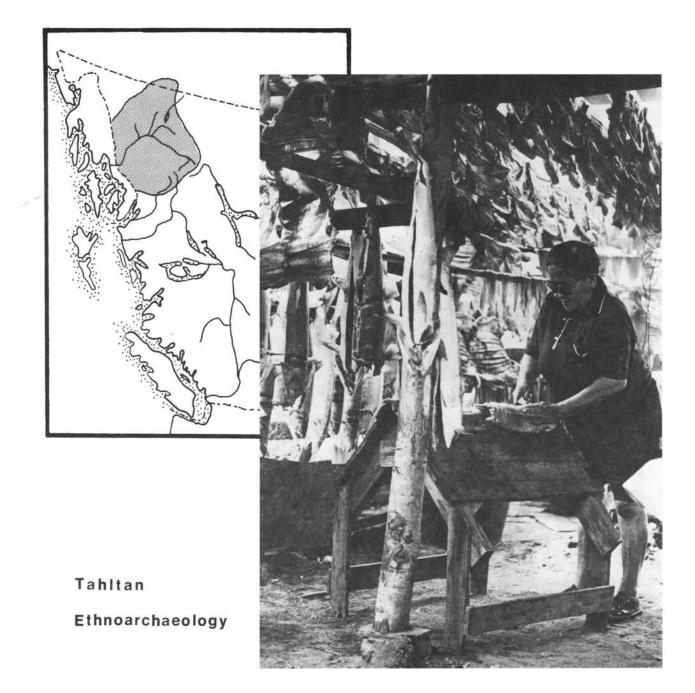
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The Midden

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Submissions and exchange publications should be directed to the Editor. Contributions on subjects germane to B.C. Archaeology are welcomed: maximum length 1500 words, no footnotes, and only a brief bibliography (if necessary at all).

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THE COVER: Preparing Stikine salmon for winter storage. S. Albright - photo, 1979.



The Society

Membership year runs September 1 - August 31. Fees: single - \$15; family - \$17; seniors - \$10; students - \$10. Address to: A.S.B.C. Membership Secretary, Box 520, Station A, Vancouver, B.C. V6C 2N3.

Meetings are held on the second Wednesday of each month (except July and August), at 8:00 p.m. in the Vancouver Museum auditorium.

Visitors and new members welcome!

May 16 Knut Fladmark: Charlie Lake Cave

June 13 Arnoud Stryd: Excavations at Ashcroft

NOTE: Change of meeting for May only: May 16 at the Maritime Museum

TAHLTAN ETHNOARCHAEOLOGY: A STUDY OF TRADITIONAL

SUBSISTENCE STRATEGIES IN NORTHWESTERN BRITISH COLUMBIA

by Sylvia Albright

This report presents a brief summary of graduate research conducted in the Stikine River area of northern B.C. Concerned with understanding the dynamics of prehistoric hunter-gatherer subsistence behavior and site formation processes, this study represents one of the first attempts to apply a relatively new approach, ethnoarchaeology, to archaeology in British Columbia.

Ethnoarchaeology is essentially ethnographic research, usually conducted by an archaeologist, on the manufacture, use, and distribution of material culture of a living group of people, which is directed towards solving problems of archaeological interpretation. Ethnoarchaeological approaches are especially useful in areas like British Columbia where a large proportion of the material culture of prehistoric hunter-gatherer groups was manufactured from organic materials, and where short term seasonal subsistence activities leave little in the way of visible archaeological remains.

In order to reconstruct a model of traditional subsistence and settlement patterns useful for the interpretation of archaeological sites in the Tahltan area, this research gathered data from a wide range of sources using a variety of methods. Relationships between physical environment, characteristics of flora and fauna of the area, and the technology and strategies used to exploit different resources were examined. Much information on environmental variables such as topography, climate, vegetation and fauna was obtained from government agencies including departments of Agriculture, Environment, Fish and Wildlife and the Geological Survey of Canada. Library study of historic accounts of early exploration and culture contact in the Stikine area was carried out to establish historical continuity of the Tahltan people in the study area and to determine the degree of influence of culture contact on traditional subsistence practices.

