the riverbank at the confluence of the Fraser and Harrison Rivers. A ground slate knife, complete with haft, was discovered lying intact in the river at the foot of the bank.

At the request of the Scowlitz band and the Sto'lo Tribal Council, UBC's field school, directed this summer by Professor Michael Blake, will spend the last week of May and the month of June digging at the site (DhRl 15/16). The freshet of the Fraser has already covered the banks and any further perishables that might be washing out, but several large "burial" mounds (DhRl 15) located on ALCAN property abutting the Scowlitz reserve will be explored. Evidence of pit houses on a small nearby island (DhRl 16) on reserve property are already filling with water.

Since access to the site is by boat, no public interpretation will be offered.

ARTICLES TO LOOK FOR

Test excavations of subtidal deposits at Montague Harbour, British Columbia, Canada — 1989.

by N. Alexander Easton and Charles D. Moore.

The International Journal of Nautical Archaeology, Vol. 20, Number 4, 1991.

ASKING THE RIGHT QUESTIONS

by Grant Keddie

ONE OF THE THINGS I FIND intriguing is the attempts some archaeologists make in trying to fit an artifact collection that is obviously too small, into poorly supported cultural phases. One or two widely divergent radiocarbon dates from a site serve as evidence for a continuous occupation of several thousand years.

We seem to be preoccupied with having to fit everything into a nice neat evolutionary scheme when, in fact, human cultures rarely follow such continuous sequencing in environmentally rich areas. In the Gulf of Georgia it is most likely that a diversity of cultures moved from different directions, at different times, to merge with and/or displace each other over and over again.

...basic questions about the spatial and temporal boundaries of sites...

The cultural phases established in the 1960s and 70s are based on poorly dated and stratigraphically questionable assemblages. We have further "refined" these phases and their associated artifact classes, in turn, by moving from partially dated assemblages, to assigning artifacts to phases based on assumed relationships of artifact types to a particular phase.

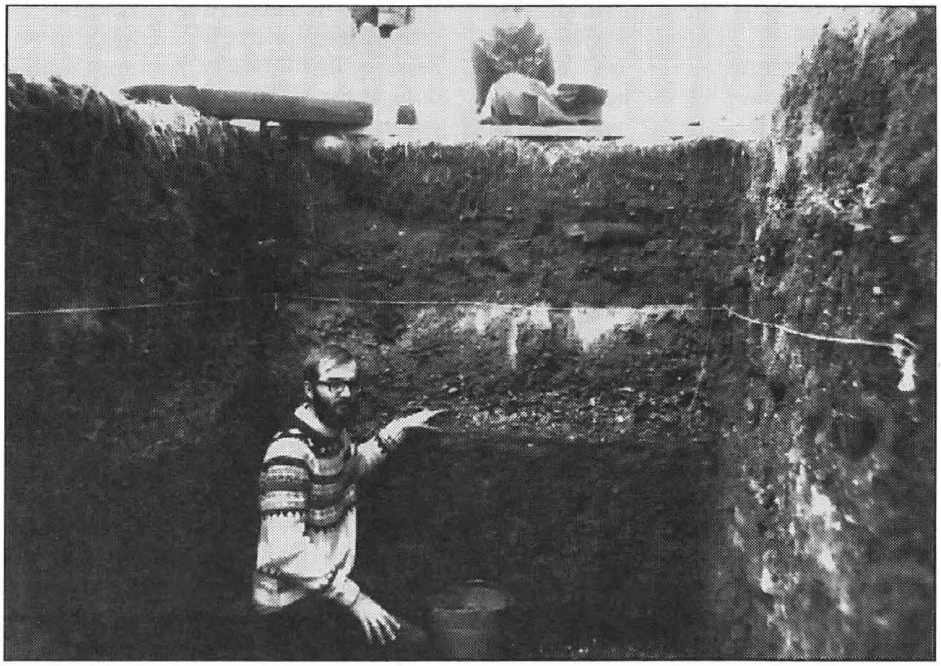
Evidence of culture change tends to get blurred when we take artifact assemblages from one site out of context with other sites in the local environment, and make comparisons with artifacts from more remote areas.

Making broad general statements about cultural development by observing the data we have on hand is one thing. Comparing sites at different locations in the Gulf of Georgia to define specific phases is dangerous. Yet this is too often done when the specific stratigraphic sequencing at individual sites is not yet completely understood.

Important details are lost as we try to rush, too quickly, toward understanding the big picture. Both minimum and maximum radiocarbon dates from stratigraphic layers containing specific assemblages should be obtained from several sites in a *local* area before we can make the broader artifact comparisons used to define phases.

While it is true that the cost of radiocarbon dates has hampered our effort in this direction, archaeologists have not thought carefully about what they should date and why. Many large shell midden sites are not uniform through time and space. For both scientific and management purposes we must first answer basic questions about the spatial and temporal boundaries of sites, especially the large deep shell middens threatened by city development.

For example, in Oak Bay the Willows Beach site (DcRt 10), which is several city blocks long, has a distinct lower zone near the southern part of the site excavated by Greg Monks in 1970. This lower zone has been dated to 2700 years ago.



