

BRITISH COLUMBIA PROVINCIAL MUSEUM
Report of the Year 1968

PROVINCE OF BRITISH COLUMBIA



DEPARTMENT OF RECREATION AND CONSERVATION

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BRITISH COLUMBIA
PROVINCIAL MUSEUM

REPORT FOR THE YEAR 1963



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1963

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To Colonel the Honourable JOHN R. NICHOLSON,
P.C., O.B.E., Q.C., LL.D.,
Lieutenant-Governor of the Province of British Columbia.

MAY IT PLEASE YOUR HONOUR:

The undersigned respectfully submits herewith the Annual Report of the
British Columbia Provincial Museum for the year 1968.

W. K. KIERNAN,
Minister of Recreation and Conservation.

*Office of the Minister of Recreation and Conservation,
January, 1969.*

BRITISH COLUMBIA PROVINCIAL MUSEUM,
VICTORIA, BRITISH COLUMBIA, January, 1969.

*The Honourable W. K. Kiernan,
Minister of Recreation and Conservation,
Victoria, British Columbia.*

SIR,—The undersigned respectfully submits herewith a report covering the activities of the British Columbia Provincial Museum for the calendar year 1968.

I have the honour to be,

Sir,

Your obedient servant,

G. CLIFFORD CARL,
Director.

✓

DEPARTMENT OF RECREATION AND CONSERVATION

The Honourable WILLIAM KENNETH KIERNAN, *Minister.*

H. G. McWILLIAMS, *Deputy Minister.*

BRITISH COLUMBIA PROVINCIAL MUSEUM

STAFF

G. CLIFFORD CARL, PH.D., *Director.*

J. BRISTOL FOSTER, PH.D., *Assistant Director* (from July 5th).

CHARLES J. GUIGUET, M.A., *Curator of Birds and Mammals.*

W. JACK SCHICK, B.A., *Assistant Curator of Birds and Mammals* (from November 18th).

ADAM F. SZCZAWINSKI, PH.D., *Curator of Botany.*

T. CHRISTOPHER BRAYSHAW, PH.D., *Associate Curator of Botany.*

DONALD N. ABBOTT, B.A., *Curator of Archæology.*

JOHN H. W. SENDEX, *Assistant in Archæology.*

PETER L. MACNAIR, B.A., *Curator of Ethnology.*

ALAN L. HOOVER, B.A., *Assistant Curator of Ethnology* (from May 1st).

CAROLYN M. CASE, B.A., *Curator of History* (to April 30th).

ERIK THORN, *Chief of Displays.*

FRANK L. BEEBE, *Illustrator and Museum Technician.*

PHILIP R. WARD, *Conservator.*

JOHN H. SMYLY, *Technician.*

MICHAEL D. MILLER, *Assistant in Museum Technique* (to July 31st).

GEORGE H. E. MOORE, *Museum Adviser* (to May 31st).

WILMA A. WOOD, *Education Officer* (from October 1st).

EDGAR M. MULLETT, *Shopman.*

ALEX M. JAMES, *Display Technician.*

THOMAS L. PUTNAM, *Display Technician.*

LLOYD G. COOK, *Display Technician.*

TONY KONINGS, *Display Technician.*

JACK E. WATERS, *Display Technician.*

SHEILA Y. NEWNHAM, *Herbarium Technician.*

NANCY I. HAYDEN, *Archæological Technician.*

GARY P. GREEN, *Apprentice.*

MARGARET CRUMMY, B.A., *Clerk-Stenographer.*

HELEN M. BURKHOLDER, *Clerk.*

KAY ROMANIK, *Clerk-Typist* (from August 14th).

DEANNA M. STANDAL, *Clerk-Stenographer* (from September 20th).

CLAUDE G. BRIGGS, *Attendant* (to May 31st).

GORDON KING, *Relief Attendant.*

WILLIAM CRAWFORD (Student), *Summer Assistant.*

JOHN HALL (Student), *Summer Assistant.*

KNUT FLADMARK (Student), *Summer Assistant.*

FRASER SMITH (Student), *Summer Assistant.*

TOTEM-POLE RESTORATION PROGRAMME

HENRY HUNT, *Chief Carver.*

E. C. (TONY) HUNT, *Assistant Carver.*

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DEPARTMENT OF RECREATION AND CONSERVATION
The Honorable William Bennett, Minister
H. C. McPherson, Deputy Minister
BRITISH COLUMBIA PROVINCIAL MUSEUM
STAFF
D. Christie, Curator, Field Museum
I. Bartol, Director, Field Museum (from July 1968)
Charles I. Goulet, M.A., Curator of Birds and Mammals
W. Jack Smith, B.A., Assistant Curator of Birds and Mammals (from November 1967)
Alan F. Stevenson, Ph.D., Curator of Bones
T. Christopher Branson, Ph.D., Assistant Curator of Bones

BRITISH COLUMBIA PROVINCIAL MUSEUM

OBJECTS

(a) To secure and preserve specimens and other objects which illustrate the natural history and human history of the Province.

(b) To increase and diffuse knowledge in these fields by research, exhibits, publications, and other means.

(Section 4, *Provincial Museum Act, 1967*, chapter 41, S.B.C. 1967.)

ADMISSION

The Provincial Museum is open free to the public. In 1968, from January 1 to August 16, the hours were: Week-days, 8.30 a.m. to 5 p.m.; Saturdays, 9.30 a.m. to 5 p.m.; and on Sunday afternoons, 1 to 5 p.m. July and August: Week-days, 8.30 a.m. to 9 p.m.; Saturdays, 9.30 a.m. to 9 p.m.; Sundays, 1 to 5 p.m.

After August 16th (when the new building was opened), hours were: Monday through Saturday, 10 a.m. to 8.30 p.m.; Sunday, 1 to 4.30 p.m. After September 30th, hours were: Mondays, closed; Tuesday through Saturday, 10 a.m. to 4.30 p.m.; Sunday, 1 to 4.30 p.m.

SHIRLEY NEWSON, Assistant Curator
NANCY I. HARRIS, Assistant Curator
GARY P. CHASE, Assistant Curator
MARGARET CHASE, B.A., Assistant Curator
HELEN M. BURKILLER, Clerk
KAY ROSSIGNOL, Chief Typist (from August 1967)
LEONOR M. STANLEY, Chief Stenographer (from September 1967)
CLAUDE G. BRUCE, Assistant (to May 1967)
GORDON KANE, Relief Assistant
WILLIAM CHAWTON (Student), Summer Assistant
JOHN HALL (Student), Summer Assistant
KURT FLAETZ (Student), Summer Assistant
FRANK SMITH (Student), Summer Assistant

TOTEM POLE RESTORATION PROGRAMME

Henry Hunt, Chief Curator
E. C. (Tony) Hunt, Assistant Curator

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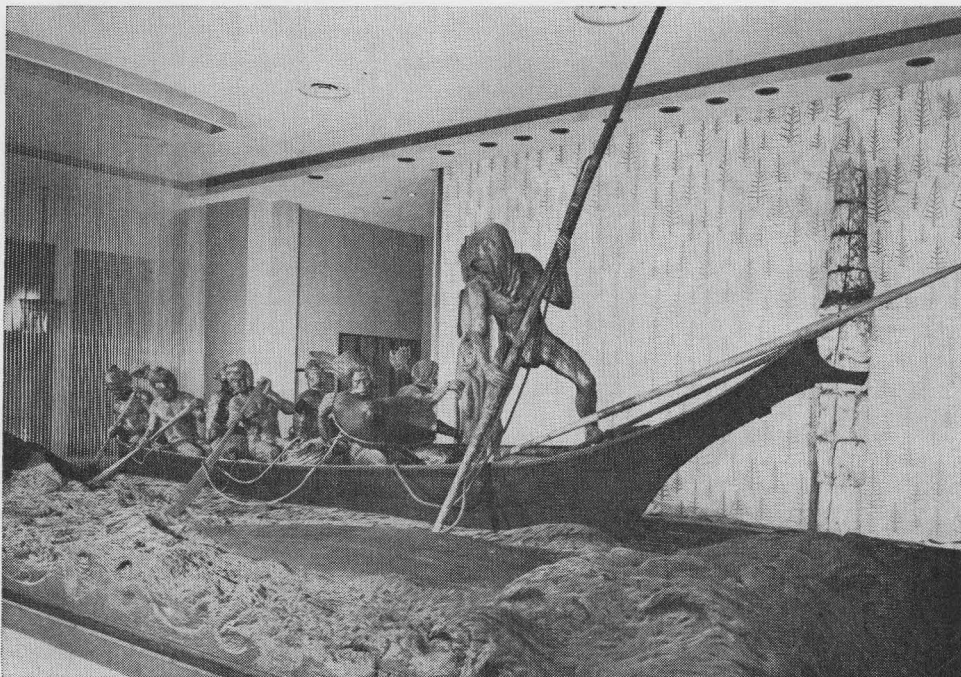
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Major event of 1968 was the combined dedication of Heritage Court and the opening of the new Museum Building.



Entrance hall of new Museum features full-size diorama of a dramatic moment in Nootka whale hunt, reproduced in red and yellow cedar by Mr. Lionel Thomas.

Report of the Provincial Museum

For the Year 1968

REPORT OF THE DIRECTOR

A truly major event in the history of the Provincial Museum took place in 1968 to make it an outstanding year. This was the combined dedication of Heritage Court and the opening of the new building, the first of three units in the complex being constructed as British Columbia's Centennial project.

Preliminary to the event was the dedication of the Carillon Tower before a large public gathering on March 9th. The tower occupies the north-west corner of Heritage Court immediately in front of the new Archives Building and houses a set of 49 bells cast by H. Petir Fritsen Company in Holland and donated to the people of this Province by the Netherlands community of British Columbia.

The official opening of the large public services building of the Provincial Museum was originally planned for July 19th, but a short labour strike called because of the employment of non-union carpet-layers by a sub-contractor halted all construction for eight days commencing July 5th. This created a serious delay, which necessitated postponement of the opening one month to August 16th.

This unexpected "breathing spell" was put to good use, but there was still a hectic last-minute rush in installing exhibits, cleaning glass, and checking equipment before opening the building to the public.