Fieldwork involved survey and mapping of ethnographic and archaeological sites in the area. A considerable amount of time was spent with Tahltan people recording oral accounts and in active participant observation of subsistence activities which are still being carried out in a traditonal manner. In this way, valuable data were gathered on technology and subsistence practices to supplement information gleaned from earlier ethnographic studies by Emmons and Teit.

Tahltan Subsistence Base

The The Tahltan are an Athapaskan people whose traditional territories include the entire drainage basin of the Stikine River as well as the upper sources of several neighbouring rivers such as the Nass, Skeena, Taku, and Dease Rivers. Lying within the rainshadow of the coastal mountains, the Stikine Plateau has a dry continental climate with extremes in temperature ranging from -50° C in winter to 35° C in summer. This upland plateau area provides excellent habitat for a wide range of large and small game including caribou, moose, sheep, goats, bear, beaver and marmots, and has been described by some wildlife biologists as the Serengetti of North America. Mt. Edziza, a composite volcano formed over a period of six million years, provides a source of good quality obsidian which was used locally in stone tool technology, and widely traded in prehistoric times.

Detailed knowledge and understanding of the environment, characteristics of each resource, and seasonal variation in abundance and availability were necessary to the aboriginal hunter for making decisions about when, where, and how different resources were to be exploited. While the environment supports a wide range of plant and animal resources, these have different potentials for fulfilling subsistence needs. Different animal species vary greatly in overall size, weight, fat content, and caloric yield, as well as the kind and quantity of raw materials which they provide. These factors combined with abundance and efficiency of exploitation determine which resources are commonly used.

A critical factor related to efficiency of exploitation is the fact that potential resources are not evenly distributed in space or time. The Stikine Plateau is characterized by a coarse grained environment with elevational differences in biogeoclamatic zones. Most resources are adapted to particular ecological niches within these zones. Seasonal characteristics of the environment affect the diversity, distribution, abundance, and reliability of the resource base. Seasonality is probably the most important single factor contributing to the patterning of subsistence activities and settlement locations of aboriginal hunter-gatherers occupying temperate and high latitudes. Some of the more obvious aspects of seasonality include the restricted period of availability of anadromous fish, migratory waterfowl, hibernating mammals such as bears and marmots, and the seasonal movements of ungulates such as caribou and moose.

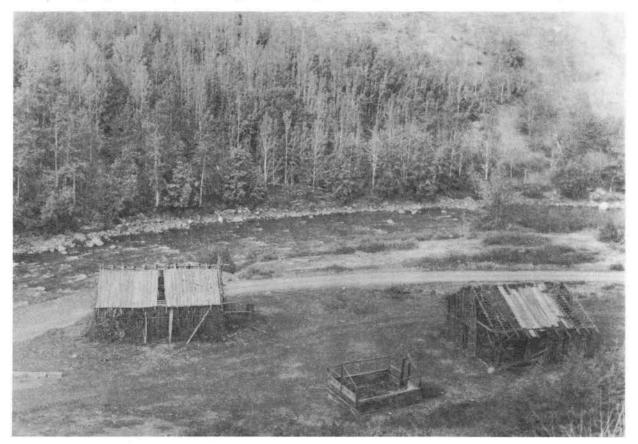
In coping with seasonal variation and long term fluctuations in resource abundance and availability, the Tahltan maintained a complex technology. They exploited a wide range of resources using tended and untended facilities including fences, weirs, traps, snares, and nets. Large quantities of food were procured, processed, and stored for use in winter or in times of emergency.

Seasonal Round

Predictable seasonally abundant resources were given first priority in scheduling subsistence activities. Large annual runs of anadromous salmon in the Stikine area provided a reliable staple food and permitted relatively large population aggregation. During the summer season of the salmon runs, Tahltan families congregated for about two months at permanent fishing villages located along major salmon producing rivers. A study of earlier ethnographic literature and discussions with Tahltan elders in the area today have identified over 30 salmon fishing sites within traditional territories. Most of these center around the middle Stikine and its two northern tributaries, the Tahltan and Tuya Rivers. Other villages are located on the Sheslay and Nahlin Rivers and the upper sources of the Nass and Skeena Rivers. All locations which have been investigated by means of survey have archaeological remains as evidence of their use during prehistoric times.