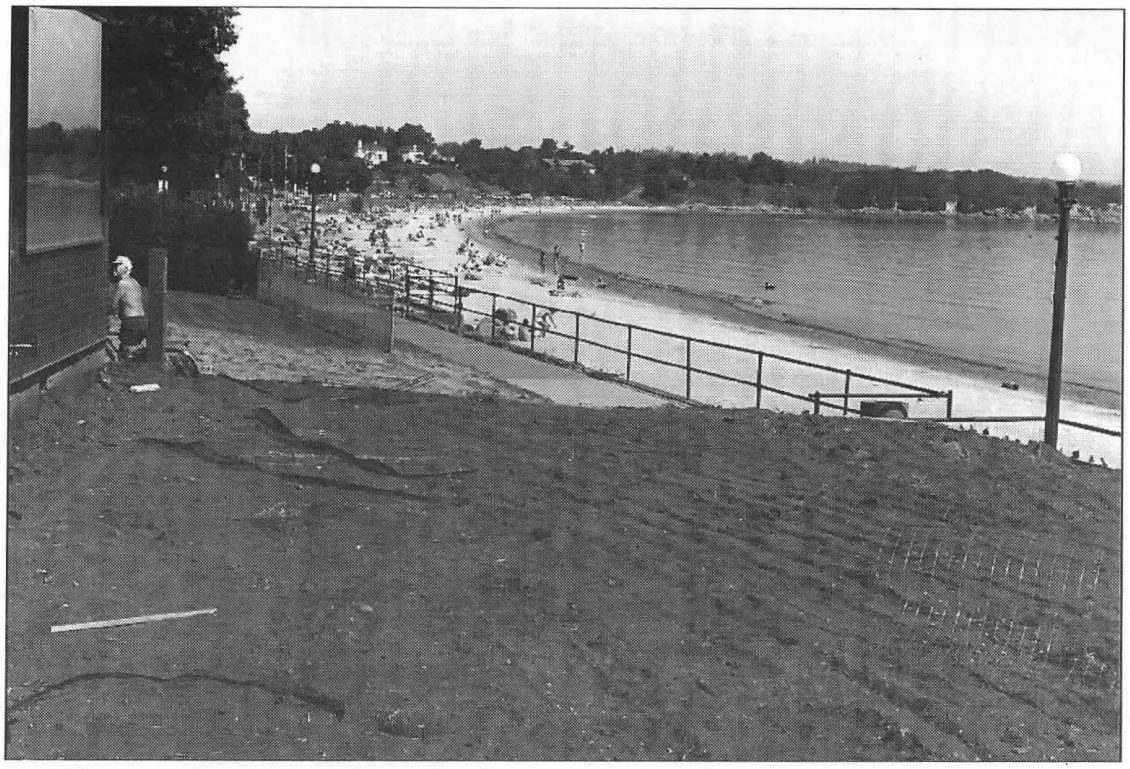
The Maplebank site extends three city blocks along Esquimalt Harbour. There is a 450 year discontinuity between the very distinct dark lower zone shown in this 1976 excavation and the bottom of the zone above it.

The artifact assemblage for the zone has been described by Ray Kenny and can be used comparatively with similar, dated assemblages. However, we still do not know the time boundary between the lower and upper zones. Therefore, we do not know if there was a relative continuity of people living at the site or if the site was abandoned for a period. A 300-year old date from the middle of the upper zone does not help us in this regard.

I have dated the *lowest* cultural deposits at two locations at the north end of this site to later than 1700 years ago. This indicates that a much larger area of Willows Beach was used in these later times. The documentation of cultural features in several projects directed by Morley Eldridge, and my own observation of various construction activities have shown that there is a lesser concentration of cultural materials not only at the north end of the site, but in all upper deposits throughout the site. Since it is more exposed to storms and has a sloping, erosional shoreline, this northern end of the site would be the least likely part of the site on which to build homes and in which to bury the dead. These facts suggest a more sporadic, less continuous use of Willows Beach in its later occupation than is evident earlier from the more concentrated lower deposits

revealed in Monk's 1970 excavations.

In Esquimalt harbour the Maplebank site (DcRu 12) also has a distinct lower zone starting at 2800 years, but with a termination date for the lower zone at about 2050 years ago. Radiocarbon dates show that there was a relatively continuous occupation between these two dates. Dating of the bottom of the next zone immediately above, shows that the site was abandoned for 450 years before it was reoccupied.



The Willows Beach site extends four city blocks along the popular waterfront in Oak Bay. The older part of the site is shown in the foreground in 1985 after a house was built on it.

We may ask, "Might this period of site abandonment also have occurred at the Willows Beach site?" If it did, then we have (as one alternative) the beginnings of a case for the replacement of one cultural group with another. In light of the fact that the older deposits at Willows Beach include major differences in artifact technology from the later deposits, the cultural-replacement hypothesis needs to be given serious consideration. If we cannot otherwise account for the missing time periods with "transitional" assemblages in other local sites, the cultural-replacement hypothesis might provide the best explanation for the differences between the zones.

Many researchers have assumed that long-term cultural continuity is a fact in this area. As a result they have made no serious attempt to give credence to evidence of discontinuity. As future work is done at the Willows Beach site, and others in the Gulf of Georgia, we should focus more on trying to answer the important questions of relative site location and site continuity to provide a context for artifact assemblages, and not be overly concerned (at this time) with plugging into phases.

Grant Keddie has been a curator in archaeology at the Royal B.C. Museum for the past twenty years. His many research interests include the cultural history of the Pacific Rim, artifact technology, and the ethnohistory and prehistory fo the southern B.C. coast.

PERMITS

Issued by the B.C. Archaeology Branch, March-April, 1992

1992-26 Morley Eldridge: impact assessment, DdRu 1, Blue Heron Road, North Saanich.
1992-27 Joanne Curtin: research excavations, DgRw 199, Gabriola Island.
1992-28 Morley Eldridge: monitoring, Parksville Flats, Englishman River Estuary.
1992-29 Ian Wilson: research excavation, Wellington (DhRx 16), Vancouver Island.
1992-30 Geordie Howe: impact assessment of log dump, Buck Channel, Queen Charlotte Islands.
1992-31 Bjorn Simonsen: monitoring of construction activity at Alderbury Sands development (DiSc 32), near Qualicum Beach.
1992-32 S. Sauer: excavations, O'Keefe Ranch, Vernon.
1992-33 Mike Rousseau: impact assessment, Stein River Water Project.
1992-34 Bjorn Simonsen: impact assessment, Scheidam Flats, KamloopsDistrict.
1992-35 Mike Rousseau: impact assessment, near Lillooet.
1992-36 Jean Bussey: impact assessment of bridge replacement and approach realignments, Crawford Creek, Kootenay District.
1992-37 W. David Hems: inventory of surface features, Lindeman City, and condition report of sites at Bare Loon Lake and Bennett City, Chilkoot Pass, Cassiar District.
1992-38 Richard Brolly: monitoring of construction excavations, Mackenzie Avenue, Crescent Beach (DgRr 1).

B.C.'S HERITAGE LEGISLATION:

ARCHAEOLOGICAL SITE PROTECTION

by Brian Apland

LEGISLATION DESIGNED TO PROTECT ARCHAEOLOGICAL SITES IN BRITISH Columbia is currently under review as part of a broader interest in upgrading legislative support for the protection and conservation of heritage resources in the province. The review began in 1988 with Project Pride, a public forum process, and has progressed through several stages of public discussion and white papers. It is imperative that considerable thought be put into any proposed legislation to avoid the pitfalls which have plagued past Acts.

The first legislation to protect any kind of archaeological sites was enacted before B.C. joined Canada. In 1865 the Colonial Government passed the INDIAN GRAVES ORDINANCE (IGO) which made it an offence to

> *steal. . . cut, break, destroy, damage or remove any image, bones, article, or thing deposited on, in or near any Indian grave in this Colony, or induce or incite any other person or persons to so do, or purchase any such article or thing. . . knowing the same to have been so acquired or dealt with.*

The IGO was considered necessary to address widespread theft and vandalism of Native graves by settlers and gold prospectors. The federal government subsequently repealed it under the Revised Statutes of 1886, although there is no evidence of complimentary repeal by the provincial government.