Fortunately the unusually poor weather cleared off and the sun actually shone on the appointed day, permitting the ceremony to take place outdoors as planned. Those taking part included Mr. L. J. Wallace, Deputy Provincial Secretary, as general chairman; the Honourable J. R. Nicholson, Lieutenant-Governor of the Province of British Columbia; the Honourable S. R. Basford, Minister of Consumer and Corporate Affairs, Government of Canada; Mr. George Farmer, contractor; the Honourable W. N. Chant, Minister of Public Works; Canon G. B. Baker, Victoria Council of Churches; and the Honourable W. A. C. Bennett, Prime Minister, Government of the Province of British Columbia.

The dedication, ribbon-cutting, and official tour of the building were followed by a carillon concert by Mr. H. Bergink, carillonneur, after which tea and refreshments were served to the guests and to the general public.

The new building is a large rectangular structure measuring about 300 by 100 feet, with two floors above ground-level and one below. The main doors open into a spacious entrance hall, in which is featured a full-size diorama of a dramatic moment in a Nootka whale hunt, reproduced in red and yellow cedar by Mr. Lionel Thomas, of Vancouver. The sculpture which sets the theme of the exhibit galleries—"Man and Nature in British Columbia"—is flanked by a "rain curtain" at either end, symbolic of the ample water supply with which the Province is blessed. The "big tree" design seen on the entrance doors and push-plates is repeated in graffiti on the side walls. Totem poles stand on either side, and some extend up the escalator shaft, enabling visitors to view them from changing levels.

An information desk, checkroom, washrooms, public lounge, tearoom, and sales counter are all immediately available to the entrance hall, and corridors provide access to administration and education offices as well as classroom, activity room, and lecture theatre.

The latter has been named Newcombe Auditorium in honour of Dr. Charles F. Newcombe and his son William, pioneer naturalists and historians. It will accommodate 572 persons and is equipped with modern projection and sound equipment.

From the entrance hall an escalator and an elevator are available to transport visitors to the exhibit galleries on the floors above.

The second floor, which runs the full length of the building and has a ceiling height of 22 feet, is devoted to exhibits relating to the natural history of the Province. An introductory section gives the visitor a quick review of the geological history of British Columbia, with some emphasis on the recent ice age, which has determined so greatly the nature of our flora and fauna. An area earmarked for an eventual "Hall of the Sea" is by-passed, leading the visitor into a section devoted to the ecology of the Dry Interior, followed by exhibits featuring the coastal biotic areas. Major exhibits are in the form of dioramas displaying big-game animals in typical habitats.

The third floor covers the same area as the second and is devoted to telling the story of man in British Columbia. Exhibits in the introductory section show man's place in nature and the evolution of culture, followed by material on early explorers, fur-traders, the gold-rush, and the pioneer era. A major part of the floor area features the arts and handicrafts of the natives of the Province arranged according to the main linguistic groups. Two special exhibits are a replica of a Kwakiutl building containing ceremonial objects and a gallery of north-west coast art.

A small public lounge opens off each exhibit floor, each with an interesting view of the government grounds and a portion of the inner harbour. Each lounge is panelled in native woods and features an attractive piece of art by British Columbia artists.

A basement level, with a large service entrance off Belleville Street, accommodates a receiving area, a fumigation chamber, workshop, display studio, staff lockers, several storage areas, and mechanical rooms. Underground passageways lead to the curatorial tower and archives and to the power-house at the rear of the Douglas Building.

The Museum Building, like the others under construction, has been designed to harmonize with the surroundings. The stone facings, copper roof flashings, arch effects, and other features repeat elements found in the Parliament Buildings but in modern form.

Since early 1964, when initial planning started, and through the ensuing years of plan development, moving, and settling into new quarters, the senior members of the Museum staff have been deeply involved. During the process we have been associated with a host of specialists, such as architects, planners, engineers, specification writers, designers, contractors, suppliers, and various supervisors. It has been a most exhilarating, engrossing, and at times exhausting experience, but at the same time a most gratifying one. At all levels we have received outstanding co-operation, particularly in our association with officials of the Department of Public Works. We wish here to express our appreciation to them for the many courtesies granted us during this exciting time.

END OF AN ERA: CLOSING OF THE OLD BUILDING

While last-minute preparations were being made for the official opening of the new structure, a little ceremony was enacted at the entrance to the old building to mark its closing as a public area. Before a small gathering of newsmen and the

general public, the Honourable W. K. Kiernan, Minister of Recreation and Conservation, made the following remarks:—

“In view of the long service this building has rendered to the people of the Province of British Columbia and our many visitors, we felt it would be fitting to commemorate this occasion.

“The Museum has served us for 81 years since it was officially opened. It has occupied these quarters since May 24, 1897, following the construction of these Legislative Buildings.

“At 3 p.m. today the new Museum Building will be officially opened, and we will enter a new era in this field with a vastly enlarged potential.

“It is well, however, in looking to the future, that we pause a moment to pay our respects to the past.

“While these offices will be occupied as an administrative and storage area pending the completion of the Heritage complex, it is today, the 16th of August, 1968, at 12.05 p.m., we officially close this building as a museum. (Dr. Carl, will you please post notice to that effect.)

“On behalf of the staff and all those who, down through the years, have contributed to the success of this cultural activity, I say good-bye old friend, you have served us well.”

While the old building was closed on that date as an exhibit area, Museum staff and collections continue to occupy it until new quarters are ready in the Curatorial Tower under construction.

In the meantime, of course, and despite the innumerable calls upon the time of staff members by the events as outlined above, the usual activities of the Museum were carried on as normally as possible. The details are given in the following sections.

FIELD WORK

NATURAL HISTORY DIVISION

Two types of field work were carried on in natural history in 1968—one concerned largely with collecting material for exhibits and one concerned with research.

In the first category were trips to several parts of the Province, as follows:—

Nanaimo Lakes Valley, April 8th to 12th: Dr. C. Brayshaw, Mr. E. Mullet, and Mr. T. Putnam to collect wood slabs with bark attached for reproducing Douglas fir and red cedar trees in a Coastal Forest diorama under construction. (NOTE.—Labour and transportation of the slabs to Victoria were provided by MacMillan Bloedel.)

Nelson and New Denver Districts, June 13th to 17th: Dr. Brayshaw, Mr. C. J. Guiguet, Mr. F. L. Beebe, and Mr. Putnam to select a locale and to collect plant materials for use in a diorama of the Columbia Forest in the early planning stage.

Cassiar District, August 5th to 13th: Dr. Brayshaw, in company with Dr. Stuart S. Holland of the Department of Mines and Petroleum Resources, to collect plant materials for the Northern Alplands diorama under construction.

Chilcotin Plateau, October 1st to 6th: Dr. J. B. Foster, Mr. Guiguet, Dr. Brayshaw, and Mr. H. Monahan to select a locale and to collect material for a Cariboo Parklands diorama in early planning stages.

Nanaimo Lakes Valley, September: Mr. Guiguet made several short visits in connection with gathering material for the Coastal Forest diorama.

Peace River District, October: Mr. Guiguet investigated report of animals being drowned by waters rising in Williston Lake; the report was unconfirmed.

Kootenay District, June 5th to 12th: Dr. Brayshaw and Mr. J. Derrick of the Department of Public Works to collect samples of native plants suitable for landscaping. Living specimens representing about 100 species were transferred to Government House nursery for eventual use in Heritage Court. Dr. Brayshaw also made several other short trips to local areas with Mr. L. Butterworth and Mr. V. W. Ahier for the same purpose.

Field research projects were as follows:—

Gulf Islands, August 22nd to 30th: Dr. Brayshaw and Mr. W. Crawford in company with Dr. T. M. C. Taylor to examine several sites proposed for ecological reserves in connection with an international biological programme.

Saanich Peninsula, 1968 season: Dr. A. F. Szczawinski and Mr. Crawford continued the programme of studies of plant communities on Saanich Peninsula commenced in 1966. Results are being readied for publication.

Government House grounds, 1968 season: Dr. Szczawinski initiated studies of the plants associated with Garry Oak.

General botanical collecting: Botanical research material was collected on a number of local trips and incidental to field work on other projects.

Islands of Barkley Sound, July 31st to August 23rd: Mr. Guiguet continued the long-term study of insular distribution of small mammals by trapping a number of islands, including Dixon, Tzartus, Bauke, and Taylor.

Cariboo District, September: Mr. E. Thorn made collections of local invertebrates, mainly spiders, millipedes, and centipedes.

HUMAN HISTORY DIVISION

The following projects were embarked upon for the Human History Division:—

Mayne and Galiano Islands, May 1st to August 9th: Mr. J. Sendey and a small crew carried out archaeological digs on two sites facing Active Pass. For part of the period they worked in co-operation with a student field party from Simon Fraser University at a site just east of Helen Point on Mayne Island. About one month was spent test-pitting a site in Georgeson Bay on Galiano Island.

Mr. D. N. Abbott reports that "both projects proved extremely rewarding in advancing our knowledge of the prehistory of the Gulf Islands area. The Museum's excavations done at Helen Point indicated a four-component site probably occupied from more than 3,000 years ago up to the present and yielded 14 features, five burials (all from the earliest component), and about 1,200 excavated artifacts plus surface collections. The Georgeson Bay site was two-component (corresponding to the earliest and latest prehistory periods at Helen Point), and our excavation there brought to light eight features and about 500 artifacts. Of particular importance was the recovery from these sites of a larger quantity of data relating to the still poorly understood early period comparable to the bottom levels of

Montague Harbour and probably to the Locarno Beach or 'Early Maritime' phase of the Fraser Delta Sequence."

Clearwater River Provincial Park, August 12th to 30th: Mr. Sendey and a small crew mapped and surveyed house pits at the request of the Parks Branch. Two occupation sites were located within park boundaries, one consisting of 37 house pits and another of 14 pits. Relatively few artifacts were recovered, but details of roof-beam structure were obtained from one house pit which was excavated. Surface collecting on a recently bulldozed site on Adams Lake also yielded 500 artifacts.

Meares Island, July: Mr. A. Hoover assisted an Archaeological Sites Advisory Board crew in the excavation of an early site of Fort Defiance.

Local reserves, January to March: Mr. P. Macnair attended a series of Coast Salish dances in a continuing study of rituals involving hundreds of local Indians.

Knight Inlet, April: Mr. Macnair documented the manufacture of eulachon grease, a condiment still widely used by natives of the Coast.

