THE MIDDEN

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Editor
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LATE NEWS!

Last-minute funding has been found for a salvage excavation at Crescent Beach this summer.

Co-ordinator Leonard Ham (U.B.C.) only received approval in the last few days of May. Funding comes from the cancellation of a National Museum dig, up the coast. The project will include both a rescue dig ahead of site demolition, and a thorough sampling of the rest of this tiny seaside-holiday village.

The Archaeological Society of B.C. has agreed to provide a substantial amount of equipment for use on this excavation, plus some volunteer workers. Non-professionals will be needed for fieldwork and possible follow-up laboratory work in the fall.

In conjunction with this, Mr. Ham has agreed to provide a brief non-credit course in archaeological laboratory work for ASBC members this fall.

In the meantime, the Society is already committed to screening 24 truckloads of excavated Crescent Beach midden, for Rick Percy of SFU (see his report, inside). This less-skilled, but often rewarding, work will therefore continue simultaneously throught the summer until the job is done. Volunteers for both projects are needed, especially for weekdays. If interested, please phone Jim Garrison, 263-8782.

ONLY 7 other DIGS THIS YEAR

Only seven archaeological excavations have so far been approved for British Columbia, for this summer. This number compares with five at the same time last year, and thirteen the year before.

There will be none within commuting distance of Vancouver, so ASBC members interested in digging this summer will need to break out their tents, and probably dedicate some of their vacation.

Some digs will not need non-professional help, so volunteers are urged to write first to the project supervisors, at the addresses listed below:

★ Little Qualicum River Site, Vancouver Island - Kitty Bernick, Dept. of Anthropology, University of Victoria, Victoria, B.C.

★ Hesquiat Archaeological Project, West Coast Vancouver Island - Jim Haggarty, Archaeology Division, Provincial Museum, Victoria, B.C.

★ Hope Highway Salvage Project, Hope, B.C. - David Archer, Dept. of Anthropology, University of Victoria, Victoria, B.C.

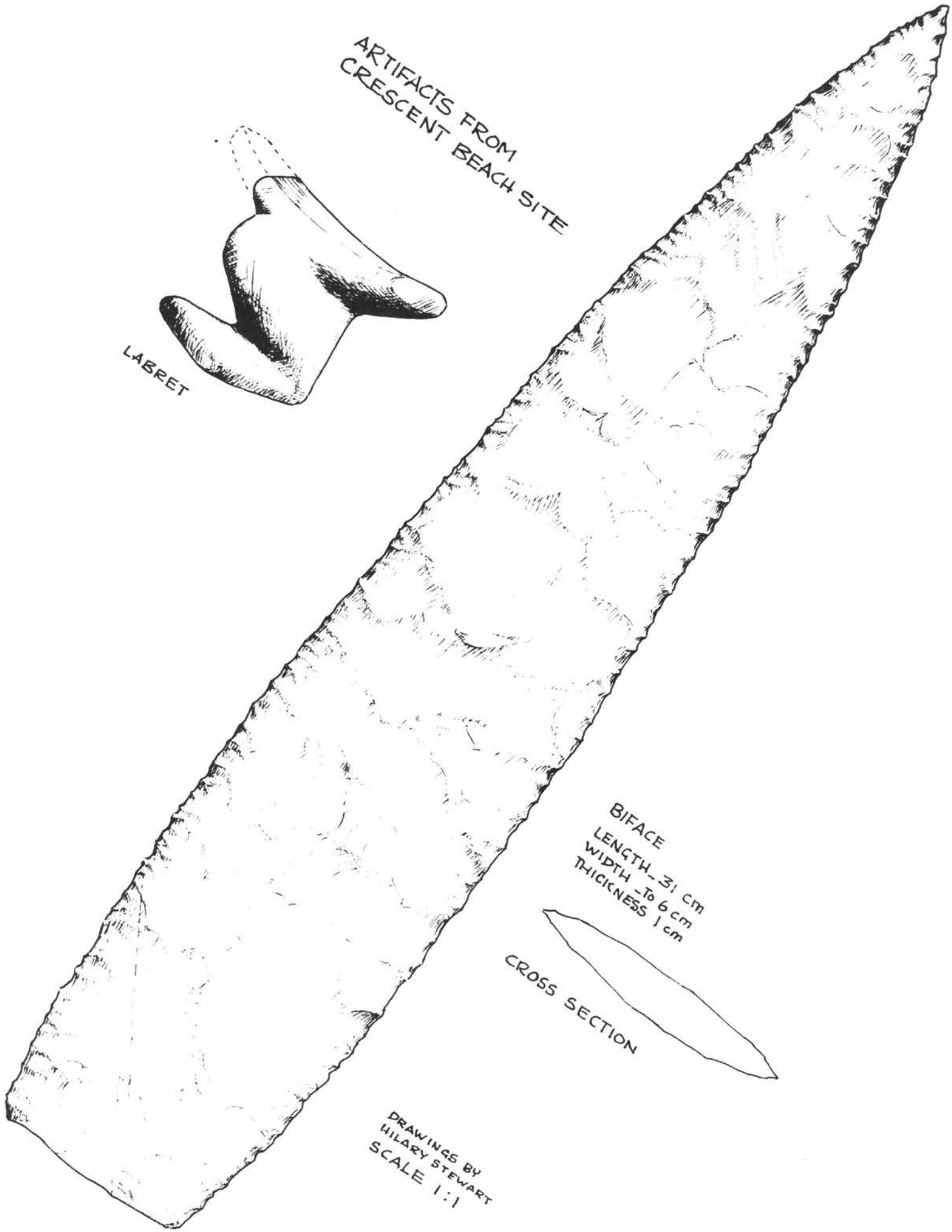
★ Spences Bridge Highway Project, Spences Bridge - Art Charlton, Archaeological Sites Advisory Board.

★ Hat Creek Project, Cache Creek area - David Pokotylo, Dept. of Anthropology, U.B.C.

★ Pend Oreille Salvage Project, Trail - Art Charlton, A.S.A.B.

★ Peace River Project, Knut Fladmark, Archaeology Division, Simon Fraser University.

★ ALSO: Western Washington State College will run an excavation at Semiahmoo Spit, some 20 minutes south of Crescent Beach. Important site, renowned for its clear quartz microblades, is 2o feet deep. Volunteers needed. Contact Gar Grabert, W.W.S.C., Bellingham.


ARTIFACTS FROM
CRESCENT BEACH SITE
LABRET
BIFACE
LENGTH - 31 cm
WIDTH - To 6 cm
THICKNESS 1 cm
CROSS SECTION
DRAWINGS BY
HILARY STEWART
SCALE 1:1

Crescent Beach: a report

By Richard Percy, Curator, S.F.U. Museum

INTRODUCTION

The 1972 archaeological salvage operation at Crescent Beach was the sequel to the 1970 destruction of major portions of the remaining midden along Bayview Street. The earlier destruction was the result of the first phase of a large sewer trunkline project. Unfortunately, no effort was made at the time to preserve any portion of the archaeological record although a few rescued artifacts did reach the Surrey museum.

The final phase of the sewer project called for the Bayview Street houses to be connected to the sewer trunkline. Much evidence of extensive undisturbed midden was quickly uncovered; a halt was called to the work and a salvage project instituted by the Department of Archaeology at Simon Fraser University. I was appointed project director. Assistance was solicited, and received in various forms, from the Municipality of Surrey, the Archaeological Sites Advisory Board, the Provincial Museum, the National Museum of Man in Ottawa, and the Archaeological Society of British Columbia. All of these agencies contributed time, money or equipment to the project.