It was not until 1925 that B.C. first brought in its own antiquities legislation, the HISTORIC OBJECTS PRESERVATION ACT (HOPA), designed primarily to protect petroglyph and pictograph sites which had caught the fancy of the Provincial Secretary. As noted in that year's annual report of the Provincial Museum of Natural History (now the Royal B.C. Museum):

> *The Honourable William Sloan. . . has taken a great interest in the preservation of Indian petroglyphs or rock carvings, which were made by old aborigines of the Coast region of British Columbia. . . With this in view the Honourable Minister had an Act passed by the last sesson [sic] of the Legislature which provided for the preservation of historic objects, as it has been found that from time to time some unscrupulous persons have defaced portions of these most interesting and historic carvings.*

Of the 16 designations made under HOPA by the end of the 1940s, only ten were for archaeological sites (all "rock art"). How much protection the designations were able to effect, however, is questionable. Petroglyph Park in Nanaimo, for example, which accounted for two of the designations has suffered considerable vandalism over the years.

The 1950s was a pivotal decade in the movement to recognize and protect archaeological resources throughout the province. Interest in the protection and management of archaeological resources in general did not receive much attention until 1950. Wilson Duff, an assistant in anthropology at the B.C. Provincial Museum, expressed concern for the protection of sites threatened by major hydroelectric projects being planned across B.C.

The 1950s was a pivotal decade in the movement...

Duff sent a memorandum to the Honourable W.T. Straith, the Minister responsible for the Provincial Museum, who forwarded it to the Minister of Lands and Forests, the Honourable E.T. Kenney, with immediate results.

> *I have read the memorandum of the Assistant in Anthropology. . . with reference to the preservation and salvage of threatened archaeological sites of man's [sic] occupation of the country, and I am in full sympathy with the necessity and desirability of doing so. . . I have therefore given direction to the Comptroller of Water Rights to inform the Provincial Museum of all proposed flooding projects of sufficient magnitude to have any affect on such relics.*

On the federal front Duff's correspondence with the National Museum brought the following reply from D. Leechman at the Museum.

> *I have been in touch with two or three people concerning this matter of legislation and feel that the best method of attack will be to take the provinces one by one. At the moment British Columbia seems more interested than any other province and I should like to make an effort to get legislation passed there first.*

In agreement with Duff's suggestion, Charles E. Borden at the University of British Columbia added his voice:

> *I have given some thought to the proposed legislation. . . In general, I am in agreement with Wilson Duff's suggestion.*

A letter to Duff in 1951 from Borden stated his opinion that four major objectives were crucial: 1) protection of archaeological sites from abuse, 2) the need to make some sites permanent monuments, 3) regulation of the activities of "outside archaeologists", and most urgent, 4) provision for the investigation of sites threatened with destruction by development. Borden's last point may have paved the way for the first archaeological resource management programme in British Columbia (and possibly Canada) — the 1952 Nechako Reservoir study in Tweedsmuir Park.

Acting immediately, Duff wrote to E.T. Kenney, the Minister of Lands and Forests to set it up:

> *I have made full use of your very kind offer of the cooperation of your department, and have prepared the enclosed memorandum which summarizes the situation and outlines the steps necessary to meet this emergency.*

Realizing that neither the Provincial Museum nor the University of British Columbia had the personnel or the resources to carry out the necessary

work, Duff proposed a partnership. The University would provide skilled personnel to undertake field work and report on it, while the Museum would assist in planning, carrying out complementary studies (i.e., ethnological studies), and publish the results. Funding would have to be made available by special grants. ALCAN Ltd. funded the Tweedsmuir project.

During the 1950s relatively high-profile projects such as the Tweedsmuir study and excavations at the Marpole site in Vancouver prior to the construction of the Fraser Arms hotel raised public appreciation of the need to protect archaeological sites. It would take, however, another ten years for actual legislative changes to occur.

. . . creation of the Provincial Archaeologist in 1972 . . .

Continued lobbying by Duff, Borden, and other archaeologists, as well as local amateur organizations such as the Vancouver Historical Society and B.C. Historical Association, eventually led to public demands for the protection of B.C.'s archaeological sites. In 1959 an editorial in the Vancouver Sun declared,

> *Premier W.A.C. Bennett will be responsible for every prehistoric site destroyed in B.C.'s continuing industrial expansion and proposed vast hydroelectric power developments. He will be to blame because he has not brought in an antiquities act to protect them.*

The following spring of 1960 the ARCHAEOLOGICAL AND HISTORIC SITES PROTECTION ACT (AHSPA/1960) was enacted. The Act provided the first strong legislative mandate for archaeological site protection. Not only did it protect rock art sites, but also

> *any Indian kitchen-midden, shell heap, house-pit, cave, other habitation site, cairn, mound, fortification, or other structure, or other archaeological remain on Crown lands, whether designated as an archaeological site or not.*

Except for the catch-all "other archaeological remains," this protection applied both on both public and private lands. Although drafting problems inhibited effective enforcement of this statute, its intention was astonishing. Most archaeological sites went from being unprotected under the previous legislation, to being automatically protected under the AHSPA/1960.

The concept of providing legal protection for archaeological sites, let alone automatic protection, was a very radical idea for the time. Even today, statements of that nature elicit cries of "draconian measures" in some quarters. A tribute to British Columbians' growing appreciation of the province's archaeological resources, this legislation was passed unanimously by the legislature, as have been subsequent heritage statutes.

The AHSPA/1960 did more than establish protection for archaeological sites. It also created the first provincial body specifically devoted to advising the government on matters concerning archaeology. The Archaeological Sites Advisory Board (ASAB) held its inaugural meeting on August 5, 1960, with Wilson Duff (Chairman), Charles Borden, Willard Ireland, and Lawrie Wallace (Deputy Provincial Secretary) in attendance. Archaeology in British Columbia was co-ordinated and regulated throughout the '60s by the ASAB which officially met only eleven times during that period.

Minutes of the Board indicate attention was initially paid to raising awareness and understanding the new legislation by the general public, as well as to developing a permit system to regulate activities on archaeological sites throughout the province. The ASAB soon discovered that having legislation to protect sites was a far cry from actually protecting them. Their third meeting in 1961 recorded,

> *The attention of the Board had been called by amateur agencies to abuses of Middens at Campbell River, Nootka Sound and Zeballos areas. The opinion of the meeting was that this situation called for the investigation and inspection by a qualified person.*

The first provincial archaeological permit, issued in 1960-61 for Borden to undertake excavations on "Indian Reserves" near Chase revealed a problem which was to absorb much of the Board's time.