Queen Charlotte Islands, September: Mr. Macnair and Mr. P. R. Ward examined decaying totem poles at Skedans and Queen Charlotte City.

Friendly Cove, October: Mr. Macnair, Mr. Hoover, and Mr. Mullett removed and crated four poles purchased from Chiefs Ambrose McQuinna and Benedict Jack. The poles were shipped to Victoria by the Department of Transport, where they will be restored and copied. Two copies and two originals are to be returned for re-erection at Friendly Cove by the Federal Department of Indian Affairs and Northern Development.

Miscellaneous areas, various times: A number of brief field trips were made by Mr. Abbott and other staff members to investigate sites and to collect artifacts in the Victoria area, on Saltspring and Mayne Islands, near Bamfield, at Deep Bay, and in the Okanagan.

CONSERVATION DIVISION

Field activities were curtailed by preparation for the opening of the new building, but despite these commitments Mr. Ward was able to make three brief but extremely valuable trips.

In early June he visited the upper Skeena at the request of the Skeena Totem Pole Restoration Society to advise and assist in the planning of its summer programme. Poles at Kitwancool, Kitwanga, and Kitseguecla were studied and photographed and two hitherto unrecorded carvings were discovered.

In September Mr. Ward accompanied Mr. Macnair to Queen Charlotte City as observer at a trial of persons charged with the unauthorized removal of totem poles from Skedans. A valuable rapport was established with councillors of the Skidegate Band and the opportunity was taken to visit Skedans, where all surviving structures were studied and photographed.

In October Messrs. Ward, J. Smyly, and Hoover flew to Friendly Cove at the request of the Department of Indian Affairs and Northern Development to examine the Lord Willingdon pole and to study the four poles scheduled for removal at a later date.

DISPLAY PREPARATION

For most of the year the preparation of displays for the new building was marked by a series of deadlines, crises, and moves, yet in spite of these rough periods the technical staff managed to install a creditable array of exhibits in time for the official opening.

Various technical and other problems delayed the construction and installation of the dioramas planned for the opening, a situation which was not unexpected in view of the time schedule involved. Nevertheless these particular exhibits were left on view for some weeks so that visitors could see them in various stages of preparation. By the end of the year the Boreal Forest diorama featuring the moose was completed, the Dry Interior diorama showing bighorn sheep was awaiting installation of the glass front, the Gulf Islands Biotic Area diorama lacked only a few plant accessories, and the Northern Alplands diorama (Cariboo) was almost complete.

After the "big push" for the official opening, exhibit preparations slacked off while various staff members took a much-needed holiday. There followed a period during which the effectiveness of each individual display was given critical judgment, which resulted in a number of the cases being modified or temporarily removed for re-presentation. By the end of 1968 much of this reorganizing was complete.

A number of temporary displays have also been accommodated during the year, as follows:—

- "Historic Architecture of Canada," prepared and circulated by the National Gallery of Canada and augmented by material supplied by the Greater Victoria Historic Building Foundation and the British Columbia Provincial Archives, April 1st to May 31st (in rotunda of Legislative Building).
- "Viking Exhibit," prepared and circulated by the National Gallery of Canada, August 16th to September 30th.
- "Best of British Columbia," a travelling exhibit of colour photographs organized by the Department of Travel Industry, November 8th to December 15th.
- "Art Is Fun," a collection of paintings by Indian children of Canada, December 15th to January, 1969.

CURATORIAL ACTIVITIES

NATURAL HISTORY DIVISION

Routine inspection and care were given to the bird and mammal collections, and some minor additions were made of specimens taken during field work. Extra work was involved in removing and packing specimens taken from old exhibits prior to moving the cases from the old to the new building, and a considerable amount of time was spent in discussing and planning new exhibits. An interesting collection of fossils, acquired as a gift, was cleaned and catalogued by Mr. G. Green, and about 150 vials of spiders, millipedes, and centipedes collected by Mr. Thorn were added to the invertebrate study material.

In the botanical field more than 3,500 plant specimens have been mounted or remounted and added to the Provincial collection in the herbarium, for a grand total of 52,567. Dr. Szczawinski spent a major part of his time preparing a manuscript on the flora of Saanich Peninsula, which eventually will be published, and Dr. Brayshaw added several small collections taken in field work.

HUMAN HISTORY DIVISION

Considerable time and energy were spent by various staff members in supervising moves involving several lots of Indian and other historical artifacts. Major items, of course, were totem poles and canoes, which were shifted either into storage or into display areas. All moves were carefully planned and accomplished without damage to the objects.

In the archaeological field, Mr. Abbott and Mr. Sendey spent a week at the University of British Columbia as the first step in collating the site files maintained by the University and the Provincial Museum.

With the resignation of Miss C. M. Case as Curator of History early in the year, the task of supervising the moving and storing of the historical collections was delegated to other staff members, particularly Mr. Ward. A large amount of historical material remains to be sorted and catalogued, and a great deal of restoration work lies ahead.

CONSERVATION DIVISION

The preparation of objects for exhibition occupied much time prior to the opening of Heritage Court in August. During this period also, the Chief Conservator and the Restorer (John Smyly), in co-operation with the Curator and Assistant Curator of Ethnology, supervised the transfer of the historical collections and the Museum's entire collection of totem poles from downtown storage areas to the new exhibit hall.

The skilled and arduous task of erecting 41 totem poles in the new building was supervised by Mr. Smyly, as was the storing of the remaining 42 poles and 16 canoes in the collection.

Other activities have included the preparation of studies on Museum security and proposals for an approach to the display of human history material.

RESEARCH

Very limited time was available for research during 1968. Some biological collecting was carried on as already noted, and in the botanical field progress was made in the study of plant communities on Saanich Peninsula, with emphasis on its historical and geological aspects. In the same field a new project was started on the grounds of Government House in Victoria to study the composition of the Garry oak plant associations in that area.

The analysis of archaeological material gathered during the past several years was continued, and in the display field some experiments were carried on in an effort to improve plant preservation methods.

THUNDERBIRD PARK

A major part of the time of Mr. Henry Hunt and Mr. Tony Hunt has been devoted to preparing materials for use in the replica of a Kwakiutl house erected on the exhibit floor of the new Museum Building. This included adzing of boards, the carving of house posts, and assistance in the actual construction. In November, work was started on producing a totem pole for J. Alford Limited, Timber Importers, of London, England.

Mr. Tony Hunt was loaned to the 'Ksan project at Hazelton for a short time to instruct craftsmen in wood-carving; later he and Mr. and Mrs. Henry Hunt and other members of the family took part in ceremonies at the official dedication of the project at Hazelton.

EXTENSION AND EDUCATIONAL SERVICES

In March the Provincial Museum assisted in a programme of instruction arranged in co-operation with Vancouver City College for a small class of students taking course in museology. Mr. George Moore organized the curriculum and schedule; the Victoria Art Gallery and the Maritime Museum of British Columbia also participated.

In April Mr. Moore visited Hazelton to assist in the planning of the 'Ksan project, a joint venture by ARDA (*Agricultural and Rural Development Act*), the British Columbia Provincial Government, and the Hazelton people. En route home he called at Prince Rupert, Alert Bay, and Fort Rupert.

A large number of school classes and other groups, some from the United States, were given guided tours through the galleries of the old building before the move. Specially responsive was a group of 20 blind children, who were given demonstrations involving Indian artifacts and living animals.

On several occasions before the new building was officially opened, groups were given conducted tours through the structure, and after the opening this activity was repeated many times. A highlight in this category was an official visit by Governor-General Roland Michener, Mrs. Michener, and party on November 27th. The Honourable W. K. Kiernan and Dr. Bristol Foster acted as hosts and guides for the visitors on this occasion.

With the appointment of Mrs. Wilma Wood as Education Officer in October, it was possible to commence planning an educational programme within the new building. By the end of the year about 75 tours had been scheduled, a number of experimental lessons were given to school groups, and a programme of docent-training was set up to commence in January, 1969. Six sessions were also held with students of the University of Victoria Faculty of Education, designed to demonstrate the possible role of the museum in teaching.

Mr. Abbott continued to act on the advisory committee to the 'Ksan project, in which capacity he visited the Hazelton area on two occasions. He also aided in the foundation of the Vancouver Island Archæological Society, a local group of amateurs which meets in the Museum where members work with the Museum staff in cataloguing and sorting both their own and the Museum's collections.

Various staff members have presented lectures and demonstrations on numerous occasions throughout the year, including the annual meeting of the British Columbia Museums Association in Vernon in September.

PUBLICATIONS

The following publications have appeared in 1968:—

R. Wayne Campbell and David Stirling.

Notes on the Natural History of Cleland Island, British Columbia, with Emphasis on the Breeding Bird Fauna. Report of the Provincial Museum for 1968, pp. 25-43.

G. Clifford Carl.

Tree-frog Tadpoles in Winter. *Victoria Naturalist*, Vol. 24, No. 7, pp. 90-91.

Early Naturalists Commemorated in Museum Galleries. *Victoria Naturalist*, Vol. 24, No. 8, pp. 126-127. Also reprinted in *Net of Naturalists*, Victoria Natural History Society, pp. 33-34, 1968.

A Gray Whale in Inside Waters. *Murrelet*, Vol. 48 (1967), No. 3, p. 56.
Diving Rhythm of a Gray Whale. *Murrelet*, Vol. 49, No. 1, p. 10.

J. B. Foster and M. J. Coe.

The Biomass of Game Animals in Nairobi National Park, 1960-66.
Journal of Zoology, London, 155, pp. 413-425.

A. F. Szczawinski.

Botany Bay. Beautiful British Columbia Magazine, fall 1968, pp. 18-21.

In addition to the above the following publications were reprinted: "The Amphibians of British Columbia," Handbook No. 2; "The Reptiles of British Columbia," Handbook No. 3; and "The Impact of the White Man," Anthropology in British Columbia, No. 5.

The Museum also collaborated with the Department of Public Works and the Centennial Committee in the publication of a booklet commemorating the opening of the new building; copies were distributed to invited guests and to others as long as the limited supply lasted. For this occasion the Museum also published two leaflets—one on aims of the exhibit programme in general and one on Nootka whaling to help explain the wood sculpture in the entrance hall.