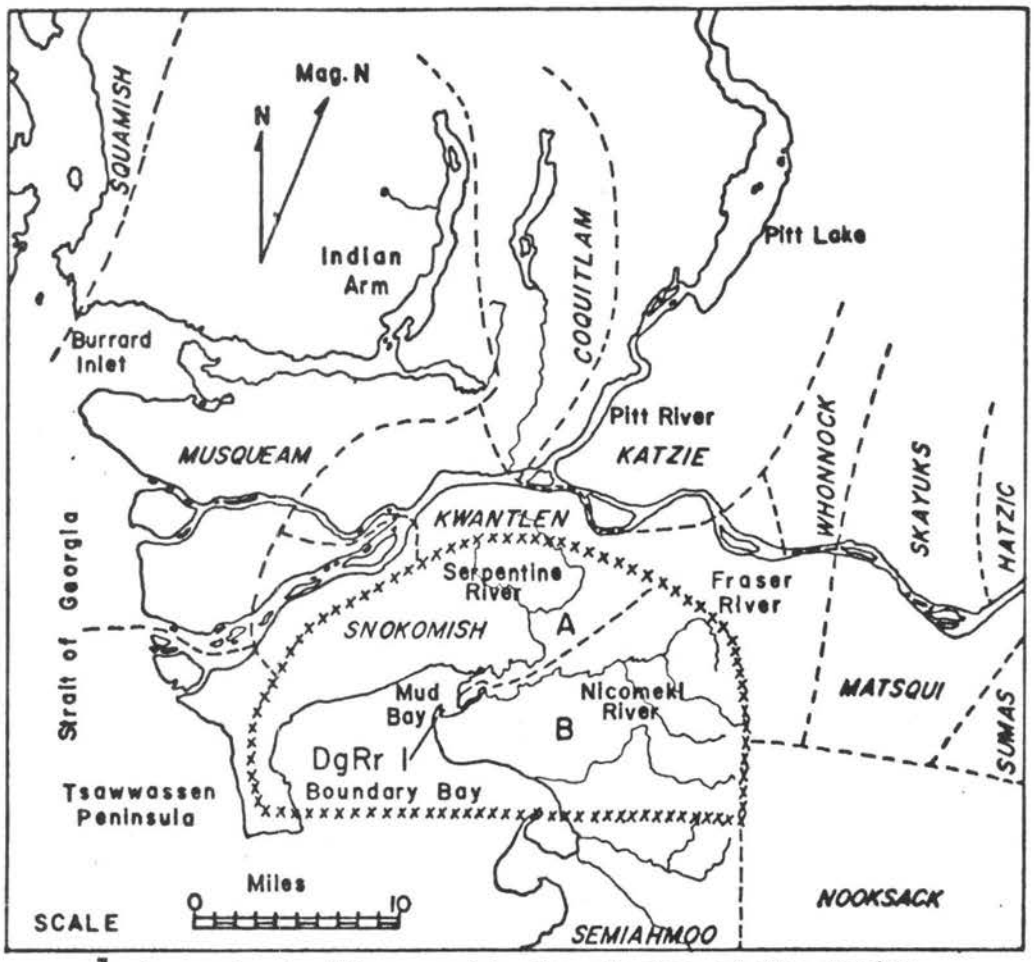
LOCATION AND SIZE OF SITE

Crescent Beach is a small community within the Municipality of Surrey, British Columbia. It is in the northeast corner of Boundary Bay and is 3.75 miles due north of the Canada-United States border that crosses the bay. It is close to Mud Bay into which flow both the Serpentine and Nicomekl rivers. In accordance with the Borden site designation system the site is known as DgRr.1.

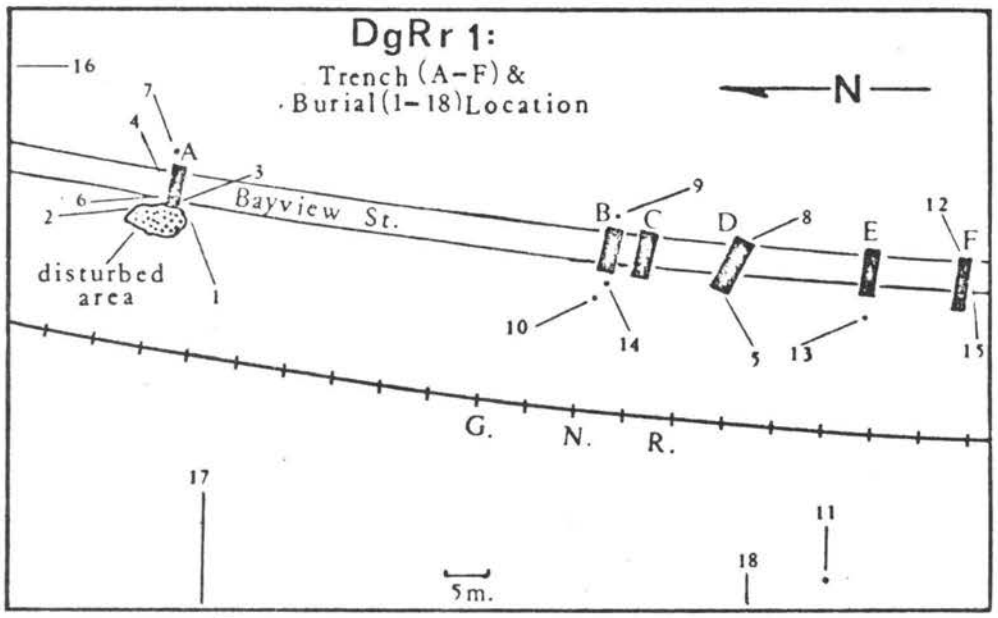
Ethnographically, DgRr 1 lies within the former bounds of the Semiahmoo dialect group who were the most northerly of the Lkungeneng language. This language, commonly known as Straits Salish, is one of the closely-related Coast Salish languages. Its area of usage lay to the south of those territories occupied by speakers of another Coast Salish language, Halkomelm. Duff (Upper Stalo Indians, 1952: Map 1, 23) notes that Semiahmoo territories extended from the south in the vicinity of Semiahmoo Bay (and further) where they bordered the Lummi, northwards to a point running between the Nicomekl and Serpentine rivers. From that spot around Boundary Bay to the centre of the tip of Point Roberts he delineates as Kwantlen territories (area A of Map 1). Possibly Kwantlen occupation of a portion of the Boundary Bay littoral was a late occurrence similar to their upriver absorption of the Sx̱áyəks mentioned by Duff. This is a distinct possibility as Suttles (Economic Life of the Coast Salish, 1951: 29; Katzic Ethnographic Notes, 1955: 12) relates how the Semiahmoo are thought to have moved onto the southern portion of the Mud Bay territories of the Snokomish (area B of Map 1) after that group had been wiped out by smallpox prior to the arrival of Europeans. According to Suttles, the extinct group spoke Halkomelm. To the east were the Nooksack who spoke a separate language. The small Tsawwassen group who occupied the western half of the Tsawwassen peninsula were Halkomelm speakers.

AREA OF EXCAVATION

Initial plans called for a series of long trenches reaching from the Bayview Street property lines out to the vicinity of the sewer trunk. However, Surrey's wishes for emergency vehicle access restricted excavation to those portions of the proposed trench that lay directly under the road surface. To speed our work the sewer crew cut and removed the "tarmac" and bed gravel on the proposed trench locations. The trenches were assigned letters of the alphabet from A to I progressing southwards. Only A through F were excavated during the course of the salvage project, while G through I, dug by the sewer crew, proved devoid of midden deposits (see map 2). Each trench was divided into a number of pits for control purposes.