> *The Departmental Legal Advisor in consultation with the Deputy Minister of Justice has recently advised us that the British Columbia Archaeological and Historic Sites Protection Act is inoperative within the limits of Indian Reserves in British Columbia.*

Although the study was supported by a Band resolution, the question, still unclear today, was whether or not provincial permits are valid on lands under federal jurisdiction.

Shackled by limited funding (an annual budget of $8,000 in 1961, and only $15,000 by 1970) and an inability to convince the government to employ a full-time archaeologist, the ASAB was forced to implement the majority of its programme administration using partnership arrangements. As with the Tweedsmuir project, this was accomplished initially using the Provincial Museum and the University of British Columbia, and later almost entirely with the University of Victoria.

Two external funding arrangements negotiated by the Board, however, became relatively permanent. The first was worked out with the B.C. Hydro and Power Authority to sponsor survey and assessment studies in conjunction with the Arrow Lakes hydroelectric developments. The second partnership involved the Ministry of Transportation and Highways to underwrite necessary archaeological assessment studies associated with their construction projects throughout the province. Both of these agencies, in cooperation with the Archaeology Branch, continue to fund necessary archaeological resource management programmes today.

In 1971, with governmental expansion and restructuring of provincial agencies responsible for land-use planning and resource management, the ASAB renewed the call for a full-time staff archaeologist:

> *Board members were unanimously agreed that the position of Provincial Archaeologist should be created immediately in light of the great increase in archaeological projects. . . also the need for much more salvage archaeology to keep pace with its rapid expansion of communications networks and the increase in natural resource exploitation.*

The creation of the Provincial Archaeologist's Office in the spring of 1972 marked a subtle but profound shift in attitude among those concerned with archaeology. With an agency in government mandated to look after archaeology, all problems in the discipline were perceived to be its responsibility. Expectations soon exceeded the capabilities of the Office to meet them. Public pressure on government to ensure adequate protection and conservation for archaeological resources was redirected to the Office of the Provincial

Archaeologist, or simply dropped in the belief that there was now someone to take care of everything.

However, government policy and support more often follow the wishes conveyed by the electorate, rather than recommendations from bureaucratic officials. The established bureaucracy is normally looked to for recommendations to address public concerns, rather than to promote them. Quickly, the new Office of the Provincial Archaeologist found itself trying to be everything to everybody.

A new Act of the same title replaced the AHSPA/1960 in the spring of 1972. The AHSPA/1972 made no significant changes to the range or scope of sites to be protected except to define "site" to include "land covered by water," thus including shipwrecks. It also extended the potential for "heritage" designation to objects as well as sites.

Ironically, in restructuring the paragraph on automatic site protection, an unfortunately placed comma raised legal ambiguity about the protection of sites on private lands. At the same time, the use of "heritage designation" for sites that were not of a protected type was constrained by a new provision that "where it is shown that the value of land is diminished by reason of the designation," the minister shall pay compensation to the owner of the property.

In the fall of 1977, the AHSPA/1972 was replaced with the current HERITAGE CONSERVATION ACT (HCA). The focus of the new act was to combine the existing heritage agencies into one branch, and establish the new B.C. Heritage Trust as a quasi-autonomous agency. The Provincial Archaeologist's Office was renamed Resource Management Division of the Heritage Conservation Branch (later to become simply the Archaeology Branch).

With the HCA, essentially the same list of site types which first appeared in 1960 remain the only sites with automatic protection. Although the legally indefensible "other site or object" and "mounds" categories were dropped, some tighter limitations were created. Petroglyphs, pictographs, burial places and skeletal remains are now required to be of "historical or archaeological" significance. Cairns must be of "North American Indian" construction. The language of the new Act did, however, clarify previous ambiguity over protection of sites on both public and private land.

We must do more than hope . . .

Caught between legislative limitations and budget restrictions in the early 1980s, the Archaeology Branch focused on the powers of persuasion of environmental protection legislation, instead of the HCA, to effect archaeological resource management. The Branch gained a presence on the Energy Project Review Process, Mine Development Steering Committee, and Major Project Review Process. It developed a close liaison with the Ministry of Transportation and Highways, the Provincial Coroner's Office, and many other agencies.

Such access has enabled the Branch to advise these other regulatory agencies to support archaeological resource management. This approach lead to development of the Archaeological Resource Impact Assessment and Management Process throughout the 1980s, and is responsible for much of the archaeological work done in the province over the past decade.

In March 1990, the provincial Cabinet authorized the release of a "white paper" entitled "Toward Heritage Legislation." In bureaucratic parlance, a white paper is not just a discussion of objectives or options; it is a specific legislative proposal. In this case the white paper comprised detailed instructions for a comprehensive overhaul of the provincial heritage legislation. A year later, a second white paper was released which included the text for the legislative changes.

We must do more than hope that the 1990s will bring us a new Act which will provide more effective tools for archaeological site protection and conservation. This goal will only be achieved of the archaeological community (avocational as well as professional), aboriginal peoples, and other interested parties pull together and become meaningfully involved in the process.

BIBLIOGRAPHIC NOTE: All letters cited are on file with the Archaeology Branch, Victoria.

Brian Apland is the Provincial Archaeologist and Director of the Archaeology Branch in Victoria.

NEW PUBLICATIONS

A Time of Gathering: Native Heritage in Washington State.

by ROBIN K. WRIGHT, ED.

University of Washington Press, 1992.

248 pp, 205 illus (90 in colour), drawings, maps, bibliog, index, 8 1/2" x 11". US$ 55.00 [cloth]. US$ 29.95 [paper].

An account of the history and ethnography of the diverse groups of the Native peoples of Washington state through personal accounts and articles by Native authors, as well as non-Native. A comparison of Plateau and Coastal cultures. Includes reminiscences of place names, basketry, beadwork, traditional houses and canoes, music and traditional stories.

DEBITAGE

We can now look forward to news about the University of Victoria, the Royal British Columbia Museum, and the Archaeology Branch among other things. **Richard Mackie** from the History Department at the U.Vic has agreed to act as correspondent to *The Midden* on the Victoria front. Contact him with bits of news, debitage, or other items of interest in the Victoria area at 656-4291.