At these villages large permanent houses, constructed of spruce and pine poles with gabled roofs covered with spruce bark, were used as shelters and for drying large quantities of salmon. A variety of methods were used to catch salmon, including weirs, basket traps, nets, gaffs, and spears, depending on the local river conditions. Summer fishing activities involved communal effort and sharing of the season's products among members of the extended family. While men were responsible for construction of smokehouses, weirs, and fishing implements, and for the actual procurement of salmon, women were in charge of butchering and preparation of salmon for the drying process. Summer was also a time of ceremonies, feasting, and trading. At the close of the fishing season, bundles of dried salmon were stored away in cache pits in the vicinity of the village, to be used later in winter or in times of emergency.

In mid to late August, families dispersed to small seasonal camps in alpine areas for a period of two to four weeks to exploit a variety of mammal species which are in their prime and have accumulated layers of fat in preparation for winter. Women and children were involved in snaring marmots, ground squirrels, and ptarmigan, and collecting large quantities of berries during daily trips in the vicinity of the camps. Small groups of men and boys made expeditions of one to several days





Tahltan women scraping frozen hides. S. Albright - photo, 1980.

duration to hunt larger game such as sheep, goats, caribou, and bear: Large quantities of dried meat, berries, and rendered fats were stored in cache pits in the vicinity of fall and winter camps.

Major late fall and winter camps were located in protected forested vallyes where firewood was abundant, and close to caribou migration routes. Shelters at these camps were of the double lean-to style, made of poles covered with bark and boughs, and banked with earth. Caribou were most commonly captured in rawhide snares set at intervals in fences, often several miles long, and constructed at strategic locations along their migration routes. Both men and women of several extended families cooperated in driving caribou into snares. Caribou and moose were important not only for their meat but also for hides which were dressed for making clothing, babiche for snares and cordage, sinew for thread and twine, and antler and bone for the manufacture of a variety of tools and utensils. Perhaps one of the most exciting aspects of this research was to find that Tahltan women still manufacture their own stone tools for softening hides.

Stores of preserved and dried foods were relied on extensively during mid winter when weather conditions were bad and hunting poor. Leisure time in winter was spent in repair and manufacture of tools, snares, netting, ropes, and clothing. In late April families dispersed again to small seasonal camps located near good fishing lakes and streams. Large numbers of freshwater fish such as trout and grayling were caught and dried on temporary drying racks. Rabbits and grouse were snared in the vicinity of the camp, and a variety of vegetable foods were gathered and eaten fresh. Over 80 edible plant species have been identified in the Stikine Plateau area: it is suggested that greater use was made of plant foods in northern environments than has generally been recognized. Migratory waterfowl, beaver, and bear were also hunted in spring. Supplies of dried fish and beaver meat were transported to major winter sites for storage or to summer fishing villages for use during summer.

Conclusions

The seasonal model of Tahltan subsistence activities forms the basis for discussing factors affecting the formation and visibility of archaeological sites. Abundant and reliable food resources such as salmon and caribou allowed larger groups of people to aggregate for longer periods of time at certain locations. Thus summer fishing villages and major winter camps are the largest and most visible sites. Permanent shelters and facilities for processing and for storing large quantities of food are highly visible in the archaeological record. Notable features include rock outlines and post moulds of permanent structures and drying racks, hearth areas, and cache pits.

The complex technology used to procure most resources leaves little or no evidence in the archaeological record. Nets, weirs, fences, and snares, as well as implements such as gaffs and leisters, were all made of organic materials. The greatest concentration of stone tools and debris results from butchering and processing fish, meat, and hides in the vicinity of habitation structures at major camps. Traditional customs concerning the use and disposition of bones from animal resources influence the nature of faunal assemblages found at different sites. In a boreal forest environment with acid soils, where bone preservation is generally poor, the practice of burning bones in the campfire contributes to their preservation in archaeological context.