Also to mark this important event, a new journal was launched. The need has been felt for a long time for a publication to take care of papers of a more scientific or technical nature than those in current Museum series. Accordingly it was decided to commence a new series directed toward professionals in the various areas of natural and human history. It is to be called *Syesis*, a Sooke dialect word meaning "a story about an actual event."

Dr. Robert Scagel agreed to accept the post of editor of the proposed journal, and an editorial board was set up of persons representing the major institutions and (or) disciplines within the human-history and natural-history fields. Mr. Abbott was named an associate editor, and Dr. Foster, Mr. Macnair, and Dr. Szczawinski were asked to represent the Provincial Museum on the editorial board. Dr. Carl is an *ex officio* member.

Response was excellent; by December material for the first issue was in the hands of the Queen's Printer and the second number was being planned.

STAFF CHANGES

Several resignations and staff additions occurred during the year. Chief among the latter was the appointment of Dr. J. Bristol Foster as Assistant Director, a newly established position. A graduate of the University of Toronto, Dr. Foster took postgraduate training at the University of British Columbia, where he became interested in problems related to the fauna of the Queen Charlotte Islands. His research in that area resulted in the publication of "The Evolution of the Mammals of the Queen Charlotte Islands." Prior to returning to British Columbia to join the staff of the Museum, Dr. Foster spent five years in Nairobi, Kenya.

Other staff additions were as follows: Mr. Alan Hoover, a graduate of Simon Fraser University, as Assistant Curator of Anthropology; Mrs. Wilma Wood, as Education Officer; Mr. Garry Green, as stockman and apprentice; Miss Deanna Standal, as clerk-stenographer; Mrs. Kay Romanik, as receptionist.

Mr. William Crawford, Mr. John Hall, Mr. Knut Fladmark, and Mr. Fraser Smith were employed as field assistants during the summer months.

Early in the year, Miss Carolyn M. Case resigned from her position of Curator of History to marry fellow worker Mr. John Smyly. During her relatively short period of employment she was able to organize much of the historical collection, to supervise part of its transfer to new quarters, to initiate a system of registration and cataloguing, and to plan and help arrange a temporary display. After officially

leaving the Service, she continued to provide advice and assistance when requested pending appointment of a successor.

On May 31st Mr. Claude Briggs retired as Museum attendant, a position he had held since September, 1957. Previous to this date he had been a member of the Department of Public Works for a number of years.

In June Mr. George Moore left the Museum staff to accept a position as co-ordinator of a historical-sites programme in Hawaii. As Museum Adviser since the establishment of the post in October, 1966, he had worked with many of the smaller museums of the Province in solving their problems and did much to foster the museum movement in general.

In September Mr. Michael Miller, taxidermist since June, 1965, left to join the staff of the Manitoba Museum of Man in Winnipeg.

The Museum has been fortunate in receiving help from a number of volunteers. Included in this category are Mrs. Flo Scaplen, who has been acting as docent chairman; Mrs. Diane Crothall, Miss Marnie Davis, and Miss Noni James, who have been serving as guides; Mr. L. D. Gibson, assisting with sales counter and other chores; Miss Kathie Jamieson, of Vancouver, and Mr. Alan Carl, of Victoria, who assisted on archaeological digs; and Mr. Philip Nott, who has been of considerable service in display work. We also enjoyed the services of Mr. David White as technician in the display studio for some weeks through the courtesy of the Parks Branch, Department of Recreation and Conservation.

ATTENDANCE

Keeping a record of attendance this year was complicated by the move to new quarters in midsummer. Up to and including July the figures refer to the old building and are estimates based on sample counts made at irregular intervals. Subsequent figures refer to attendance in the new building, and for the first few months these are also estimates based on sample counts since it was not possible to make an accurate tally. The figures for November and December are much more accurate since they are the result of actual counts.

January	4,800	August	66,000
February	10,000	September	56,000
March	2,200	October	18,500
April	6,600	November	19,600
May	9,500	December	12,300
June	18,000		
July	31,600	Total	255,100

Of course, the above figures do not include those persons who attended the many meetings that were held in the auditorium, classroom, or other areas in the new building and of which we have no record.

Also to be taken into account is the new schedule of operation, which is as follows:—

October 1st to May 31st: Monday, closed; Tuesday through Saturday, 10 a.m. to 4.30 p.m.; Sunday, 1 to 4.30 p.m.

June 1st to September 30th: Monday through Saturday, 10 a.m. to 8.30 p.m.; Sunday, 1 to 4.30 p.m.

BUILDING CONSTRUCTION

The first unit in Heritage Court to be completed, the public services building, was officially handed over to the British Columbia Government by the general

contractor, Mr. George Farmer, on August 16th. In the meantime, work has progressed on the immediate surroundings, some landscaping was accomplished, and railings were installed on certain ramps and stairs.

The contract for completion of the Curatorial Tower and Archives, plus adjacent landscaping, was awarded to Burns & Dutton in April, and work commenced immediately on the final phase of the project. By December the major part of the concrete work had been poured, almost all the stone facing was in place, and plumbing and duct work were well along. The job is scheduled for completion in mid-1969.



"Big tree" design on entrance door to the new Museum is seen being revealed in photo by artist Leach Thomas and Herbert Johnson.



End of an era came with the closing of the old Museum building. At ceremony were Miss Margaret Cummins, of Museum staff; Dr. G. C. Cook, Museum Director, and the Honorable W. K. Keenan, Minister of Recreation and Conservation.



“ Big tree ” design on entrance door to the new Museum is seen being repeated in graffiti by artists Lionel Thomas and Herbert Siebner.



End of an era came with the closing of the old Museum Building. At ceremony were Miss Margaret Crummy, of Museum staff; Dr. G. C. Carl, Museum Director; and the Honourable W. K. Kiernan, Minister of Recreation and Conservation.

DONATIONS AND ACCESSIONS

BOTANICAL

Various institutions, game biologists, foresters, and private individuals have contributed a number of plant collections and individual plant specimens during 1968. Deserving of special mention were Mrs. G. Mendel, Kitimat; Dr. H. J. Scoggan, National Museum of Natural Sciences, Ottawa; Department of Agriculture, Ottawa; and the Botany Department, University of Victoria, Victoria. Space does not permit us to list each contributor individually, but we include all in a grateful vote of thanks.

Herbarium exchange was continued with the following institutions: National Museum of Natural Sciences, Ottawa; Plant Research Institute, Department of Agriculture, Ottawa; Laval University, Quebec; Smithsonian Institute, Washington, D.C.; University of British Columbia, Vancouver; University of Washington, Seattle, Wash.; University of Victoria, Victoria; Stockholm Museum, Stockholm, Sweden; University of Helsinki, Finland; University of Krakow, Poland; Queen's University, Kingston, Ontario; and a number of others. There is a rapidly growing list of institutions that are requesting exchange and study material, but unfortunately we are not able to oblige at the present time, due to a shortage of staff and space to handle the material.

With the addition of 3,506 sheets of specimens during 1968, the total now stands at 52,567. The project of remounting and uniformly labelling all herbarium specimens, started in 1965, was continued through 1968.

During the year a number of plant scientists from Canada and abroad visited and worked in our very cramped herbarium. In the near future, when we move to our new quarters, we hope to be able to accommodate those botanists and scientists who wish to do research on the flora of British Columbia.

ZOOLOGICAL

MAMMALS

By gift—

- F. E. Behnsen, Victoria—one wolfskin rug, one head of Vancouver Island record deer (mounted).
- L. J. Bettison, Victoria—two rats.
- J. W. Bunnnett, Victoria—shark teeth.
- P. Di Castri, Victoria—two teeth of domestic pig.
- R. W. Demarchi, Cranbrook—two male caribou skulls.
- D. Hurn, Penticton—two mountain goats.
- Mrs. E. C. Jackson, Victoria—one mounted polar bear skin.
- I. MacAskie and Mr. Levings, Biological Station, Nanaimo—one fur seal.
- N. B. Manson, Victoria—one bone.
- K. Mueller, Penticton—two caribou skulls and one mountain goat.
- Gordon Munroe, Victoria—one bear skeleton (partial).
- J. Schmaltz, Hagensborg—one long-tailed vole.
- B. Spencer, Victoria—one bat.
- John S. Vania, Alaska Department of Fish and Game, Anchorage—three sea otters (whole carcasses).

BIRDS

By gift—

- V. Ahier, Victoria—one white blue grouse.
 Bill Birch, Victoria—one hummingbird.
 E. Brooks, Victoria—one golden-crowned kinglet.
 Mrs. G. C. Boyd, Lake Cowichan—one chimney swifts' nest.
 Mr. Callaghan, Vocational School, Victoria—one thrush.
 Mrs. R. Cooper, Victoria—one nest of bushtit.
 J. Daniel, Victoria—one pileated warbler.
 Mrs. Eleanore Davidson, Victoria—one varied thrush.
 Mrs. Betty Gibson, Victoria—one sharp-shinned hawk.
 Miss Judith Harris, Victoria—one duck.
 Barry D. Hellicar, Saratoga Beach—one rufous hummingbird.
 M. Houston, Victoria—one hawk.
 A. Hutcheson, Victoria—one hummingbird.
 Robert Johnson, Metchosin—one Cooper hawk and one red-shafted flicker.
 Jack Lenfesty, Fish and Wildlife, Sooke—one yellow warbler, one western flycatcher, two pairs of rufous hummingbirds, one Swainson thrush, one fox sparrow, one glaucous-winged gull, one scoter.
 Murray Matheson, Parks Branch, Victoria—one McGillivray warbler.
 Miss Eileen Mathers, Sidney—one pair of rufous hummingbirds.
 Albert DeMezey, Victoria—one Wilson warbler.
 Hugh Monahan, Vancouver—four mallards, two pintails, two green-winged teal.
 Dick Moyer, Victoria—one western tanager.
 J. Newman, Saanichton—two cowbird eggs.
 John H. C. Palmer, Sooke—one rufous hummingbird.
 Arthur Peake, Haney—one varied thrush (albinistic).
 E. Price, Victoria—one female grosbeak.
 C. K. Ridley, Victoria—one female mallard.
 Mrs. J. G. Roberts, Victoria—two cases of bird eggs.
 Mrs. M. Sharpe, Victoria—two warblers.
 Mrs. Fred Sherman, Victoria—one siskin.
 E. W. Smitheringale, Comox—one Anna's hummingbird.
 Comm. H. W. S. Soulsby, Victoria—nest and eggs of chickadee.
 S.P.C.A., Victoria—one hawk.
 A. B. H. Stevens, Port Washington—one red-breasted nuthatch.