. . . From the RBCM: **Gay Frederick**, Chief of Human History, is coordinating the preparation of a report on the Maplebank Site (DcRu 12) in Songhees territory in Esquimalt. Excavated for four field seasons in the 1970s, the site has not yet been written up.

. . . Culture is on the move! Although not physically, culture has moved from Municipal Affairs and Recreation and is once more back with Tourism. In governmental terms, "Culture" includes the Archaeology Branch. The new umbrella ministry is The Ministry of Tourism and the Minister responsible for Culture. The minister responsible is **Darlene Marzari**.

. . . And at U.Vic: **Quentin Mackie**, completing his M.A., successfully defended his thesis on the use and life history of ground stone celts from Coast Salish Sites. Quentin has been awarded a Commonwealth scholarship, and plans to enter the Ph.D. programme at the University of Southampton, England, this fall.

. . . Meanwhile at SFU, **Shannon Wood**'s M.A. thesis, "Tooth Wear and the Sexual Division of Labour in an Inuit Population," was accepted. Shannon is currently working as a Laboratory Instructor on the department's field school on Tonga. Afterwards, she has been contracted to map the Sigatoka Sand Dunes Site in Fiji.

. . . **Paul Prince**, another Masters student at SFU, was also successful in April in his defense of "A People with History: Acculturation and Resistance in Kimsqui." Three more archaeologists.

. . . Even prospective M.A. graduates are hard at work. **Rick Schulting**, an SFU grad student, won the CAA student paper competition for his paper entitled, "The Hair of the Dog: The Identification of a Coast Salish Doghair Blanket from Yale, B.C."

. . And **Sandy Sauer**, another M.A. student at SFU, will be conducting an excavation at the O'Keefe Ranch outside of Vernon, assisted by other SFU students. The excavation is in connection with Sandy's thesis.

. . . Not only M.A.s are prospective. **Dr. Catherine D'Andrea**, a paleoethnobotonist with research interests in the origins of agriculture in Japan and Africa, will be joining the faculty at SFU in the fall semester. Dr. D'Andrea completed her Ph.D. at the University of Toronto in January 1992, and is conducting field research in Egypt this summer.

. . . Another new archaeologist on the scene? No, it's just **Sandra Zacharias** in a new guise. A woman archer who appears to be shooting arrows in three different directions at once, framed by the letter "D," is incorporated into DEVA, the new name of her consulting company.

. . . Even avocational archaeologists are at work. A **well-preserved and complete basket** was found by an alert resident washing out of the bank of the Fraser River on a previously unrecorded site at Maple Ridge.

. . . A few weeks previously a Douglas College student salvaged a fragment of a **cedar bark mat** eroding from the beach at DhRq 19 in Coquitlam. Both finds were examined by a bevy of archaeologists, including Kitty Bernick and Phil Hobler who arranged for radiocarbon dating. Both are being treated at the RBCM Conservation Lab.

. . . And speaking of dates, those from the **Monte Creek** (EdQx 43) excavation last fall still prove consistent. Housepit 3, falling in place at 3970 ± 250 years ago, fits within the 4000 year old range along with the other dates from the site.

. . . By the way, the **SFU radiocarbon dating lab** is no longer operational. In fact it has been dissassembled. On the other hand, the **SFU Museum** has been updating some of its permanent exhibits and there are two collections organization projects now in progress.

. . . But what's happening this summer? **I.R. Wilson and co.** will be out at Departure Bay in Nanaimo this summer. They will arrive at the end of May for about 6 weeks through the end of June. Visitors are welcome and encouraged.

. . . **Denis St. Claire** will join Alan McMillan to continue co-directing the project he started with the Toquaht band on Barkley Sound.

. . . Unanswered questions still abound. Will Norm Easton be underwater at Montague again? What are Arcas' plans? Millenia? How about the other consulting companies? Is an excavation planned on the Charlottes? (Rumor says so.) What was James Baker looking for in his systematic data recovery at EfQu 17 near Scotch Creek by Shuswap Lake? Where was H. Krentz recovering human remains and associated artifacts? And what does the "H" stand for?

Stay tuned for the answers to these and many more questions in your next issue of *The Midden*.

THE WATERS OF MONTAGUE HARBOUR

MORE FINDINGS FROM DOWN UNDER

by N. Alexander Easton

READERS OF *THE MIDDEN* (June 1991) will be familiar with my research interests in locating, excavating, and understanding submerged cultural remains inundated by Holocene sea level rise on the B.C. coast. With generous funding from the B.C. Heritage Trust and the federal Department of Communication's Access to Archaeology programme, as well as superlative assistance from members of both the Underwater Archaeological Society of B.C. (UASBC) and the Archaeological Society of B.C. (ASBC), archaeological investigations of the submarine and intertidal sediments of Montague Harbour on Galiano Island continued in 1991.

The principal goals of the 1991 fieldwork were to:

1. explore in more detail the nature of the lower levels of the intertidal deposits offshore from DfRu 13, and obtain additional comparative data from other intertidal zones within the basin;

2. test the effectiveness of the use of a caisson structure to prevent slumpage within the underwater excavation unit;

3. improve the systematic sampling of the underwater levels of excavation;

4. obtain additional data on the nature of the lower levels of the underwater sediments.

Intertidal excavations were carried out at DfRu 13, DfRu 7, DfRu 22. Within the submarine excavation, located approximately 90 metres offshore of DfRu 13 at about 4 metres below tidal datum, an eight by eight foot caisson was constructed by connecting 4x3 foot, 1/8 inch thick iron plates with angle iron. The caisson [a four-sided, open-ended "box" to keep the walls from slumping into the unit] was designed to allow additional vertical extensions to be added as the depth of the excavation unit increased.

Two of these points were recovered ... at the base ... of midden deposits.

Excavation proceeded by 20 cm arbitrary levels. Two 20 cm diameter airlifts carried the excavated material to holding baskets at the surface of the water. This material was subsequently transported for wet-screening and examination on shore. The matrix of each quadrant was sampled using 25 cm diameter cores which were set into the sediments at the beginning of each level.