Observations at sites reoccupied on a yearly basis indicate that there is often lateral shifting of site use over time, as new structures are built and old ones used for storing personal gear. Activities related to procurement, processing, and storage of resources were dispersed over a large area of a camp or village. Often separate sites recorded during archaeological survey represent different activity areas which formed part of a single village.

In conclusion, this study demonstrates that ethnoarchaeological approaches can further our understanding of subsistence behavior and site formation processes and are important for interpreting the significance of different sites within the overall pattern of subsistence and settlement strategies.



AND

VALLICAN SITE SAVING CAMPAIGN: AN UPDATE

The campaign to save the Vallican Archaeological Site is doing well, but needs more support in order to realize its goal of establishing an educational park. (See the Dec. 1983 MIDDEN:Vol.XV,No.5:7-8).

The Vallican site is in a scenic location in southeastern British Columbia. Test excavations in 1981 revealed evidence of over 2,000 years of human occupation. According to archaeologist Gordon Mohs, it is the only site of its kind that still exists in either British Columbia or Washington. The property is part of a subdivision development and is currently on the market.

The letter writing campaign organized by Mohs has resulted in a referral to the B.C. Heritage Trust. The Trust will review public concerns regarding the site and make recommendations. The Vallican Archaeolgogical Park Society, formed by residents of the Slocan Valley, would like the government to officially designate the site and to allocate funds for purchasing the property. Rick Foulger, President of the non-profit Society, feels that the Trust is waiting to see if public concern extends to making personal contributions toward the purchase price. He believes that it does.

Donations toward the purchase and preservation of the Vallican Site can be sent to the Vallican Archaeological Site Trust, Box 36, Slocan Park, B.C. VOG 2E0. The Society is also selling memberships (\$5.00), and T-shirts with the Society's logo. Available from the same address.

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ASHCROFT SITE YIELDS EARLY DATE

Early this year ARCAS Associates conducted a two week salvage excavation near Ashcroft. A radiocarbon date of 5870<u>+</u>500 years ago was obtained from the bottom of stratified cultural deposits.

Major tool types recovered include notched pebbles, corner-notched projectile points (similar to the hafted "scrapers" found at the Lehman site by Sanger in the 1960's), and crude bifaces. Faunal remains consist of fresh water mussel shell, and fish and land mammal bones.

The site, EeRh 61, will be impacted by mill development. The Heritage Conservation Branch and Pinette and Therrien Mills Ltd. of Williams Lake jointly sponsored the investigation, which was directed by Stephen Lawhead.

NHERIOR:

COAST

VICTORIA AREA SITES TO BE STUDIED

Grant Keddie (Archaeology Division, B.C.P.M.) has begun a long-term research project to compile information on the prehistory of the Songhees territory on Vancouver Island.

There are over 200 archaeological sites presently recorded in the Victoria-Esquimalt area, and Keddie knows of at least 75 additional localities. He is particularly interested in information on inland sites, which are not well represented in the existing inventory.

In addition to proper site recording and mapping, artifact collections will be photographed and documented in accordance with National Inventory procedures. The resulting data will be written up as a series of short papers -- which might be first published in THE MIDDEN.

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TWIN TRACKING PLANS ENDANGER SKEENA RIVER SITES

The second season of a major archaeological research project in the Prince Rupert-Skeena River area identified several sites which may be in need of salvage excavation.

Preliminary testing was conducted during the fall of 1983 at five sites near Terrace and one on Inverness Passage. All six are located along the CN Rail right-of-way and may be impacted by twin track construction.

David Archer, who directed the project, is currently preparing a proposal for further mitigation. The investigations over the past two years have been carried out by the Museum of Northern B.C. (Prince Rupert) with funds provided by the National Museum of Man.