1. Approximate Ethnographic Boundaries of the Region (after Duff, 1952; Suttles, 1951)



2. Trench Location at the Site

RECOVERY TECHNIQUES

For the most part, excavation was conducted in 10 cm levels. Exceptions occurred in disturbed portions and in trench F where the pressure of time dictated the use of 20 cm arbitrary levels. Although shovels were utilised throughout the project, trowels, brushes and finer tools were utilised for the investigation of features and burials. All materials were passed over 1/4 inch mesh screens. Some of the midden deposits were very gummy and had to be laboriously screened with the aid of water which helped to reduce the matrix for sorting.

Cultural material was encountered down to approximately 210 cm where excessive groundwater seepage softened many of the lower pit walls which continually sloughed inwards, threatening large cave-ins.

THE EXCAVATIONS

As work progressed at the site a number of cultural features were uncovered and recorded, i.e., 7 clay features, 12 hearths, 18 burials and 2 rock alignments. Through lack of space I shall only describe the unique clay features located in the lowest (Mayne phase) component of the excavations and two noteworthy burials.

Feature 1. This feature did not fall entirely within the arbitrary bounds of trench B so arrangements were made with the sewer project crew whereby they removed a portion of the north wall in order to form an alcove which then permitted its full exposure. The feature consisted of dark yellow clay hard packed into the form of a shall basin-like depression. The shape was roughly ovoid and its dimensions from rim to rim were 35 cm. north to south and 47 cm east to west, while the extreme basal dimensions were 48 cm north to south and 70 cm east to west. Internally, its shape was hemispherical and measured 7 to 8 cm in depth. At the bottom of the basin the clay measured only 5 cm thick. The feature had beenconstructed on fairly flat original ground and not moulded into an earthen depression or on a platform of rocks or any other discernibly different material. The material removed from the basin was similar in content to the surrounding midden, being of a black greasy-like consistency with large amounts of finely crushed clam (Protothaca staminea) and mussel (Mytilus edulis) shell. No ash-like or charred substances were extracted from inside the basin nor were any other items, artifactual or otherwise, noted within it. The clay bore no evidence of having been fired or charred. However, considerable quantities of thermally-fractured rocks were noted strewn around the clay structure at the same level and concentrated within approximately 1.25 metres of it. The nearest observable hearth that could have served as the heating source for these stones was located approximately 1.3 metres directly northeast of the basin. This hearth was beyond the confines of trench B and was only revealed during the construction of the alcove. A phenomenon quite obviously related to the function of the clay feature was a heaped-up concentration of highly pulverized white shell. The heap was roughly 50 cm wide, 35 cm high, and tapered northwards away from the perimeter of the feature for 1.2 to 1.4 metres. When dry the material was powder-like; when thoroughly dampened by rainwater it took on the appearance of a white mushy ooze and felt quite climy when touched. Its consistency was noticeably different from all other shell remains encountered at the site.

Recently, Turner and Taylor (A Review of the Northwest Coast Tobacco Mystery, 1972) have presented an overview of available evidence pointing to the cultivation and chewing of a native tobacco (Nicotiana quadrivalvis) on the Northwest Coast. The normal northerly extent of the plant is the area of the Columbia River. However, they not its documented presence as far north as the Queen Charlotte Islands (1972: 250). Within ethnographic times this tobacco was chewed with lime prepared by burning abalone or clam shells to which water was added, or by roasting the shells after they had first been steamed and crushed. The substance obtained by this treatment was fine and floury (1972: 251).

Noting the unusual slaked lime-like quality of the powdered shell, the unfired nature of features which were probably used for steaming the shells and the fact that Nicotiana quadrivalvis once grew in the regions to the north of Crescent Beach, there is a possibility that tobacco chewing was practised at the site as early as the second millennium B.C.

Feature 2. Another almost identical clay basin was discovered in pit 2 of the same trench and

at precisely the same level as the first feature described. In size, internal contour and type of construction this feature paralleled Feature #1 except in shape which remembled an asymmetric pentagon. It also did not contain anything except black greasy-like midden soil with some fragmented shell. As with Feature #1, the outer limits of this feature also extended into the north wall of the trench so that an extension of the alcove was created in an attempt to obtain a fuller understanding of the nature of the structure. Thermally-fractured rocks were observed randomly scattered around its perimeter. Two small post-mould holes were observed on the rim of the feature directly opposite each other. No others were detected and while the inward slope of the two holes could be interpreted as the remains of a structure this would only be tenuous speculation. No heaped-up powdered shell was encountered near the feature.

Feature 3. A smaller ovoid clay feature was recorded in pit 1 of trench D. Its measurements were 40 cm from rim to rim, north to south and 60 cm from east to west. The feature, first noted at 148 cm below surface, was bowl-like and apparently had been made by daubing clay into an earthen depression rather than constructed on flat ground as with Features 1 and 2. It was not fired and contained no ash although numerous thermally-fractured focks were strewn nearby.

Feature 6. The remains of a previously disturbed clay feature were uncovered in trench E, pit 1 at the southeast corner. Because of its fragmentary and crushed condition construction details were impossible to determine. Probably it had been bowl-like before being crushed flat. It had not been fired and ash was not in association with the feature though traces were scattered nearby along with flecks of charcoal. Fire-cracked rocks and burned mussel shell were noted in the same vicinity. The feature was situated in the 170-180 cm level and was the deepest observed feature of its kind at the site. These features were all located between 130 and 180 cm below surface. A carbon sample taken 10 cm below these features yielded the date of 2320±80 B.C., (Gak - 4925). Of the other clay features, one was a similar bowl-like structure found in the next upper (Locarno) component while the rest were presumably clay-daubed living floors located in the uppermost intact (Marpole) component.

Somewhat similar clay features have previously been reported at Semiahmoo Spit, Pitt Meadows, Helen Point, Montague Harbour and in the San Juan Islands.

Two of the burials were unique. Burial 3, located in the middle (Locarno) component of trench A was tightly flexed, on its back and oriented north-south with the head southward. The remains, in various stages of decay, were in a layer of black greasy-like soil in which no discernible grave pit could be located. A rather unique feature of this apparently primary burial was that although the madible was intact and in the correct anatomical position the cranium was missing. Enlarged excavation to the south failed to locate the missing skull. Why and how this portion of the remains had vanished is a mystery that invokes a host of unanswered questions. Examination verified the reains as being male and between 26 and 30 years old. Only one artifact, a bone awl, was associated with the burial.

Burial 8, located in the Locarno component of trench D, was found to be that of an old adult male who had suffered a chronic case of Ankylosing Spondylitis. The individual had also survived trephination of the R.H. frontal bone. Originally, the grave had been masked by a rough circle of 11 fist-sized rocks. A bone awl, 1 bone chisel, 2 cores, 1 abrader and 3 utilized flakes made up the individual's grave goods.

Study of the dentition of the burials has revealed that at least five individuals appear to have had the labial surfaces of their anterior mandibular teeth subjected to some form of intentional grinding. The possibility of this wear being induced by the flanges of labrets is tenuous and is to be investigated further.

THE ARTIFACT ASSEMBLAGE

Approximately 1500 artifacts were found during the project, some 200 of which were surface finds. A rough classification of the artifacts is listed below.