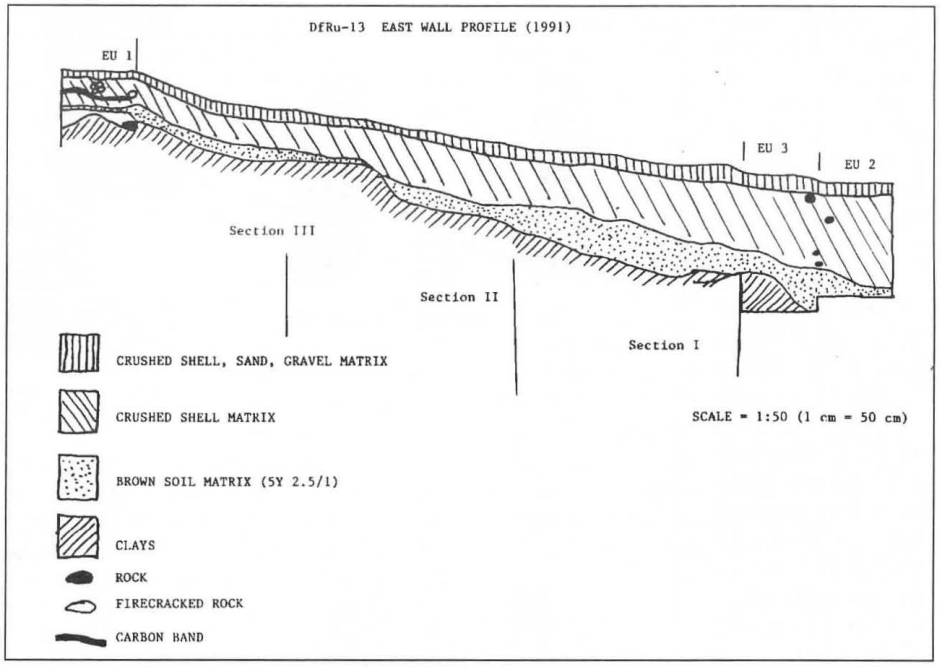


Figure 1. Main intertidal strata, DfRu 13, 1991.

The caisson was largely sucessful in preventing the type of contaminating slumpage which had reduced our confidence in previous seasons, although it did not entirely prevent the introduction of slumped material into the lower levels. Possibly due to differences in pressure between the area within the caisson proper and outside it, small amounts of sediments were constantly seeping in around the leading edges of the caisson. The only way to prevent this, in our view, is by ensuring that the leading edge of the caisson structure is always buried below the level of active excavation. This may not be logistically possible.

As in the previous season, public participation was an important component of the archaeology at Montague Harbour. Supported with funding from the Access to Archaeology Programme, two public interpreters greeted public visitors and tour groups at the site. Over 800 visitors were documented, including two local divers who toured the underwater excavation area.

Perhaps the most significant intertidal stratigraphic exposure in 1991 was the identification of what seem to be shell-free mineral soils at the base of the intertidal deposits and above the basal clays at DfRu 13 (see Fig.1). These shell-free soils seem very similar in colour and texture to soils currently located on the shore away from the main midden.

Over 60 lithic artifacts were recovered, including a stone fishhook shank, two ground bi-points (barbs for the shank?), a ground stone disk bead, several additional fragments of ground stone, a bone artifact reminiscent of a net gauge but quite small (2 x .75 cm), a ground ulna tool, and three chipped points. Two of these points were recov-

ered from the "mineral soils" layer at the base of the midden deposits (see Fig. 2).

Within the underwater unit we encountered a very interesting stratigraphic sequence. Not unexpectedly, the underwater sediments were dominated by benthic [flora or fauna of the bottom of the sea] bivalve remains; what was surprising was their concentration. Clamshells were literally packed against each other in considerable density. Their in situ position with valves joined and siphon end pointed towards the surface — the normal death position — suggests that at least some of these shells were naturally deposited.

Initial faunal analysis reveals the presence of some species which one would not expect to find within the submarine environment at the depths encountered. *Balanus glandula*, an upper intertidal barnacle, and *Macoma sp.*, the bent-nosed clam, appeared at depths of over two metres below the surface of the ocean bottom. A more complete description of the tentatively identifiable strata follows, with reference to the general underwater stratigraphic sequence outlined in Fig. 3.

The initial sediments, extending for some 10-20 cm, are comprised of marine silts populated with live benthic populations. Below this lie denser sediments containing a small population of live horse clams (*Tresus sp.*) and butter clams (*Saxidomous sp.*).

The next stratum is characterized by a concentration of the remains of dead clam species which, based on field observations, are mainly *Tresus sp.* This begins at about 50 cm below the surface and extends through to at least 180 cm, which is the extent of full unit excavation we completed in 1991.

While we were unable to complete the full excavation of the entire underwater unit, we did excavate a single 25 cm square "test" caisson to the basal clays to provide additional information on the remainder of the underwater sediments. At least one final level above the clays begins at about 210 cm below the surface where we recovered remains of the bent-nose clam, a small bivalve whose general habitat does not extend beyond about 10 cm below the surface. The submarine sediments ended on the clays between approximately 220 to 230 cm below the surface of the ocean bottom.

. . . an occupation . . . on now-submurged shorelines.

The apparent homogeneity of the sediments is broken by the introduction of discrete elements which may identify distinct stratigraphic layers which we believe the bivalves subsequently burrowed through. The first of these is a pebble layer at about 70 cm below the surface, encountered in all three submarine excavation units since 1989. The pebbles are 2-4 cm in diameter and generally rounded.

The next distinct stratigraphic component is defined by a notable increase in the relative number of large cobbles and sandstone slabs. Many of these have concreted bases, and in some instances carry whole remains of barnacle species. This level is found between approximately 90 to 125 cm below the surface of the ocean bottom. Towards the lower levels of the cobble layer extending for about 15 cm, the sediments are extremely hard-packed.

Below this "hardpan" level lay increasing floral-organic remains extending from about 130 cm through the remainder of the fully excavated sediments (180 cm). The most notable characteristic of the floral-organic level is the tremendous number of seed cones within it — over 2000 were collected. The level also contained numerous wood remains in the form of branches and twigs, many burned, and some planed pieces of wood which may have been cut or carved.