*

TRUST PROMOTES HISTORICAL ARCHAEOLOGY

A \$56,000 grant was recently awarded by the B.C. Heritage Trust for a research project on the salmon canning industry in B. C. The recipients are Dr. Dianne Newell (history, UBC) and Dr. Arthur Roberts (geography, SFU).

The study will combine historical, archaeological, and geographic perspectives. According to Newell there are about 200 cannery sites on the B.C. coast. These will all be documented with aerial photographs. Thirty of the sites will then be investigated on the ground. No excavation is planned.



BRITISH, COLUMBIA



SITE PROTECTION

WILL REQUIRE MORE THAN LIP SERVICE

The B.C. Ministry of Environment in Feb. released a report on land use alternatives for the South Moresby area of the Queen Charlotte Islands. The 12 member Planning Team, which included one archaeologist, spent five years preparing the detailed study. They examined a range of environmental, cultural, and economic considerations in an attempt to evaluate potential impact from proposed development. Heritage resources were one of the considerations.

The impetus for the study was the granting of tree farm licences for a considerable portion of the South Moresby area, most of which is presently "untouched" wilderness. To withdraw from licence agreements would require compensation payments. As Environment Minister Tony Brunnet said, "This is an extremely complex issue."

The report recommends that the South Moresby area be divided into two zones, one slated for "development" and the other left in its "natural" state. The Planning Team did not, however, reach a consensus regarding the proportion of the area to be included in each zone. Four alternatives are presented, as well as several appended minority positions.

The report does conclude that archaeological sites should and could be protected under any of the alternatives. However, it goes on to say, "It remains to be determined how this can be done...the present inventory is inadequate and no responsibilities have been assigned for funding of further reconnaissance. The present interagency referral system is also inadequate, even for the protection of known sites...policing is virtually nonexistent...Thus it is difficult to see how site protection can be effectively carried out without some changes in present policies."

Whether or not heritage resources will be provided for in the final decision regarding land use on South Moresby, remains to be seen. Somehow, the record doesn't incline one to optimism.

**Copies of the 200 page report are available from the Queen's Printer in Victoria for \$10.

Kathryn Bernick



HERITAGE SOCIETY CONFERENCE

The 1984 conference of the Heritage Society of British Columbia will be held in Nanaimo, May 25-27, 1984. Information from: Heritage Conference 84, c/o Nanaimo City Hall, Administrative Services Dept., 455 Wallace St., Nanaimo, B.C. V9R 5J6.

CONFERENCE ON WOMEN'S HISTORY IN B.C.

The first Women's History in British Columbia Conference will be held April 27-28, 1984, at Camosun College in Victoria. Topics include three on native women: the legal/historical perspective; post/contact life histories; and a round-table discussion on the problems and issues of researching native women's history. For further information contact: Barbara Latham, Camosun College, 3100 Foul Bay Road, Victoria, B.C. V&P 4X8. Tel: 592-1281, Local 337.



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NEW PUBLICATIONS

Alberni Prehistory: Archaeological and Ethnographic Investigations on Western Vancouver Island by Alan D. McMillan and Denis E. St. Claire. Theytus Books, Penticton. 1982. 219 pp., ill. \$15.

Don't let the publication date fool you: the long-awaited report on the Alberni area has just been released. Order from: Theytus Books, 110-304 Martin St., Penticton. B.C. V2A 5K4.

Sliammon Life, Sliammon Lands by Dorothy Kennedy and Randy Bouchard. Talonbooks, Vancouver. 1983. 176 pp., ill. \$9.95.

A cultural and historical description based on ten years of ethnographic research among the Klahoose, Homalco, and Sliammon, Coast Salish peoples of the northern Strait of Georgia.

David Boyle: From Artisan to Archaeologist by Gerald Killan. Univ. of Toronto Press. 1983. 276 pp., ill. \$35.00 cloth, \$14.95 paper. A biography of David Boyle, the first Ontario archaeologist; as well as a scholarly document of the early history of the Ontario archaeological tradition.