I. Chipped Stone: cores, cobble core tools, cobble-spall tools, projectile points, gravers, knives, preforms, scrapers, wedges, perforators, large bifaces, microblades, utilised flakes and notched sinkers.

II. Pecked and Ground Stone: hammerstones, anvil stones, cobblestone bowls, hand mauls, perforated pebbles.

III. Ground stone: abraders, adze blades, small pebble wedges, large projectile heads, tiangular ground-slate points, thin ground-slate knives, flat rings, beads, labrets, pendants, and Gulf Islands Complex objects.

IV. Bone Antler, Teeth: chisels, gouges, wedges, hafts, flakers,creasers, needles, blanket pins, hooks, barbs, drills, tubes, bipoints, awls, barbed harpoons, composite harpoons, gorges, leister points, dagger-like objects, beads, pendants, carvings.

V. Shell: adze blades, bowls, beads, flat rings, labrets, pendants.

VI. Red Ochre.

CONCLUSIONS

Analysis of the site's artifact assemblage points to a continuous occupation period of not less than 5,000 years. Components are seen to mirror diagnostic traits of some of the conceptualized units of prehistoric culture in and around the Lower Fraser-Straits of Georgia area.

The cultural units definable at Crescent Beach from the earliest to the latest are: Crescent Beach I, II and III. The first of these, Crescent Beach I, bears demonstrable affinities to both the Eayem and Mayne phases and is characterised by predominatly chipped lithics. In Crescent Beach II, which relates closely to the Locarno Beach phase, there is a percentile rise in ground lithics. Crescent Beach III, which corresponds to the Marpole phase, is typified by the almost complete demise of tools based on cobbles.

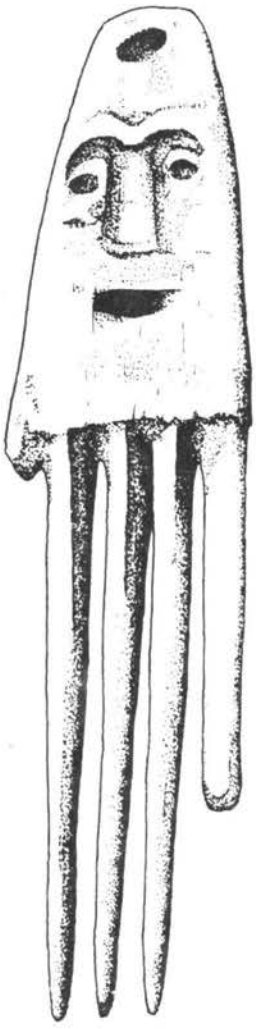
Unfortunately, industrial and urban development has seriously disturbed the deposits in the vicinity of the restricted excavations. This disturbance has apparently truncated the uppermost Marpole remains and entirely obliterated those upper portions that could be expected to contain assemblages similar to Borden's Whelan II, Pre-Stselax and Stselax phases, or Carlson's San Juan phase. Undoubtedly, such an upper portion of the sequence exists elsewhere at the site as some of their diagnostic materials are to be seen in the many local private collections. The railway embankment paralleling Bayview Street probably covers such upper deposits and if, at some future date, it is removed, the opportunity to excavate there should not be missed.

EPILOGUE

Early in 1975, four more sewer connections were placed across Bayview Street. The material from the trenches was trucked away and considered lost.

In May, it was found piled on the parking lot of a nearby marina. When contacted, the owners agreed to allow myself and the Archaeological Society of B.C. to mount a project for the recovery of cultural material. The activity, though not "true archaeology", is providing a valuable recognition exercise without the worry of context disturbance. It is also adding to the diagnostic assemblage as about 250 artifacts were recovered in the first four weekends of work. Most notable are a large biface and a labret recovered by "Lucky" Jim Garrison, a veteran society member. The biface (see sketch) and the labret were found within 10 minutes of each other. The biface, though broken in antiquity, still measures 12 1/4 inches. Its delicate nature precludes any purpose other than ceremonial. The maker must have been a superb master craftsman. As fas as is known, it is the largest chipped biface ever found on the coast north of the Columbia River. The object is at the Museum of Archaeology and Ethnology at Simon Fraser University and is on view with the rest of the Crescent Beach assemblage. This screening project will continue as long as necessary.

Government rejects ASBC bid for grants



Ozette

The Provincial Department of Labor decided not to spend $50,000 on archaeology this year!

The opportunity was provided by the Archaeological Society which applied for two $25,000 grants under the Department's Summer Seasonal Employment Societies Program. Though the Society executive had pinned some hope on receiving at least partial approval of one grant, both applications were turned down flat.

The eleven foolscap pages of application described two major projects:

1. Rescue excavations at several Lower Mainland sites;

2. Laboratory Analysis and library research on material from several Lower Mainland sites which have been excavated in the past, but from which reports have never been published.

The intention was to hire professional project managers and a number of student workers, including native Indians, with additional volunteer work done by ASBC members. However, the government program was aimed mainly at aiding disabled or retarded youth, and the thumbs down was presumably on this basis.

OZETTE FIELD TRIP POSSIBLE

Dr. Richard Daugherty's lecture on Ozette - the special May meeting held at Simon Fraser University - drew a good crowd of ASBC members.

The response was so good, in fact, that thought is being given to organizing a field trip this fall to the Olympic Peninsula site, "Pompeii of North America". If interested, watch for the announcement early in September.

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The New York Times

JANUARY 29, 1976

Indian Museum, Under State Orders, Is Taking Inventory

By FRED FERRETTI

Gina Laczko, until two week ago a theatrical costumer taking courses in anthropology at the New School, and Gary Galante, an undergraduate anthropology student at Hofstra University, began counting granite arrowheads, rawhide Blackfoot war shirts, Cheyenne moccasins, Ecuadorian pottery shards, Kiowa buckskin drums and feathered Commanche war shields yesterday as the Museum of the American Indian started an inventory of its four-million-piece collection.

The inventory, ordered by State Attorney General Louis J. Lefkowitz as part of a general overhaul of the museum's board, administration and holdings, is expected to take a minimum of 18 months. When it is completed, the museum expects to know which and how many of its valued American Indian artifacts are missing.

The museum, its former director, Dr. Frederick J. Dockstader, and its former 11-member board of trustees were the subject of an 18-month investigation into the institution's deaccession, investment and financial policies. As a result of the inquiry, Dr. Dockstader, who was on the board, was dismissed, five other board members resigned and Mr. Lefkowitz demanded the inventory, which is expected to cost the museum $100,000.

The new chairman of the board of trustees, John S. Williams Jr., said at the museum's research center—a three-story warehouse off Bruckner Boulevard in the Pelham Bay area of the Bronx—that the massive inventory was "something no other museum with a collection our size has ever attempted."

The collection, which includes hundreds of thousands of stone arrowheads and such items as priceless pre-Colombian golden statuary, is regarded by art historians and anthropologists as the most comprehensive in its field. No attempt has ever been made to assess its value.

The museum and its collection are the fruits of the obsession of one man — George G. Heye, an engineer who made enormous amounts of money in Standard Oil investments in the first decade of this century and who discovered Indian artifacts while building a bridge in Arizona. The first purchase of a buckskin shirt began a collection encompassing Indian life from the Artic Circle to Terra del Fuego that often included purchases of entire Indian villages. Mr. Heye numbered all of the items personally and brought them to New York.

The museum, at Audubon Terrace, 155th Street and Broadway, and the research center on land that once belonged to the naturalist John James Audubon, were built by Mr. Heye, who remained the autocratic ruler of his collection until his death in 1958. After his death the museum was run as a fiduciary trust by its board of trustees.