AMPHIBIANS AND REPTILES

By gift—

- Ross Dyson, Rob Edward, Scott Brown, Victoria—frogs.
 Larry DeBeck and L. Sousa, Victoria—two live newts (*Taricha*).
 John Holms, Brentwood Bay—collection of preserved amphibians from northern British Columbia, Yukon, and Alaska, plus collection of marine invertebrates.

FISH

By gift—

- Gordon Bain, Victoria—part of starry skate.
 P. Roos, Victoria—one lantern fish.
 Miss Jean McKeachie, Victoria—skull of one ratfish.

INVERTEBRATES

By gift—

- M. Borelly, Victoria—one black widow spider.
 Louis Brownell, Victoria—one brittle star.
 Mrs. R. Brunn, Victoria—one saw-toothed grain beetle.
 Mrs. Bernice Cantrill, Powell River—one collection of dried sponges, west side of Hardy Island.
 B. Chapman, Quadra Island—shells of fresh-water mussels.
 J. A. Coldwell, Victoria—one king crab.
 R. J. Coles, Victoria—spider.
 Dr. Derek Ellis, Department of Biology, Victoria—ten cartons of bottles containing preserved marine bottom fauna.
 Gordon, Ron, and Roy Hackett, Victoria—one shamrock orb weaver and one banded argiope spider.
 Miss M. Hill, Victoria—collection of fossils and minerals.
 Don Jordan, Victoria—one box crab.
 Mrs. R. Lang, Victoria—garden spider.
 Gary McLaren, Victoria—Mexican black witch moth.
 Mrs. A. McNeilly, Duncan—one mounted brittle star.
 M. Palamar, Victoria—one shamrock orb weaver.
 J. Paynter, Victoria—one black widow spider.
 Douglas Purdy, Victoria—one banded argiope.
 Mrs. A. E. Ross, Victoria—one cattle fly.
 B. J. Scott, Victoria—one black widow spider and cocoon.
 Mrs. Stephanie Steel, Victoria—black widow spiders.
 R. Talbot, Victoria—hydroid.
 R. Taylor, Victoria—two spiders.
 E. Tronbridge, Ocean Falls and Duncan—one adult Dobson fly.

PALÆONTOLOGY AND MINERALOGY

By gift—

- C. Atkins, Victoria—two concretions.
 Gary Green, Victoria—one fossil crab in nodule.
 E. H. Hall, Bralorne—three samples of gold-bearing ore.
 Denis McKeown, Victoria—one coral fossil.
 John E. Mitchell, Lillooet—serpentinous rock.
 H. C. Pearse, Carmanah Point Light Station—collection of fossils from local area.
 Linda Polden, Victoria—stone specimen (rhodonite).
 Victoria Lapidary and Mineral Society, Victoria—one map of Canada made from minerals of each province.
 Clifford Wilkinson, Saanichton—one rock and mineral collection.

HISTORICAL

By gift—

- Mrs. G. L. Alston-Stewart, Victoria—one skin tie-rack.
 Attorney-General's Department, Victoria—one .45 Smith & Wesson Schofield military model revolver, type 1, Serial No. 2570 (1873); 3-inch knife-pistol; and folding blade and chamber for .22 cartridge.
 William Austen, Department of Public Works, Victoria—one bronze plaque.
 F. E. Behnsen, Victoria—four gun-racks from sealing vessels.

- Mrs. Benning, Victoria—four christening-gowns.
- R. P. Brown, Victoria—ladies' bicycle (1928); one Kodak camera, plus details for each item.
- H. K. Burnett, Victoria—six cookie cutters, one child's sleigh and high chair, one baby buggy, and one boot-jack (1886).
- J. H. Carter, Victoria—one ironing-board, set of five hair-curling irons.
- David L. Carl, Victoria—one Welsh Allyn Retinoscope.
- Dr. H. Carter, Victoria—brass and porcelain coat-hooks on board from 1148 Johnson St.
- Mrs. Coleman, Victoria—42 books and periodicals on weaving and spinning, five periodicals (CIBA, Quarterly Journal of Spinners).
- Mrs. J. Cragg, Victoria—wedding dress (1879), belonged to Mrs. George Kennedy.
- William R. Crystal, Victoria—two beer bottles (1893).
- Miss E. Dalloway, Victoria—one coin bag, one dice set (1868).
- E. C. Dawe, Victoria—photographs of old Victoria scenes.
- Miss E. Dee, Victoria—one patchwork quilt (1898).
- Mr. and Mrs. J. Doran, Victoria—parasol, wedding shawl, choker, two brooches, handbag, sampler, plus information on each.
- Mrs. H. English, Victoria—one sewing-machine (1889), American manufacture.
- J. Stan Ford, Lake Cowichan—one carved burl and two carved walking-sticks.
- R. Green, Victoria—Potato seeder (tinsmith made).
- J. R. Gresham, Victoria—one old stove (1908), one sewing-machine, and First World War uniform (Sam Browne).
- Mrs. P. Grimmer, Port Washington, Pender Island—magic-lantern slides.
- Mrs. Harding, Victoria—washing-machine (wooden tub construction).
- Mrs. Hardy, Victoria—collection of lithographs (History of Pharmacy).
- E. G. Hart, Victoria—book shelf for desk, length of rail from Victoria electric tram-line, map of Victoria (1895–1900).
- Mrs. J. Heathfield, Victoria—one mug, commemorative of Queen Victoria's reign (1837–1897).
- Victoria City Hall, per Mr. Ainslie Helmcken, Victoria—one old desk.
- Mrs. J. Hepburn, Cowichan Bay—one seal of "Pacific-Alberta Coal Bunkerage Company Ltd."
- Mrs. Holliston, Victoria—11 marbles, various sizes and ages.
- Mrs. B. Howland, Victoria—one slide projector with attachments, (about 1919).
- R. Jones, Victoria—20 meat tokens (World War II).
- F. King, Victoria—brass nutcracker, from Thomas F. Francis collection (*circa* 1840).
- Mrs. Isabel Lemon, Victoria—wool work made about 1890.
- D. Lewis, Victoria—door and side panels from 1148 Johnson Street.
- Prof. C. Lowe, Victoria—six copies of "Zoolog" and "Zoo Guide," London.
- Mrs. D. Moor, Victoria—one mask carved from cocoonut, from Mexico (about 1950); also one bag and shoulder strap made by the natives of Calabar, West Africa (about 1920).
- T. Muirhead, Victoria—one pair of Chinese slippers, three pieces of bead-work, one Mohawk prayer rosary, and one book of Indian costumes.
- W. S. Nevison, Victoria—one mother-of-pearl fan, one thimble and holder, one dance programme.

- W. Noon, Victoria—cutglass mug, belonged to Mr. Shakespeare (M.P. for Victoria in the 1900's).
- Pacific Cable Board, Vancouver—section of the Bamfield to Fanning Island link of Pacific Telegraph Cable (1902).
- Mrs. George Penman, Victoria—one black cape trimmed with bugle beads.
- J. Petne, Victoria—two staircase newel posts from original City Hall of Victoria.
- Mrs. R. Phillips, Victoria—one Eastman Kodak folding camera, MO1A (patented 1890).
- Mrs. O. Prentice, Victoria—one box old carpenter's tools, one draughting-set (incomplete), one pocket watch (1880), and one pocket knife.
- P. Pollen, Victoria—one copy of "Horizon" and one newspaper article on herons.
- R. Rainsford, Victoria—one Boss washing-machine (pre-1900 vintage).
- H. Schop, Victoria—nine hats and one hat box.
- Miss Sheffield, Victoria—
- (a) four pairs white flannel cricket trousers;
 - (b) five men's jackets with matching waistcoats;
 - (c) two pairs of men's trousers (1910);
 - (d) man's white shirt;
 - (e) man's grey flannel undershirt (pre-1914);
 - (f) six white cotton dress ties;
 - (g) one corded silk dress bow tie;
 - (h) three pairs men's white kid gloves;
 - (i) two medical books;
 - (j) Baird-Tatlock catalogue;
 - (k) George Adams engineering catalogue;
 - (l) Fowlers Electrical Engineering (1905);
 - (m) booklet, C. Baker Scientific Instruments;
 - (n) booklet, catalogue of microscopes;
 - (o) hygrometer, thermometer, magnifying glass, and nine weights;
 - (p) apothecary's scales and weights in box;
 - (q) set of weights, with tweezers, in box;
 - (r) pressure gauge in leather sheath;
 - (s) four protractors and square;
 - (t) three protractors in fitted case;
 - (u) five draughting instruments and rules in box;
 - (v) six wooden toys.
- Mrs. Jack Short, West Vancouver—silken handkerchief and two photos (about 1888).
- Mrs. E. Smith, Victoria—one Queen Victoria chocolate box, book, and 1889 badge.
- Mrs. Harold Smith, Victoria—blacksmith's bellows and various tools used in Victoria 100 years ago.
- Mrs. P. Tyrrell, Victoria—gentleman's linen smock (early 1800's), English origin.
- Mrs. H. Underhill, Vancouver—photo enlargement of "Cathedral Grove" (about 1911).
- Mrs. I. Wilcox, Victoria—one old English-type sewing-machine, "Princess of Wales."
- Robert Wilson, Victoria—one old-style lamp complete with battery.

By purchase—

Michael Cotton Antiques, Victoria—Barnett trade musket (1775), Tower
“Brown Bess” infantry musket (*circa* 1800–1830).

COLLECTIONS

By gift—

British Columbia Centennial Committee, per L. J. Wallace, Victoria—Cen-
tennial gavel and signed book, ceremonial trowel used by Queen
Mother, and picture of Queen Mother.

Walter M. Draycot, North Vancouver—one collection of Canadian stamps
with historical notes.

Mrs. D. J. Lawson, Victoria—collection of clothing (1885, 1890, and 1906).

Miss D. Geneva Lent, Victoria—collection of 40 paintings of Indian designs
and carved masks.

Jack Price, Victoria—one collection of photographic gear.