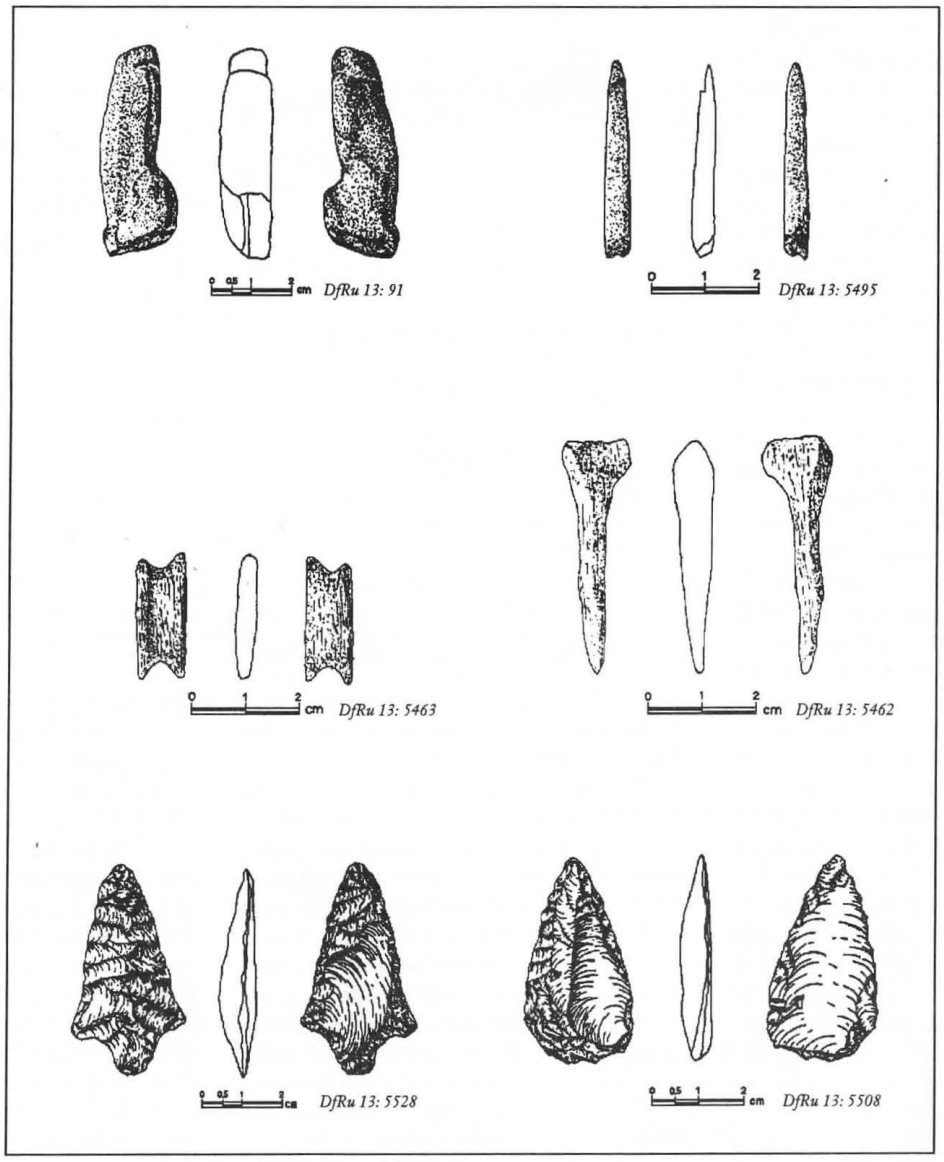


Figure 2. Selected artifacts from the intertidal excavation, DfRu 13, 1991. Top Row: ground fishhook shank, ground slate point (fishhook barb?). Middle Row: bone object (net gauge?), bone ulna tool. Bottom Row: chipped points, both from "mineral soils" level.

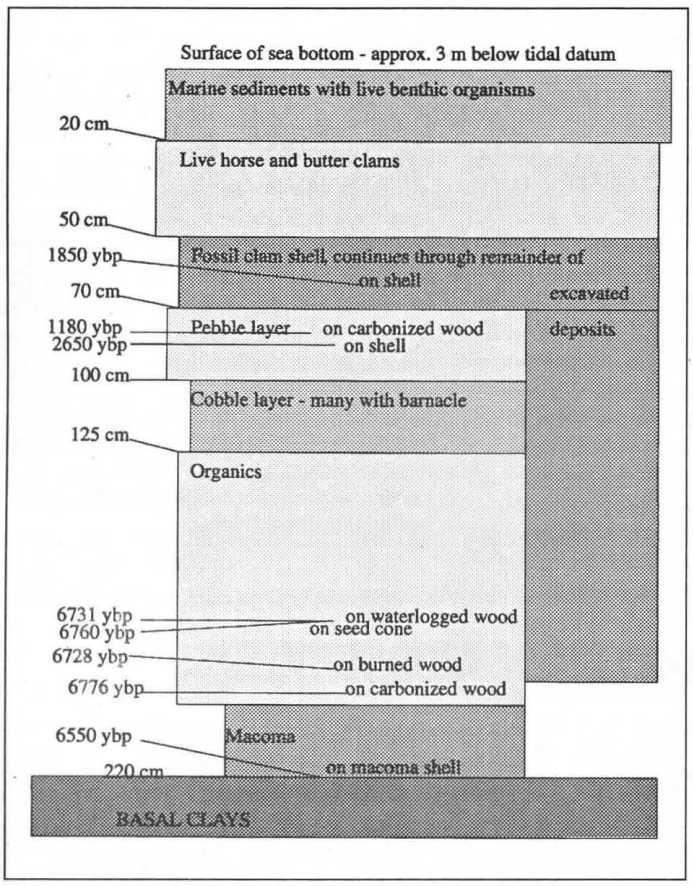


Figure 3. Main underwater stratigraphic units, DfRu 13, 1991.

The initial inventory of artifacts recovered from the underwater excavation exceeds 80 in total. Although a number of these are questionably debitage, unequivocal cultural material recovered included a chipped stone point, a stone disk bead, and the flaked tools illustrated in Figure 4. The number and range of artifacts demonstrates the fact that cultural remains are to be found within the submarine sediments of Montague Harbour.

While analysis of the data and materials recovered in 1991 is still going on, we can report on our progress to date and indicate our plans for additional analysis in the coming months. A series of radiocarbon dates have been obtained for various levels of excavation. At DfRu 7, the base of the deposits at 110 cm below the surface, have been radiocarbon dated to 1590 ± 90. This date is slightly older than a date of 900 ± 60 obtained for the basal deposits of the upper intertidal unit at DfRu 13 last year at 109 cm below the surface. We are also processing the mineral soil samples from DfRu 13 in the hope that dateable material may be obtained for this level.

Additional calibrated dates obtained for the underwater excavation unit are graphically presented in Figure 3. Clams from the middle of the deposit date to about 2500 years ago, the floral-organic deposits are about 6700 years old, while the bent-nosed clam population at the bottom seems to be about 6500 years old.

These dates are stratigraphically coherent. The apparent discrepancy between the floral-organic levels and the bent-nose clam level which lies below it can be accounted for, indeed expected in the hypothesized inundation of terrestrial deposits, since the shellfish would have buried themselves in the flooded terrestrial sediments.