It was this board and Dr. Dockstader who were charged by another board member, Edmund Carpenter, with mismanaging the collection, inaccurate record-keeping, questionable policies of deaccession—whereby pieces are removed from the permanent collection for sale or trade—and conflict of interest.

Trustees Accused

The investigation of the collection, undertaken by Assistant Attorney General Joel Cooper, resulted in a complaint from the Attorney General's office in State Supreme Court charging the trustees with getting rid of parts of the collection in a way that was "surreptitious and wasteful," an injunction prohibiting Dr. Dockstader and the trustees from disposing of other pieces and finally a petition seeking the removal of the trustees and the director.

Dr. Dockstader was dismissed in an exchange of letters, and the trustees resigned. They were replaced by Alexander F. Draper, hired as administrator and by four other trustees. Under the restraints of the Attorney General's office, a charitable trust will be formed and trustees will serve staggered, measured terms.

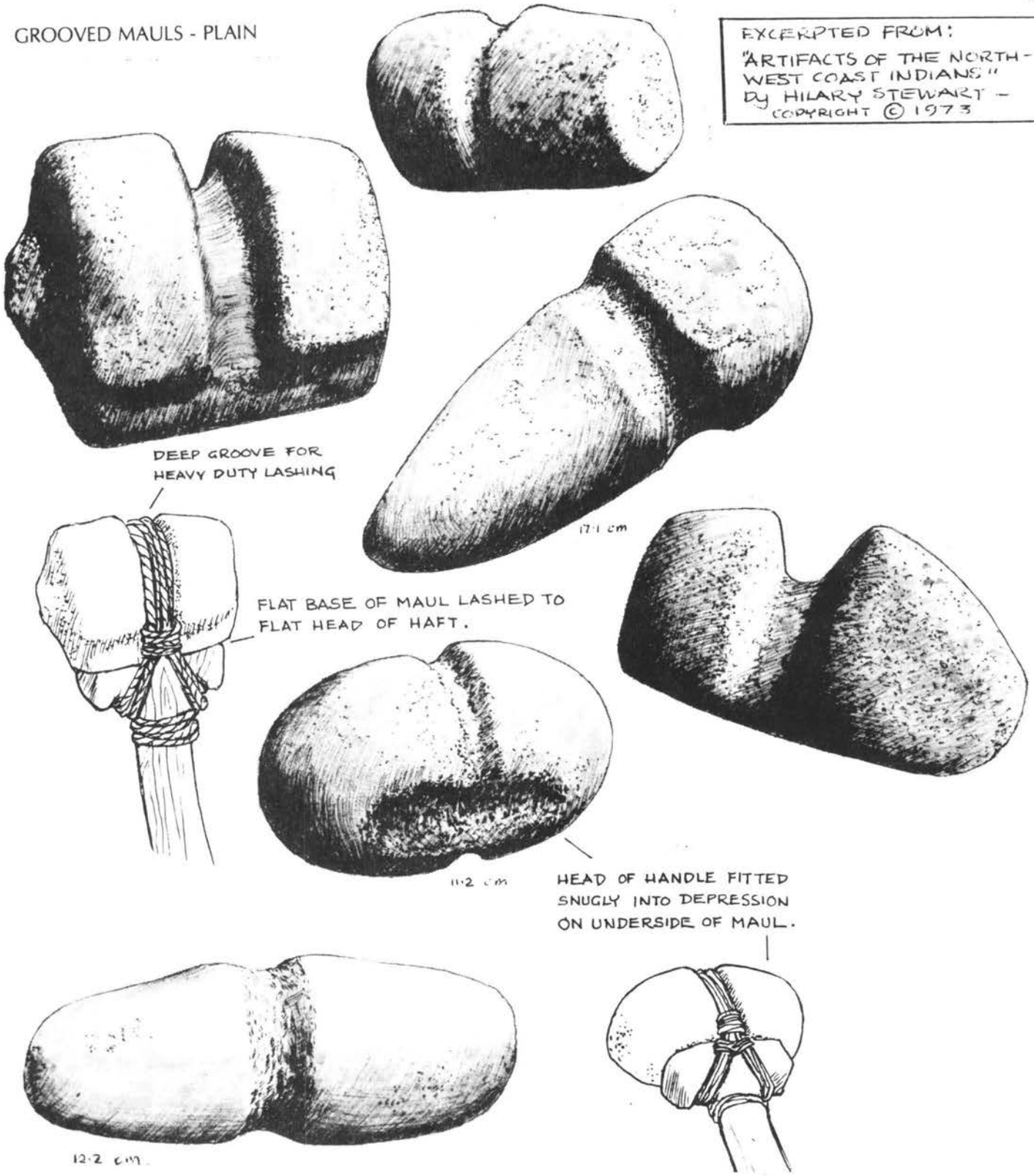
And, said Mr. Williams, "we will no longer deaccession material to dealers and collectors."

Still under investigation are allegations that Dick Cavett, the television personality obtained items under questionable circumstances, and that James Economos, a dealer in American Indian art, who dealt with the museum kept inadequate records of his transactions.

(It was, of course, Dr. Dockstader who wrote to The Archaeological Society of B.C. last year to complain about a Midden article reporting the discovery of a "lost" seated bowl figure in the Museum of the American Indian. The item, he said, "gives the impression that our storage is not in good shape, and that we don't know what we have....I feel that we have exercised good custodianship of our properties."

Ed.)

GROOVED MAULS - PLAIN



The grooved maul is a tool of the north, found among the Tsimsian, Haida and Tlingit peoples, and is in strong contrast both in design and method of use, to the hand maul of the south. A hammer head, rather than the complete hammer, the grooved maul was hafted to a wooden handle cut from a tree branch. It was securely lashed on with twisted cedar withe, spruce root or raw hide, the latter used wet so that it tightened up when it dried.

In use, the maul was swung in the hands much like a sledge hammer, and would be used for pounding in large wedges for splitting planks, driving stakes into a river for a fish trap, and other heavy duty needs.

REVIEW

CARLSON, Roy, Ed. Current Research Reports. Burnaby, Simon Fraser University, Department of Archaeology, 1976. (Publication, #3) $8.00 from the Department (includes postage if prepaid).

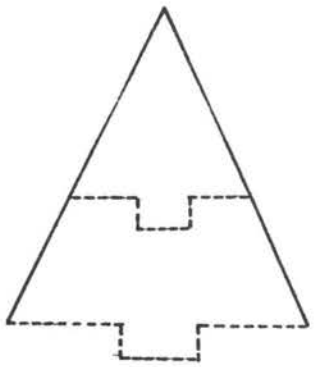
Archaeology in print is something we would all like to see more of in B.C. The new publication from S.F.U. is a welcome addition to the growing list. It consists of 14 articles including an interesting introductory one on Ethno-archaeology by Dr. M. Stanislawski, a pioneer in an increasingly important field. Of the other 13 articles, 9 deal with work in B.C. Names of a few sites will give Archaeological Society members an idea of the scope of the book - Katz, Whalen Farm, Quatsino Sound, Crescent Beach and Agassiz are all included. Focus of the studies ranges from random sampling to salvage digs, from pithouses to fish traps and much more. There is a report on the continuing search for obsidian sources in B.C., in the Anahim Peak area, and a fascinating study, of special current interest to members, of the skeletal pathology of human remains at Crescent Beach.