By purchase—

John Holms, Brentwood Bay—collection of horse-drawn vehicles and his-
toric artifacts.

MISCELLANEOUS

By gift—

Canadian Pacific Hotels, E. C. Fitt, Montreal—one 100-horsepower steam
engine and generator formerly used in the powerhouse of the Empress
Hotel, Victoria.

Miss E. E. Harrold, Roberts Creek—three volumes of “Birds of Massa-
chusetts.”

R. Kerkham, Vancouver—set of enlarged British Columbia photographs of
historical interest.

R.C.M.P., Victoria—one .22-calibre pistol/knife.

Mrs. D. Stewart, Victoria—one jade plant, 5 feet tall, from the residents of
Faircliff Rest Home.

ARCHÆOLOGICAL

By gift—

Joe Awmack, Victoria—fragment of petroglyph.

Walter Battye, Victoria—chalcedony point.

Charles E. Bloomquist, Wellington—perforated stone sinker.

Leonard Boyko, Skidegate Landing—human skull fragment.

Allan C. Brooks, South Pender Island—collection of artifacts.

Alan Carl, Victoria—collection of artifacts.

Wayne Davis, Ladner—carved antler human figure.

J. C. de Wilde, Victoria—antler mat creaser.

N. Grove, Victoria—human skull fragments.

Jim Hall, Victoria—human skull fragments.

B. E. Harris, Saltspring Island—human skeleton.

Mrs. Nancy Hayden, Victoria—collection of artifacts.

Ron Hodacsek, Victoria—human skull fragments.

F. K. Hooper, Victoria—ground slate point.

Mike Ingram, Sidney—two chipped points.

N. Karholm, Lytton—collection of artifacts.

Skip Kennedy, Pedder Bay—U.S. Navy button.

- R. S. Kronish, Haney—human skull.
 L. H. Lonsdale, Victoria—collection of artifacts.
 John E. Mitchell, Lillooet—nephrite boulder.
 Dr. H. M. Nichols, Boho Island—partial human skeleton.
 Roger Nygaard, Victoria—collection of artifacts.
 Lieut.-Governor, Major-General George Parkes, Victoria—granite bowl,
 stone maul, and green-stone blade.
 Reg. C. Sivers, Comox—chipped point.
 Alice Smith, Karlukwees—nose ring.
 Roy Taylor, Gabriola Island—human skull fragments.
 Evert van Adrichem, Pedder Bay—collection of artifacts.
 Reg. Whittaker, Williams Lake—collection of basalt detritus.
 A. Willdig, Victoria—harpoon valve.

By the staff—

Collections from the Victoria, Lower Fraser Valley, Gulf Island, and Clear-water River areas.

ETHNOLOGICAL

By gift—

- Mrs. F. U. Benz, Pasco, Washington—two pairs of beaver moccasins, one beaver buckskin pouch.
 Mrs. E. Don, Victoria—one Nootka and two Tlingit baskets.
 Mrs. H. Drayton, Victoria—three pieces of Athapaskan beadwork.
 Mrs. S. E. Ford, Victoria—Nootka basket.
 Alex Glover, Nelson—two examples of Salish basketry.
 Mrs. J. Godman, Victoria—Haida silver bracelet carved by Charles Edensaw.
 Mrs. R. Helme, Lister—Salish coiled basketry creel, Kootenay beaded belt.
 Ian McAskie, Nanaimo—coil of cherry bark, Nootka.
 Mrs. T. Morse, Pinole, California—five Nootka baskets, one Salish basket, two model totem poles.
 Mrs. C. B. Peterson, Victoria—large collection of Salish basketry (58 items).
 Miss I. F. Sewell, Victoria—collection of 16 Nootka baskets.
 Mrs. R. F. G. Smithwick, Victoria—Salish basketry tray and trunk.
 Mrs. H. Webber, Victoria—collection of Salish basketry.

Staff purchases—

- Haida—two silver bracelets.
 Kwakiutl—set of implements used in making eulachon grease.
 Nootka—model canoe, two totem poles.
 Tsimshian—dance apron.
 Miscellaneous baskets.
 Thunderbird Park—model totem pole carved by Henry Hunt.

THE SECRET VISIT OF R.M.S. *QUEEN ELIZABETH* TO ESQUIMALT IN 1942—THE LAST IN A SERIES OF NOTABLE EVENTS IN THE AREA

BY DANIEL T. GALLACHER,
CURATOR OF HISTORY, BRITISH COLUMBIA PROVINCIAL MUSEUM

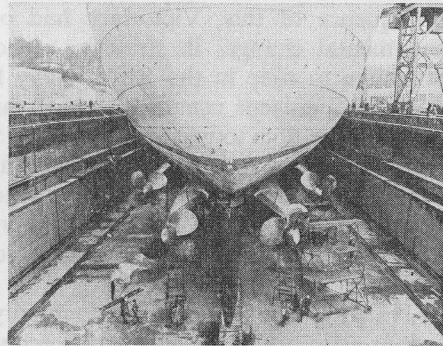
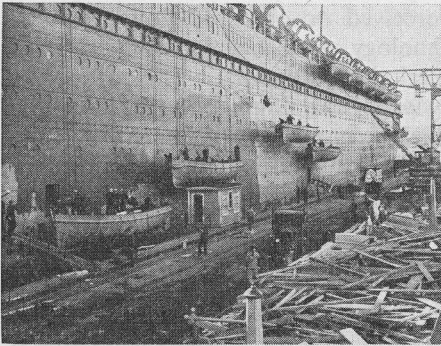
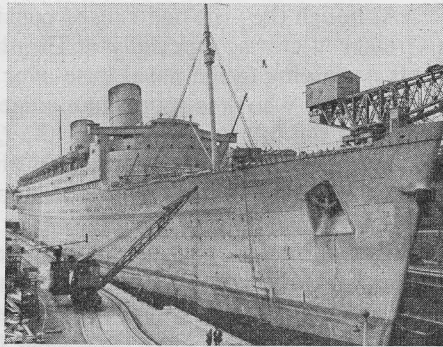
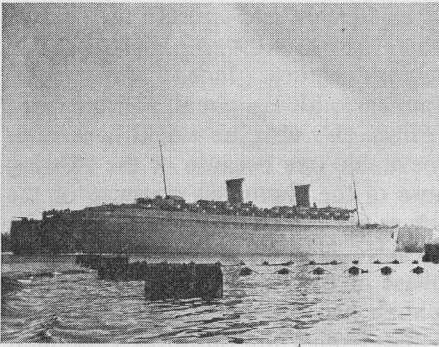
For people in Greater Victoria, the arrival of R.M.S. *Queen Elizabeth* at Esquimalt on February 25, 1942, hardly could have been a secret, but they were to behave as if it was. Thousands of Victorians had seen the grey silhouette of the massive passenger liner cruising ghost-like in Juan de Fuca Strait and come to anchor in the broad expanse of Royal Roads. Later, hundreds watched as the 1,031-foot, 83,673-ton pride of the Cunard Line attempted to enter the huge Federal graving dock at Skinner's Cove in the north-east corner of the harbour's entrance. The docking manoeuvre had been close to impossible as the drydock, vast, as it was, measured only 1,150 feet in length, while its clear width at the entrance was just 124 feet, thereby making an extremely narrow clearance for the huge ship.¹ Indeed, so difficult was the passage, that a second attempt was needed, and that came perilously close to being aborted. It appeared as if the immediate problems were over, however, as she finally came to rest, allowing thousands of sailors, soldiers, and workmen to proceed on board and begin a 12-day task of refitting her into a troopship capable of carrying a full army division of 15,000 men. Yet for Victorians the anxiety of having so attractive a target, literally on their doorstep, was only beginning.

¹ This drydock, the second built at Esquimalt, had been a gargantuan construction project, not only for the city, but for the Dominion as well. The *Victoria Daily Colonist* on July 6, 1919, claimed that the drydock was first promised to Victoria by the Federal Government in 1912. It was not until the post-war recession of 1919, however, that work was actually begun, spurred no doubt by Jellicoe's recommendations. The project was of great benefit to local industries (such as Yarrow's) and in time reached as far east as Montreal for materials. On January 9, 1926, the *Victoria Daily Times* said, "Great Dock Is Victoria's New Year Gift," and underscored that happy observation with "Esquimalt Graving Basin Is Colossus of Modern Construction." To be fair, it certainly was an outstanding achievement, for, according to J. P. Forde, the District Engineer of the Federal Department of Public Works in 1925: "A comparison of the size of this dock with the other existing drydocks, of 1,000 feet or over in length, is:—

Name	Location	Length	Width at Sill	Depth on Sill, H.W.O.S.T.
Commonwealth	Boston, Mass.	1,171	120	46
Lauzon	Quebec	1,150	120	40
St. John	St. John, N.B.	1,150	110	42
Congella	Durban, S.A.	1,150	110	41
Peter	Cronstadt	1,058	63	19
Gladstone	Liverpool, Eng.	1,050	120	43
Bassin deMaree	Havres, France	1,049	113	26
Navy Yard	Philadelphia, Pa.	1,022	115	43
Pearl Harbour	Honolulu, H.T.	1,008	114	35
No. 4	Norfolk, Va.	1,001	116	44
Balboa	Panama, C.Z.	1,000	110	48
Hunter's Point	San Francisco	1,000	110	40
Hughes	Bombay, India	1,000	100	36

"There is small probability of the whole length of the dock often being required for one vessel, and it has been so constructed as to allow of its being divided into two separate chambers. This has been done by the provision of two intermediate stops at distances of 400 feet and 750 feet from the main sill. Such a plan allows of great flexibility in arranging for the docking of vessels, since although only one intermediate caisson is provided, it can be used at either of the intermediate stops. The dock can, therefore, be used as one basin 1,150 feet long, or as two separate basins, the outer one being 400 feet long and the inner one 750 feet long, or vice versa, as may be required by the order in which vessels arrive for docking."

(J. P. Forde, "The New Esquimalt Drydock," *The Engineering Journal*, Montreal, December, 1925, 8:12, p. 478.)



Top left: R.M.S. *Queen Elizabeth* approaching Esquimalt from Royal Roads, February, 1942.

Top right: *Queen Elizabeth* berthed in the second Esquimalt Drydock.