"Sibbald Creek: 11,000 Years of Human Use of the Alberta Foothills" by Eugene M. Gryba. <u>Archaeological Survey of Alberta Occasional Paper</u> No. 22 (1983). 219 pp. Includes an appendix by Donald A. Barnett on the faunal remains from the Sibbald Creek site.

Avail. without charge from: Archaeological Survey of Alberta, Old St. Stephen's College, 8820-112 St., Edmonton, Alberta, T6G 2P8.

AND A PUBLICATION THAT'S NOT SO NEW

The <u>British Columbia Historical News</u> is published four times a year by the British Columbia Historical Federation. The magazine contains articles on local history and personalities, a Research column to assist researchers with problems in locating material, news and notes of historical societies, and a book review column.

Subscriptions: Four issues for \$8.00 from B.C. Historical Federation, Box 35326, Station E, Vancouver, B.C. V6M 4G5.

The Abbotsford Chapter of the Archaeological Society of British Columbia has been in existance for approximately ten years. There has been a core membership of about 15, with current membership about 30. We are all amateurs and concentrate on family membership and participation.

We hold meetings on the third Tuesday of each month, from September to June. Presently we meet at the new campus of Fraser Valley College. Our meetings consist of a short business section with most of the time being allocated to guest speakers. The topics cover the entire realm of archaeology.

Also, we try to arrange regular outings to locate archaeological sites. Some members are involved in photographing and cataloguing private collections in the Fraser Valley.

Over the years our interaction with the Vancouver Society has become much more extensive and we participate actively in their activities. For further information contact W.D. Koberstein, 2850 Woodland St., Abbotsford, B.C. V2V 4E4. Phone: 859-1921.

W.D. Koberstein

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SURVEY OF TWIN TRACK LINE REPORTS CONFLICTS

Several dozen archaeological sites along the North Thompson and Fraser Rivers may be in danger from railroad construction.

The right-of-way slated for double tracking by CN Rail has recently been surveyed by ARCAS Associates (headed by Arnoud Stryd and Stephen Lawhead). About 170 sites were found, 54 of them identified as being in "high impact zones." ARCAS, which conducted the work between Valemount and Vancouver under contract for CN, reported that 22 of the sites may well be in unavoidable conflict with construction plans.

The Provincial Archaeologist's Office is presently reviewing the survey report and will be negotiating with CN regarding their previous committment to preserve or salvage any archaeological sites that might be endangered by rail construction.

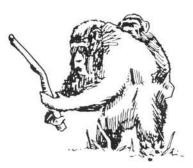
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KIRUSA

LOOK FOR . . .

"Archaeological Research in Pacific Rim National Park" by Kathryn Bernick. In Spring 1984 issue of <u>Heritage West</u> (Vol.8, No.1). The illustrated article describes the B.C. Provincial Museum's site survey along the West Coast Trail.

REVIEW



On Becoming Human by Nancy Makepeace Tanner. Cambridge University Press, New York. 1981. 373 pp., ill.

At last -- a sane, scholarly work about human evolution which recognizes <u>both</u> halves of the genetic equation. While Professor Tanner makes clear the necessity of including the roles of females and infants in any full discussion of our evolution, this is no shrill feminist polemic, or worse, some far-fetched theory based on wild interpretation of sketchy evidence. This work rests solidly on generally accepted understandings of the hominid fossil record. At the same time, Professor Tanner has thoughtfully integrated what is currently known about the African paleo-environment with a considerable knowledge of the social behaviour of the chimpanzee, our closest relative, and has come up with an evolutionary model in which female sexual selection and food gathering/sharing with her offspring play a vital role.

Her bibliography, 56 pages long, is a compendium of all that is worth knowing, along with some that isn't, in the fields of primatology and hominid evolution. There are two indices -- name plus subject. The table of contents is a model of where to find what. The writing is lucid, but the rhythm is ruined by the incessant interjection of the currently fashionable parenthesized social science style footnote, which, as a reader I detest.

The real weakness of this book is the illustrations. In the first place they are just a little on the "cute" side. In the second place, many of them did not take well to reduction. And lastly, many of them are ill placed, apparently scattered at random throughout the text. The overall effect is to trivialize a book which deserves to be taken seriously.