Most of the articles, while not written for the layman, are perfectly comprehensible and of considerable interest to the amateur archaeologist. The clear, concise and detailed reports are accompanied by numerous maps, diagrams, charts and photographs of artifacts, most of which have reproduced very well.

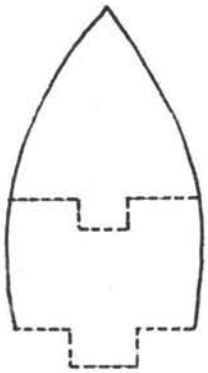
It is not within the competence of this reviewer to discuss the technical data contained in the publication; no doubt the experts will do that in learned journals. However, readers of The Midden will find this is a most worthwhile publication, emphasizing once again the variety and vitality of archaeological work in B.C. S.E.R.

(Part of a continuing series on artifact description, reproduced from the handbook for archaeological staff working on the National Inventory Project in B.C. The Midden extends thanks to Tom Loy of the Provincial Museum for permission to reprint.)

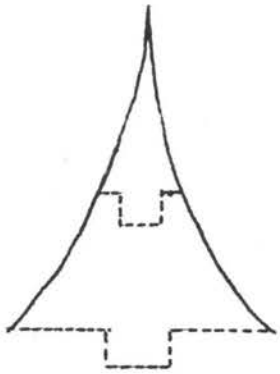
Blade Forms



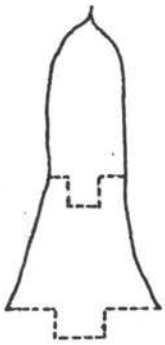
A. straight



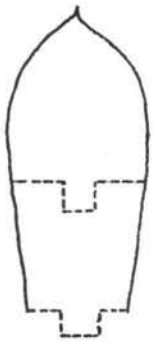
B. excurvate



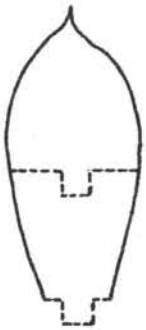
C. incurvate



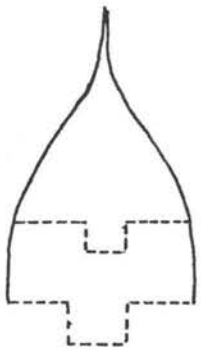
D. recurved



E. parallel-excurvate



F. contracting excurvate



G. bicurvate

A. straight blade: when a line is drawn from the apex to the tip of the shoulder, the blade roughly follows it

B. excurvate blade: when a line is drawn from the apex to the tip of the shoulder, the blade falls outside it

C. incurvate blade: when a line is drawn from the apex to the tip of the shoulder, the blade falls inside it

D. recurved blade: a combination of excurvate and incurvate forms on a single blade where from the apex to the shoulder an excurvate blade becomes incurvate.

E. parallel-excurvate blade: a combination of excurvate and straight blade forms where from the apex to the shoulder an excurvate blade becomes both straight and parallel to the longitudinal axis

F. contracting-excurvate blade: a combination of excurvate and straight blade forms where from the apex to the shoulder an excurvate blade becomes straight and forms an acute angle to the longitudinal axis

G. bicurvate blade: a combination of incurvate and excurvate blade forms where from the apex to the shoulder an incurvate blade becomes excurvate.

Plan ahead

THREE CONFERENCES ANNOUNCED

1. CAPTAIN COOK, AT S.F.U.

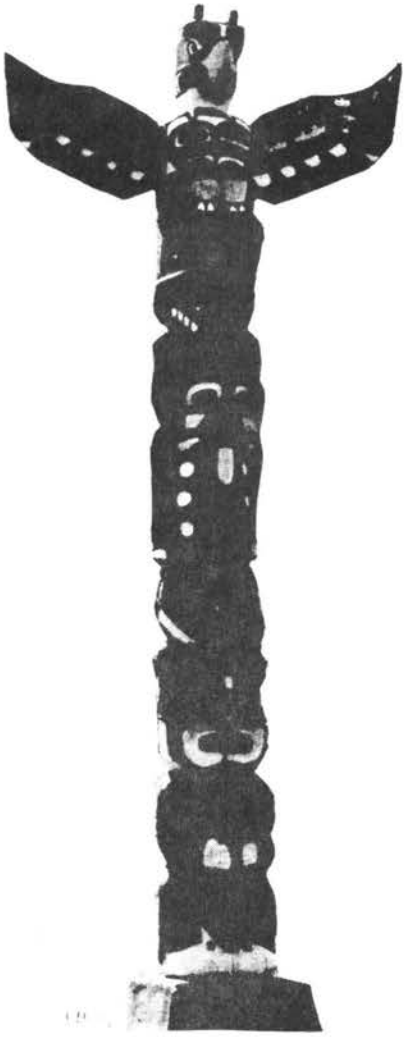
Captain James Cook will be the subject of a giant, international symposium at Simon Fraser University in two years' time.

Set for mid-April, 1978, the interdisciplinary conference marks the bicentenary of Captain Cook's landing at Nootka Sound.

The S.F.U. History Department has fathered the symposium, which will concentrate on the impact of Cook's tours.

2. UNDERWATER STUDIES, IN OTTAWA

January 5 - 8, 1977: 10th Annual Conference of the Society for Historical Archaeology and 8th International Conference on Underwater Archaeology at the Government Conference Centre and Chateau Laurier Hotel, Ottawa. General Chairman: Jervis D. Swannack, National Historic Parks and Sites Branch, Dept. of Indian and Northern Affairs, 1600 Liverpool Cour-, Ottawa, Ontario K1A OH4. SHA Program Chairman: DiAnn Herst (address as above); ICUA Program Chairman: Walter Zacharchuk (address as above). (Courtesy of Ontario Archaeological Society newsletter)



3. ATHABASCANS, IN CALGARY

For the past eight years the University of Calgary Archaeology Association has hosted an annual conference on selected themes concerning the prehistory of North America and with archaeology abroad. In November this year the focus is on a problem of interest to archaeologists working in the sub-arctic regions of North America.

Tentative sessions will include regional topics (i.e., The Athabascans of the MacKenzie Drainage, Athabascans of interior Alaska, etc.), and problem-orientated symposia (the archaeological visibility of the Athabascans, post-contact phenomena, ethnology and linguistics, ecological adaptations). It is seven years since the Association's conference has dealt specifically with Athabascan archaeology. The organizers are encouraging a multidisciplinary approach and inviting students of Archaeology, Anthropology, Geography, Biology, History and Art to participate.

People wanting to participate or to present a paper can write to: James Helmer, Program Committee, Department of Archaeology, University of Calgary, Calgary, Alberta.

ESTIMATED TO COST $300,000

Museum planned

BY RON PERCIVAL

Plans are under way for a $300,000 museum at Cape Mudge Village to house an extensive collection of local Indian art now in the possession of the National Museum, The Upper Islander has learned.

Funding for the Kwakiutl council project is expected to come from a variety of sources, including the National Museum, the provincial government and private foundations.

A design by Campbell River architect Alan Murnaghan providing for more than 7,000 square feet of display and work area has been selected for the project.

The innovate design of the building will allow totems to stand their full height in a shaft open on all three floors of the structure.

The outside of the museum will resemble the shell of a hermit crab when viewed from above, and the finish will be entirely of wood.

Negotiations between the National Museum in Ottawa and the Kwakiutl council have been under way for several years on the return of the collection.

According to sources close to the project the National Museum wants to return the collection as part of its policy of decentralization.

It s only requirement is that a proper museum be built to receive the collection including temperature and humidity controls, public display areas, trained personnel and an ongoing cultural program.