Bottom left: "4,000 brushes to paint a *Queen* grey."

Bottom right: *Queen Elizabeth* during her refit at Esquimalt.

A world-wide interest in the *Queen Elizabeth* had been stirred months before during the spring of 1940, when, to avoid exposing her to German bombers during the Battle of Britain, the Admiralty had dispatched the enormous but unfinished ship to North America. Five months after this hurried departure, the *Queen Elizabeth* sailed from the east coast of the United States, having been brought up to operational standards during an extensive completion project. Later it was learned that she had appeared in Singapore for conversion into a troopship, and ultimately carried Australian and New Zealand troops to Suez. Immediately after the Japanese attack on Pearl Harbour in late 1941, it was reported that the *Queen Elizabeth* had transported 8,000 American troops to Australia from San Francisco; but beyond having this limited intelligence, very few people anywhere could have known with certainty the whereabouts of this invaluable Allied vessel. Thus Victorians, while initially dumbfounded at the sudden appearance of the *Queen Elizabeth* in British Columbia waters, were quick to realize the importance of the event, and understood, too, the potential threat that the leviathan's presence afforded their island city. Hence, they did not hesitate to co-operate with the local naval authorities, who urged the strictest possible security. To Victoria's credit, neither a newspaper article nor a radio broadcast made mention of the frenzied activity at Esquimalt, both during and after the *Queen Elizabeth's* clandestine stopover.²

² A. Wills, Victoria, interview, August 12, 1969.

Although the visit had caused considerable excitement and concern for citizens in Greater Victoria, especially at Esquimalt, there had been other equally notable events pertaining to the naval base over the previous century. Indeed, if an intelligent observer who was more than somewhat familiar with Esquimalt's history had considered the full implications of the *Queen Elizabeth's* visit, he would have realized that not only was her arrival an almost inevitable one because of the existing drydock facilities, but a logical one, too, because of the continued presence of the Royal Navy in the North Pacific from as far back as the early 19th century. Had he investigated further, it is likely that he would have discovered that the *Queen's* visit heralded the last days of a fifth distinct phase of the Royal Navy's experience in the area—phases in which the base at Esquimalt had played an important part. Furthermore, it would have been clear to him that, from 1862 onwards, Esquimalt had become the focal point for the Royal Navy's activities in the area and, as a consequence of this, Victorians had often perceived or observed first hand the fundamental changes in strategy, tactics, technology, and logistics that occurred from time to time in the Royal Navy for a period of 80 years. The manner in which local citizens usually obtained this knowledge was simple enough. Anyone who took the time to watch the ships of the Royal Navy arriving at Esquimalt could easily have noted the periodic changes in naval architecture, armaments, and camouflage. Coupled with some earnest reading on current events and naval strategy, this information would have given any interested Victorian, at any time between 1865 and 1942, a reasonably clear picture of the duties and state of the Royal Navy in the North Pacific.

Finally, our observer undoubtedly would have concluded that beyond the obvious civic pride, the substantial economic benefits, and the considerable cultural growth that fell to the city from hosting the Royal Navy's Pacific Squadron up to 1905, Victorians had had to learn to live with the recurring fear of becoming hapless victims of attacks by foreign powers at war with Britain over some vague issue, whether Canada was a participant in it or not. Thus it would have been relatively easy for him to realize the impact that certain events, usually in the form of a distant imperial war or by means of an important naval visitor such as the *Queen Elizabeth*, had upon the minds of Victorians.

For example, when James Douglas of the Hudson's Bay Company established Fort Victoria in 1843, the officers of the Pacific Squadron had little interest in Esquimalt as a harbour. Still, it was decided that an annual voyage to the infant colony would be made in order to give a semblance of protection to the British subjects there. As it soon became obvious that British sailors welcomed the opportunity to relax with settlers from their own country in a climate that was much more pleasant than that of either Callao's or Valparaiso's to the south, commanders of the Pacific Squadron soon decided to investigate the potential of the Esquimalt area.³ Their motives were not altogether drawn from a desire to acquire a rest-haven for their ships' crews, however, Britain's position in the eastern Pacific up to 1840 was another factor, since it had been precarious on more than one occasion. Other powers were not willing to cede the Pacific to England, and since the Royal Navy's supply-lines were at their farthest limits in this region, the Admiralty's policy was, as one historian points out, "to avoid wasp's nests";⁴ or, in more formal terms, a policy "fundamentally reserved and

³ F. V. Longstaff, *Esquimalt Naval Base*, Victoria, British Columbia, 1941, *passim*.

⁴ Barry M. Gough, *The Royal Navy on the Northwest Coast of North America, 1810-1910*, Ph.D. dissertation, University of London, 1969, p. 105. Held at P.A.B.C. Gough's summary is noteworthy: "The Royal Navy's presence on the . . . coast from 1810 to 1910 provided protection for expanding British commercial and political interests. British warships aided the enterprises of British fur-traders, merchants, and settlers, assisted colonial governors and upheld the civil power. They also conducted surveys, reduced the danger of attack by hostile Indians, checked American peaceful penetration, and 'Manifest Destiny,' and guarded against Russian and Fenian raids." (p. 3.)

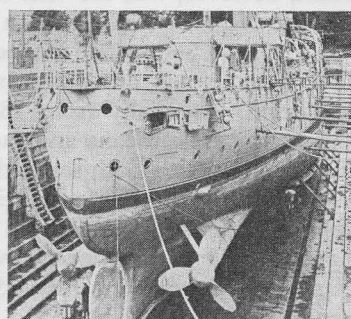
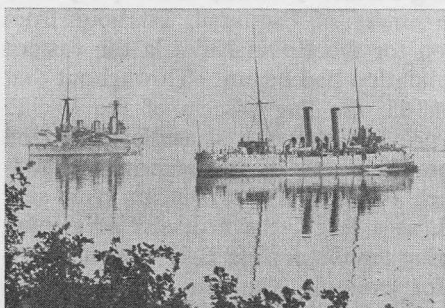
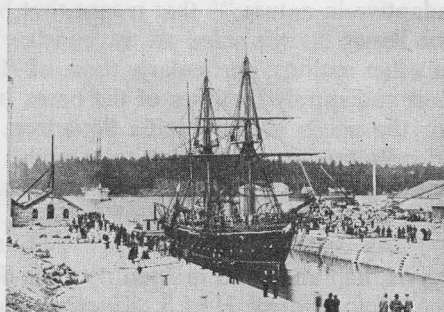
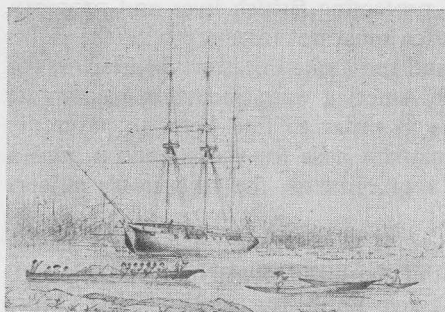
adaptive in nature,"⁵ that meant that beyond protecting British lives and property, the Royal Navy's ships off the coasts of America must not interfere with the rights of other nations, particularly those of Russia and the United States. Moreover, the port and supply facilities of the bases in South America were becoming inadequate for the needs of the Pacific Squadron. Thus in order to find both an assuredly friendly territory on which to establish a permanent base for the squadron, and a better strategic location for their operational requirements, the squadron's officers paid increasing attention to Esquimalt.

As early as mid-August, 1844, therefore, H.M.S. *Modeste*, a small survey vessel, had anchored in Juan de Fuca Strait; but the first Royal Navy warship into the Victoria area, H.M.S. *America*, did not arrive until August 28, 1845. More important, however, was the visit of H.M. Brig *Pandora*, which, in company with H.M. Sloop *Herald*, conducted an extensive survey of Esquimalt Harbour from 1846 to 1847. The period of experimentation for the Royal Navy in the eastern Pacific thus had ended, and a process of consolidation had begun. Throughout that second period, essentially from 1844 until 1865, the flag officers of the Pacific Squadron sought the means and facilities to provide extensive strategic protection for British interests on both sea and shore from the coasts of the Americas to mid-ocean. In addition, technological changes, such as a conversion to steam from sail, were on the horizon for the Royal Navy and, as a result, the necessity of gaining ready access to large coal deposits was becoming mandatory for British naval commanders everywhere. On July 25, 1848, for example, Captain George W. C. Courtenay, in command of H.M.S. *Constance*, arrived at Esquimalt under orders from his superior, Rear-Admiral Hornby in Valparaiso, to assess coalfields and to report on the state of British interests in the Vancouver Island-Puget Sound area. Similar tasks were set for each of the subsequent vessels that sailed north. Yet Esquimalt's true value as a strategic location became apparent during the Crimean War when, for example, H.M.S. *President*, accompanied by a combined fleet of British and French ships, entered the Esquimalt area in search of medical assistance for crewmen wounded at the time of the fleet's raids upon Russian shore emplacements on the Kamchatka Peninsula. Having found the meagre resources of the Hudson's Bay Company's nearby fort entirely inadequate for their needs, the visiting officers complained bitterly to the Chief Factor at Victoria, James Douglas, who, in turn, soon had a small hospital built at Esquimalt that was equipped and ready for the fleet returning from similar raids the following year, and for which he successfully persuaded a reluctant Admiralty in London to bear the cost.⁶

Still, it was not until 1857 that a detailed hydrographic survey was begun by the Royal Navy along the coast of what is now British Columbia. Operating out of Esquimalt from 1857 to 1861, two survey vessels, H.M.S. *Plumper*, commanded by Captain George H. Richards, and later, from 1861 to 1863, H.M.S. *Hecate*, together were able to provide 36 principal charts of the north-west coast. During this six-year period, however, events in the island colony and on the mainland transformed the British possessions into an important outpost of the Empire. In 1858, the Crown Colony of British Columbia was created in response to an almost overwhelming pressure of Americans seeking gold on the banks of the Fraser River, a pressure which could not possibly be handled by the limited authority and resources of the Hudson's Bay Company alone. Furthermore, Victoria was incorporated as a city in 1862, and as a result of its permanent population stabilizing at approximately 6,000 residents, the Admiralty concluded that the harbour at Esquimalt would be the most logical place to move the Pacific Squadron. In short, Britain had a suitable

⁵ Loc. cit.