Despite these flaws this book would make an excellent supplementary textbook, or at least required reading for even the first year student of physical anthropology. It is never too soon to understand that "a viable (evolutionary) model cannot be constructed if half the species remains invisible..."

Phyllis Mason



from Victoria...

Permits issued between October 1983 and March 1984:

Stan Copp: Richmond Wayne Choquette: DgQd 4, Creston Jane Warner: Vanderhoof Inventory Jane Warner: Flathead Inventory Lynda McIntaggart: Petroglyph rubbing, Gabriola Morley Eldridge: St. Mungo Sylvia Albright: McLean Lake Jean Bussey: Highways Terrence Spurgeon: DhRg 22, Pitt Meadows Joanne Curtin and Gerald Conaty: Monitor Crescent Beach Mark Skinner: Burial Remains Arn Stryd: Salvage EeRh 61, Ashcroft Shawn Haley: Fairmont Hot Springs R.J. Muckle: DiRi 15, Hope Kitty Bernick: Queen Charlotte Islands Keith Gehr: EgRg 4 salvage

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H.C.B. FORCED TO CONTRACT EVERYTHING

The latest round of government hiring freezes, budget cut backs, and general restraint legislation means that the Heritage Conservation Branch will have to contract out <u>all</u> field work.

While the proportion of contracts has been increasing over the past several years, some on-going monitoring and impact assessemnt jobs have until now been done by regular or auxiliary personnel.

Since the termination of all auxiliary positions, office staff have been swamped with extra work, and are barely keeping up with administrative tasks. Brian Apland, acting head of Impact and Assessment, told THE MIDDEN, that this does not, however, mean that the Branch will neglect its responsibilities. Everything, Apland said, even routine checking of highways projects, will have to be done on contract.

A new revised list of "Heritage Resources Impact Assessment Consultants" is being prepared. Individuals and companies interested, able, and qualified to provide consulting services in B.C. have been requested to so inform the H.C.B. by April 30, 1984.



RESOURCE MANAGERS STUMPED BY TREES

CMT's (or AFU's if you prefer) are not a new discovery by B.C. archaeologists, nor, as some resource managers suspect, an invention designed to complicate their job. And yet they are new to most archaeologists in the province, and they are creating complications in Victoria.

A Culturally Modified Tree (CMT) is a heritage resource when it displays evidence of Aboriginal Forest Utilization (AFU). The tree might bear a visible scar where a slab of bark has been stripped off, or where the wood has been chopped. Logging activities are represented by stumps and the remaining portions of felled logs. On the coast most of these "cultural trees" are western red cedars.

Over the past few years archaeologists surveying in outlying forested areas of the province have been finding and recording numerous examples of aboriginal forest utilization. The H.C.B. has been hard pressed to deal with the volume of information, and researchers are requesting that recording guidelines be established so that data, within and between regions, will be comparable.

In December 1983 the Heritage Conservation Branch held a meeting in Vancouver to discuss the "CMT Problem." The nine invited participants included most of the archaeologists who had been recording modified trees. Following that discussion, the H.C.B. decided to eliminate all modified tree sites from their site inventory. Existing data, as well as newly recorded information, will be kept in a paper file, but will not be entered into the computer data base.

At the same time the Branch contracted a \$14,000 research oriented study of some 100 AFU tree features on the Queen Charlotte Islands, in an area where MacMillan Bloedel has already begun logging operations. Preliminary results of the field work -- which Kitty Bernick and Al Mackie have just completed -- indicate that the features represent stages of dugout canoe manufacture during the early historic period.

Another CMT study is currently up for bids. MacMillan Bloedel, which is making plans for logging Meares Island, near Tofino, will be contracting a probabilistic sampling study of the distribution of aboriginal forest utilization features on the island. There are presently 73 recorded CMT sites on Meares, representing over 1,000 separate modifications. The majority of the sample are cedars with scars from the removal of strips or slabs of bark.