The display artifacts including an outstanding collection of ceremonial masks, were seized by the federal government in the 1920s at a Kwakiutl potlatch on Village Island.

The seizure was used to set an example to the Kwakiutl people, since potlatching was illegal under the Indian Affairs Act at that time.

The confiscated materials including masks, regalia and other ceremonial items, somehow came into the hands of the National Museum.

The law prohibiting potlatching quietly came off the books in the 1950s.

Another museum is also being constructed at Alert Bay under a similar arrangement to house some of the collection, which will be divided between the two structures by the Kwakiutl council.

Museum organizers hope the new structures will create an environment for traditional Indian dancing and fine arts, in addition to displaying the artifacts.

Organizers hope construction will commence in 1976 on the Cape Mudge museum.

Wednesday, Jan. 14, 1976 Campbell River Upper Islander

HANSON PROTESTS DESTRUCTION OF SITE

Former archaeologist writes to paper

VICTORIA TIMES, FRIDAY, APRIL 23, 1976

Historical Blanks

Last week the only intact archaeological site known to remain in Victoria's Inner Harbor was discovered, then summarily destroyed. This precious record of human activity which spanned thousands of years prior to the advent of Europeans in this area was lost forever under the blade of a backhoe.

The minister of recreation and tourism, Grace McCarthy, had the power to take action to save the site, or at least have a proper investigation carried out prior to its destruction but unfortunately for us and ensuing generations she did nothing.

An archaeological site is a vast repository of cultural and environmental information somewhat analogous to the provincial archives for the historic period. The site destroyed last week on Store Street next to the present location of Capital Iron undoubtedly contained information about the duration of human occupation in the Inner Harbor, the changes in technology through time as evidenced by the kinds and styles of tools in the various cultural layers, and the resources utilized at the site as evidenced by the plant and animal remains accompanying the tools.

Province-wide, British Columbia has suffered a terrible loss of non-renewable heritage resources with literally thousands of archaeological sites drowned under hydro-electric projects, and destroyed by road and rail construction and other forms of land altering activity.

The loss suffered last week on Store Street was particularly tragic because that site represents the only complete site we had left and so now the Inner Harbor joins the Libby Dam pondage, the Bennett Dam pondage, the Mica pondage, Tweedsmuir Park, etc., etc., as blanks in human history forever. A moment of silence for Victoria's pre-history. — Gordon Hanson, former assistant provincial archaeologist, 910 McClure Street.

INDUSTRIAL ARCHEOLOGY: RECONSTRUCTING THE PAST

It may not be Pompeii, but young excavators are finding something they treasure—clues to America's earliest industries and factories

By Jerry E. Bishop

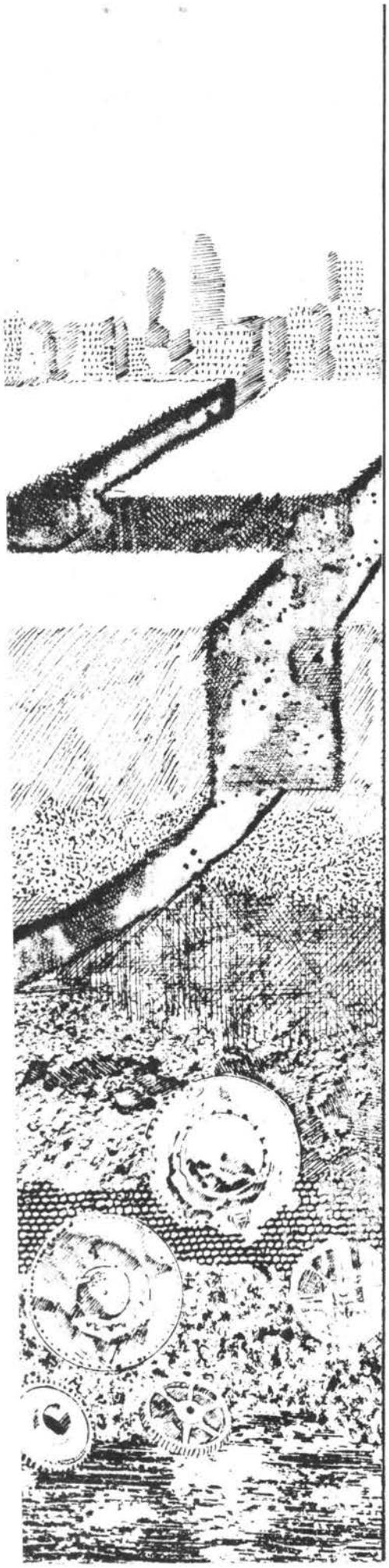
Imagine that you're watching the excavation of some ancient city. The site of the archeological "dig" is marked by a grid of white string and stakes. A group of college students and local laborers hacks away with pick and shovel in a 1.2-meter-deep pit, carefully uncovering crumbling brick and stone walls.

It takes only a glance upward, however, to dispel any notion this is the actual site of an ancient city. In reality, it is a vacant lot in a litter-strewn, partially abandoned industrial district only a few blocks from downtown Paterson, New Jersey. In the distance can be seen streams of traffic rushing along the interstate highway, and constantly there is the roar of diesel-powered city buses pulling in and out of an old trolley barn nearby.

Yet here, archeologist Ed Rutsch, a bearded giant of a man, was uncovering, with his crew of 20, the ruins of the boiler shop of the Rogers Locomotive Works, an enterprise that, beginning in the 1830s, built many of the steam railroad engines that conquered the American West, supplied the armies of the U.S. Civil War and even hurled along the new tracks of the Trans-Siberian Railroad.

Bridging the Gaps

Poking around in the remains of an old factory may not seem as romantic as uncovering an ancient Greek amphitheater. But it is a pursuit that is intriguing a growing group of scholars



"American cities are being buried several times faster than the ancient city of Troy"

ranging from architects and engineers to historians and anthropologists.

They dub themselves "industrial archeologists" and use the same techniques used to unravel the mysteries of ancient civilizations. These researchers are trying to discover and record how American industry moved from colonial cottages to the vast mechanized and automated complex of today. Although the Industrial Revolution began in the United States only about 200 years ago, there already are tremendous gaps in the knowledge of how it occurred. Records and artifacts of entire industrial processes, including some in use as recently as the 1920s, either have been lost or, often, were never made. And the machines and buildings that would give clues to how an industry evolved are rapidly being destroyed or buried by parking lots, housing developments and new factories. If Paterson is any indication, American cities are being buried several times faster than the ancient city of Troy; the archeologists in Paterson found foundations barely a century old at depths of 2.4 to 3.6 meters, Rutsch says. It took 5,000 years for 15 meters of debris to build up over ancient Troy.

Tombs, Temples and Terminals

"We have good records of churches, houses and wars" in the form of documents, photographs and preserved buildings, forts, cannon and the like, Rutsch says, "but we have very incomplete records of industrial processes." For example, little is known about the foundries, forges and other tools used to make early locomotive engines. "People just didn't note these kinds of things down," the archeologist says.

In an attempt to recover such knowledge, industrial archeologists seek out and study what they call "industrial monuments," which are analogous to the tombs and temples sought by the classical archeologist. An industrial monument "is any relic of an obsolete phase of an industry or transport system, ranging from a Neolithic flint mine to a newly obsolete aircraft or electronic computer," says R. A. Buchanan, an industrial archeologist at the University of Bath in Britain.