The submarine deposits are clearly mixed by benthic bioturbation, and perhaps other factors determining site formation as well. The existence of recognizably discrete levels within the apparently homogenous fossil clam deposits suggests that the bioturbation may be restricted, to a greater or lesser degree, within specific depositional zones. Applying principles of superposition to the strata between the zones, this appears to be the case between the hardpacked cobble layer, and the floral organic and bent-nosed clam levels below.

Radiocarbon chronology for the marine deposits generally bear this out and also support one of our hypotheses — that we can expect to find evidence of a "reverse littoral sequence" in the underwater sediments. By this we mean that the lower levels of the deposits should exhibit evidence of terrestrial exposure. Above this should lie environmental indicators of a high tide zone, followed by middle and lower intertidal indicators, capped by relatively recent submarine sediments.

The generalized stratigraphy of Figure 3, bears this out to some degree. In particular, the existence of bent-nosed clam remains deeper than two metres in the sediments tells us that this level must have been within 10 cm of the intertidal surface at the time of the clams' occupation some 6500 years ago. In addition, considering the species' preference for brackish waters, the initial inundation of the overlying organic "terrestrial" deposits may have occured with- in a tidal lagoon environment in the basin.

That the "pebble" and "cobble" layers are possible remnants of an intertidal beach is reinforced by the existence of barnacle remains on the cobbles. However, since the beach pebble zone is usually higher up the intertidal column than the cobble zone, on the face of it, these layers do not agree with our expectation of a reverse littoral sequence. At present this sequence presents something of an enigma, as does the "hardpan" layer between the cobble and floral organic levels.

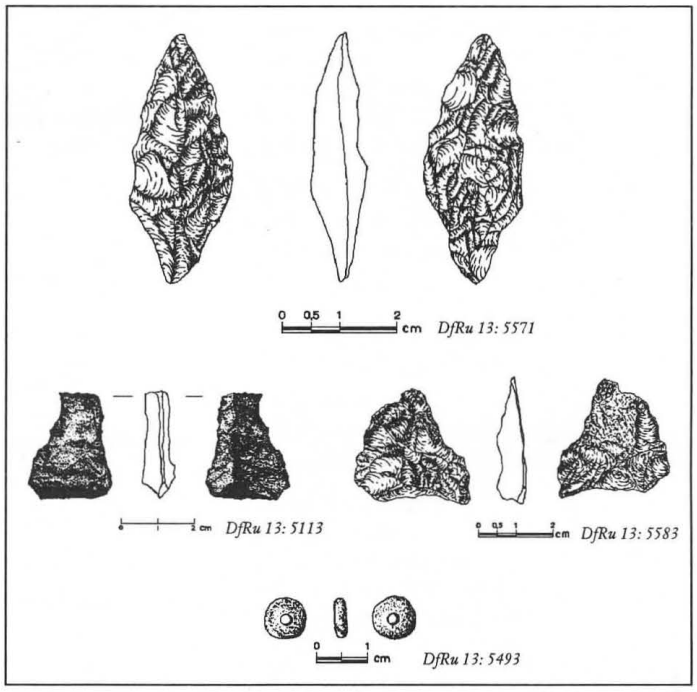


Figure 4. Selected artifacts from the underwater excavation, DfRu 13, 1991. Top: chipped stemmed point. Middle: retouched flake, thumbnail scraper(?). Bottom: stone disk bead.

The 1991 fieldwork has generated a considerable amount of new data with which to assess the nature, extent, and meaning of inundated cultural deposits within the Montague Harbour basin. The excavation has verified that there are, in fact, cultural deposits in the form of artifacts to be recovered from both the intertidal and submarine sediments within the harbour; and has expanded substantially, in both numbers and types, the artifact assemblages from each deposit. The data have also documented a fairly rapid transgression of the sea over the lands of the basin in the middle to late Holocene, and suggest that at least some of these cultural remains relate to an occupation during an earlier period of lower sea levels on now-submerged shorelines.

Within the intertidal excavations off DfRu 13, we have identified what seem to be shell-free terrestrial mineral soils related to an earlier period of lowered sea levels. Artifacts, including projectile points, have been recovered within this stratum. The dates of the floral organics from the underwater excavation unit are of the appropriate time range to fall within the current "gap" in the coastal archaeological record. If direct correlation can be demonstrated between this dated level and at least a portion of the underwater artifact assemblage, we will be in a position to begin to recognize and understand the coastal adaptations of humans in the southern Strait of Georgia during this period of time.

Currently our attention is focused on continued analysis of the underwater and intertidal sediment samples, which includes their separation for detailed identification of faunal elements, as well as chemical, micro-faunal and micro-floral analysis. Clearly, much remains to be done in order to understand the data we have collected. In response to the inevitable question, "What does it all mean?," we can only say, "We're not yet sure". This project is exploring an entirely new arena of investigation, and we must maintain a healthy skepticism of our initial interpretations while we seek new data and appropriate forms of analysis.

However, we *are* sure of this: there is material evidence of ancient occupations on submerged shorelines, not just at Montague Harbour, but along the full extent of the Pacific Coast. The only way we will ever come to understand is by getting in the water, recovering the evidence, examining the data, and applying our technologies and imaginations.

While we are working in the dark, in more ways than one, these challenges and their accompanying discoveries make the enterprise not only exciting but worthwhile. This is science on the edge of beyond. Who can say with certainty what it will bring?

Norm Easton is an ASBC and UASBC member who lives in Whitehorse, where he is Lecturer in Anthropology, Academic Studies, and Director of Research, The Northern Research Institute, at Yukon College.

MONTAGUE MUDSUCKERS

CALL TO ACTION

Past and potential members of the Montague Mudsuckers who are interested in participating in the 1992 excavations of intertidal and submarine deposits in Montague Harbour are advised that due to funding delays, fieldwork plans have been postponed to late July-early August, 1992.

All prospective participants are encouraged to contact Andrew Mason (734-5065 eves) or Charles Moore (275-5427) to receive further details and confirm participation.

ARCHAEOLOGICAL IMPACT ASSESSMENT CONSULTANTS

(UPDATED APRIL 1992)

THIS LIST HAS BEEN PROVIDED BY THE ARCHAEOLOGY BRANCH, MINISTRY OF TOURISM and Ministry Responsible for Culture. It contains the names of consultants who have identified themselves to the Archaeology Branch as being available to conduct archaeological impact assessment and management studies, as well as consultants with expertise in associated fields. All consultants on this list, with the exception of "affiliated consultants", are eligible to apply for archaeological inspection or investigation permits.

This list is provided for information purposes only. It is not intended as a statement of professional qualifications.

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THE MIDDEN

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