The industrial archeology movement sprouted in Britain in the 1950s and since then has spread to the United States where a fledgling Society for Industrial Archeology already has more than 500 members. In addition, Rensselaer Polytechnic Institute in Troy, New York, has established an Institute of Industrial Archeology, and since 1969, the U.S. National Park Service has operated the Historic American Engineering Record, a program that sends out teams of specialists to survey and make records of historic industrial sites and structures.

"Industrial knowledge is becoming increasingly difficult to retrieve," says Paul B. Daitch, dean of engineering sciences at Rensselaer. For example, he notes, the icehouse that was once widely used to preserve food is obsolete and the knowledge of how to build one is being lost, as well as knowledge of other food preservation techniques used in the prerefrigeration era. Although there are written engineering specifications and technical manuals for many products and techniques, most companies retain the records of discontinued products, such as the icehouse, for only 21 years, and then they are destroyed.

That is why American industrial archeologists are so anxious to beat

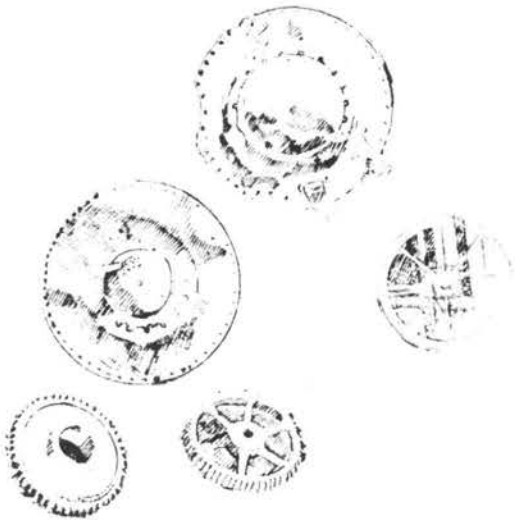
Illustration by Alan E. Cober

the wrecking ball to the few remaining industrial relics of the 1800s. Their hunting grounds are the aging industrial cities of the American Northeast that seem to have stagnated sometime around World War I.

Water was the Key

One of the areas is Troy, New York, and its environs at the convergence both of the Hudson and Mohawk Rivers and of the Erie and Champlain Canals. Troy seems like a sprawling open-air, still-occupied museum, a reminder that, unlike Britain, where the Industrial Revolution was spurred by the steam engine, industry in the United States owes its birth mostly to water power.

In a gorge known as the Poesten Kill, where a stream begins a precipitous 60-meter drop to the Mohawk River, there are still remnants of pits, tunnels and channels, called raceways, hacked out of solid rock along the stream's edge and the sides of the gorge. There, in the early 1800s, millwrights diverted water from above a fall through a raceway to a vertical pit or pipe at or near a mill. The dropping water would then turn a water turbine and provide the rotary motion to run machines. The water turbine is not only a more efficient power unit than the waterwheel but, unlike the waterwheel, it can be installed with its rotating shaft either vertical or horizontal.



In the Poesten Kill, an early water-turbine pit is only about 2.4 meters deep and 1.2 meters in diameter; a small turbine there probably provided only a few horsepower. But in the musty basement of a huge five-story building that stretches nearly 270 meters along the Mohawk are three long-silent, giant water turbines of the old Mastodon Mill, the pride of the now-defunct Harmony Manufacturing Company (and named for mastodon bones found on the site when it was built). Water plunging through 260-centimeter diameter pipes into these vertical-shaft turbines in the 1870s provided 1,200 horsepower. The turbines drove 3.6 kilometers of shafting, turning 16 kilometers of belts, operating 70,000 yarn spindles and 1,500 looms, altogether turning out 54,000 meters of cotton cloth a day.

Preserving such "monuments" of industrial evolution isn't easy. Unlike architecturally unique homes or churches, old factories not only are seeming eyesores but they rarely can be adapted for any modern use. The Mastodon Mill currently is occupied by a variety of small textile manufacturers using electricity. Not all factories are so fortunate.

The archeologists, however, have scored in Paterson, the nation's first planned industrial community, dating from the 1790s when Alexander Hamilton, a shrewd politician and financial genius, and some friends formed the Society for Useful Manufactures, bought up the farms around the Great Falls of the Passaic River and began selling factory sites. Paterson quickly became a major textile center, noted for its silk production, which led to the production of textile machinery. From its peak in the 1870s and 1880s, this industrial district went into a gradual, steady decline until now it is little more than 60 grimy brick buildings.

In 1971, when part of the district was threatened by highway expansion, a citizens' group began trying to get the district declared a national urban park. That led to a study by a team from the Historic American Engineering Record, which revealed that most of the existing buildings had been built after the Civil War and that even these had been extensively modified over the succeeding decades.

A Plethora of Files

Aside from scanty records of deeds, inventories and the like, evidence of how the engineers of the early 1800s transformed textile factories into locomotive works is either gone or buried under a century of industrial debris, the team reported.

Among the lost technologies is how factories in the eastern United States employed intricate systems of canals and raceways such as existed at Paterson to power their foundries, forges and machine shops.

Thus it was that last summer Ed Rutsch, an anthropologist turned archeologist, and his crew began digging into the vacant lots in this particular district.

So far, the archeologists have uncovered foundations for forge drop hammers, which might give clues to the size and power of the hammers; pits, filled with iron scalings, that might have been the source of air for furnaces; and scores of other industrial artifacts.

The diggers' most exciting moment, however, was when they broke into a large underground drain or tunnel arched over with brick. It turned out to be one of the three original raceways down which water diverted from above the Great Falls poured to power factories built along the raceway. Thought to have been destroyed, the raceway was still intact, complete with old turbine pits, having been merely covered over as factories were built and expanded.

All the excavations are carefully refilled after the archeologists make their measurements and records. Rutsch, who calls himself an ardent "preservationist," says "no doubt in 100 years it will be important for this to be dug again" to answer new questions about U.S. industrial history. ■

Jerry Bishop has been a writer for *The Wall Street Journal* for 20 years, covering advances in science and medicine, as well as the national space program.

TIME FOR EIGHT IMPORTANT QUESTIONS

The A.S.B.C.'s tenth anniversary is a suitable moment for reflection and review. This is also timely with the change of Society presidents, at the June Annual General Meeting.

Accordingly, the Society executive invites your opinions about the organization's aims and activities. Would you please take a few moments to complete the following questionnaire (unashamedly borrowed from a fine survey recently run by our sister group in Ontario), tear off and mail in? Many thanks.

Nick Russell, retiring President

1. Name:

2. Would you like to participate in More, Less or the Same amount of the following?

	More	Less	Same	Comments & Suggestions
A. Excavation				
B. Non-credit night courses				
C. Field trips				
D. Weekend courses				
E. 1. Lectures of B.C. Arch'y				
E 2. Lectures on Arch'y in other provinces				
E. 3 Lectures on non-Canadian Archaeology				
F. Lab work with professionals				

3. Do you think the Society should do More, Less, Same of ...?

A. Political Lobbying				
B. Newsletter publication				
C. Scholarly publications				
D. Social functions				
E. Education of the public				
F. Expanding the book collection				

4. What did you find most rewarding in your membership?

5. What do you think should be the primary purpose of the A.S.B.C.?

6. How do you think the Society should change in its second decade?

7. What changes would you like to see in The Midden?

8. Would you like to participate more actively in the A.S.B.C.? How?

Please stick in envelope, or simply fold this sheet, staple, and mail to:

Mrs. S. Veale
A.S.B.C. Corresponding Secretary
1406 Paisley Road,
North Vancouver, B.C.