⁶ *Miscellaneous Papers Relating to Vancouver Island: 1848-1863*, London, Queen's Printer, July 24, 1863 passim. Held at P.A.B.C.



Top left: H.M.S. *Constance* in Esquimalt Harbour, 1848.

Top right: H.M.S. *Cormorant*, first ship into the first Esquimalt Drydock, 1887.

Bottom left: H.M.C.S. *Rainbow* in company with H.M.S. *New Zealand* in Esquimalt Harbour, 1913.

Bottom right: H.M.C.S. *Rainbow* during a refit at Esquimalt, 1916.

harbour, a detailed intelligence of the local waters, and a substantial British colony nearby to provide logistic and other support for its ships in the eastern Pacific. By 1865, therefore, both the headquarters and ships of the squadron were finally stationed at Esquimalt, an event which heralded the end of the second phase of the Royal Navy's activities in the region, and the beginning of the third.

Between 1866 and 1905, the Esquimalt naval base was developed by Britain (and later, with the co-operation and assistance of Canada after British Columbia joined Confederation in 1871) for two basic purposes: First, Esquimalt, as an increasingly important strategic link in the chain of Empire defence, required an adequate system of port fortifications of its own⁷. Second, because the Empire *per se*

⁷ The following description tells of the fortifications jointly constructed by Britain and Canada from 1893 to 1896:—

“The most powerful battery was to be that of Signal Hill, whose two 9.2-inch BL guns would reach some 10 miles to counterbombard any ships attempting to shell the harbour installations from long range. The Fort Rodd Hill and Macaulay Point 6-inch BL gun batteries were for medium-range of up to 10,000 yards and the three other batteries—Belmont, Duntze Head, and Black Rock—were each equipped with two 12-pounder QF guns with fighting ranges of 4,000 yards and maximum ranges of 8,000 yards. Searchlights also were mounted at the quick-firing batteries so covering fire could be brought to bear, by night as well as by day, over the shore-controlled submarine minefield that would be laid to protect the approaches to Esquimalt Harbour in time of war.

“The Fort Rodd Hill of 1895, then, consisted of two adjacent but separate coast artillery installations,

“ (a) the 6-inch BL disappearing guns of Lower and Upper Batteries;

“ (b) the 12-pounder QF guns of Belmont Battery.

“In the tactical and operational sense, Lower and Upper Batteries were more closely associated with the three 6-inch BL disappearing guns of Macaulay Battery than with the guns of Belmont Battery, while Belmont Battery was more closely associated with her sister quick-firing batteries at Duntze Head and Black Rock.”

(From a pamphlet on Fort Rodd Hill and Fisgard Lighthouse published by the National and Historic Parks Branch, Department of Indian Affairs and Northern Development. Ottawa, Canada, 1969.)

was growing at a phenomenal rate during this period (Canada itself being a prime example), the Admiralty in London was faced with the task of providing protection for colonies and nations extending over millions of square miles. And although Esquimalt was certainly closer to Asia via great circle routes than were either Chile or Peru, the distance between Vancouver Island and Hong Kong, for example, was far too great for ships based in North America to conduct sustained operations in Asian waters. The Admiralty's ultimate solution was essentially threefold, and as successful military operations often are, quite simple: For the West Coast of the Americas, there was the Pacific Squadron; while for ocean areas such as those off Australia and China, there were similar configurations. The second element of the Royal Navy's protective umbrella was a "flying squadron," which in May, 1869, arrived in Esquimalt during a two-year world cruise that had been designed primarily to "display the British flag in a detached squadron in distant parts of the world."⁸ Finally, in 1903, Great Britain entered into an alliance with Japan in order to meet the growing challenge to her own naval hegemony in the Pacific presented by other imperialist powers such as Germany, Russia, and the United States. By doing so, Britain was able eventually to concentrate her naval power on the Atlantic and Indian Oceans as well as in the Mediterranean and North Seas in a determined effort to counter the growing menace of the German Imperial Navy.

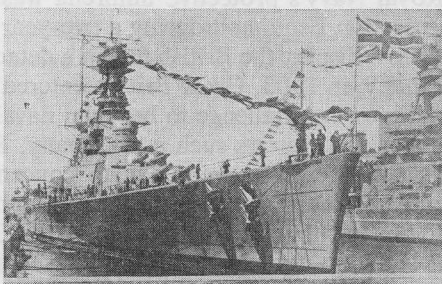
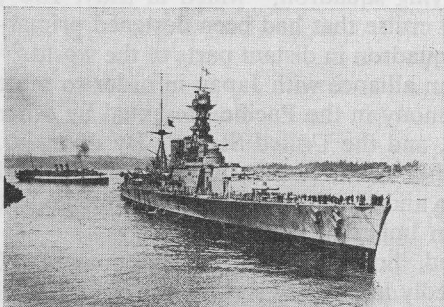
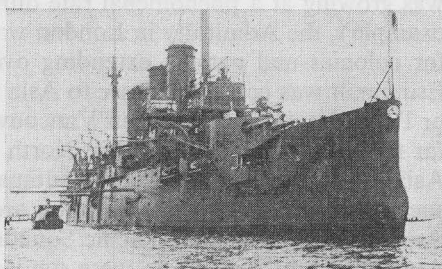
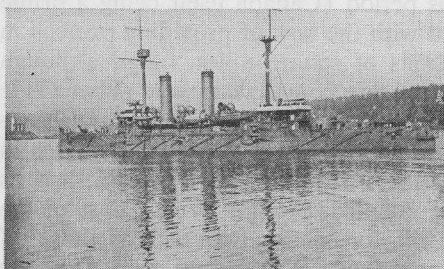
In so far as Esquimalt was concerned, however, this "abandonment" of Canada's West Coast by the Admiralty allegedly left a very serious gap in the local defences. In truth, Royal Navy ships remained on the station throughout a five-year interregnum between 1905 (when Esquimalt was transferred to Canada's control) and 1910, when the Royal Canadian Navy's new training-vessel, H.M.C.S. *Rainbow*, arrived for duties on the West Coast. In addition, ships of the Royal Navy continued to use the Esquimalt facilities to a considerable extent after 1910.⁹ When the Great War began, however, Victorians were mortified to discover that it was ships with names like *Azuma*, *Asama*, and *Idzumo*, together with the *Rainbow*, that were to provide seaborne defence for the West Coast of Canada. Indeed, until 1917, when the United States entered the war on the Allied side, Japanese warships regularly patrolled off the West Coast of British Columbia at a time when orientals were not welcome in the Province.¹⁰

Shortly after the war's close, Admiral of the Fleet Viscount Jellicoe of Scapa arrived at Esquimalt to inspect the facilities there for the purposes of recommending to the Governments of Canada and Britain what changes would be required in the event of another world war. Jellicoe's visit was part of a world tour he had undertaken with the basic aim of assisting in improving the Empire's defences generally. But Canadians were particularly interested in his recommendations, since, among other items, Jellicoe urged that a massive drydock be built at Skinner's Cove across the harbour from the naval yard. Later, the successfully completed drydock, coupled with the earlier-constructed deep-sea wharves at Ogden Point at Victoria, once again allowed the Royal Navy to place new improved port facilities and defence establishments of Southern Vancouver Island into their strategic plans of imperial defence. In other words, Britain's naval policy for the North Pacific once again

⁸ *Victoria Daily Times*, June 21, 1924, page 15.

⁹ See the British Parliament, Order in Council: Statutory Rules and Orders, 1911, No. 445, entitled, "Naval Establishments (British Possessions) The Canadian Naval Establishments (Esquimalt Dockyard) Order, 1911." Dated May 4, 1911. This order spells out the responsibilities that Canada was to undertake with regard to ships of the Royal Navy (and other navies in the Empire) after the transfer of the dockyard was completed. Included therein: Canada was to maintain all facilities, including the harbour's water depth; provide coal and other stores for His Majesty's ships; grant free of charge all facilities to visiting ships, except labour and material; and inform the Admiralty of all significant changes other than those considered to be strictly of a Canadian military or naval nature.

¹⁰ Gilbert Norman Tucker. *The Naval Service of Canada*, Ottawa, King's Printer, 1952, vol. 1, pp. 271-282.



Top left: Japanese cruiser *Asama* in Esquimalt Harbour, August, 1914.

Top right: Japanese cruiser *Azuma* in Esquimalt Harbour, August, 1914.

Bottom left: H.M.S. *Hood* arriving at Victoria, June, 1924.

Bottom right: H.M.S. *Hood* and H.M.S. *Repulse* alongside Ogden Point Docks, Victoria, June, 1924.

featured Esquimalt Harbour in a dominant role. Furthermore, history appeared to repeat itself, inasmuch as a second "flying squadron" was created to show the flag, and it, too, arrived in Victoria, this time in 1924.

H.M.S. *Hood*, the flagship of Vice-Admiral Sir Fredrick Field, arrived at Victoria on June 21, accompanied by H.M.S. *Repulse*, H.M.A.S. *Adelaide*, and four light cruisers, *Danae*, *Dauntless*, *Delhi*, and *Dragon*. The headlines of the *Victoria Daily Times* read: "Monster Battleship Has Every Feature Known to Modern Warfare"; while in greater detail, "[the *Hood*] embodies all lessons learned at the Battle of Jutland," and "The *Hood's* guns can, therefore, be outranged, but her superb speed, magnificent armour protection, and her 15-inch guns would, combined, enable her to engage advantageously any ship now afloat."¹¹

Certainly one would have thought so; even her companion, *Repulse*, was a most formidable vessel of 26,500 tons, with six 15-inch guns and an array of lighter armaments. The *Hood*, however, was of more recent construction, weighed 45,000 tons, measured 900 feet in length, carried a complement of 1,440 officers and men, while her total of 157,000 horsepower made her capable of steaming at 30 knots.

Berthed at Ogden Point, the British Special Service Squadron (as it was known) quickly became the main focus of interest for Victorians during that week of high summer. Vice-Admiral Field, in a luncheon speech attended by the most prominent citizens of Greater Victoria, warned Canada to "consider the safety of her ocean commerce." He further added that "navies are the Empire's bulwark," and that

¹¹ *Victoria Daily Times*, June 21, 1924, p. 13.

"sea power was supreme."¹² Victorians, proud that their city was the only one in Canada to host the whole squadron at any one time, did not quarrel with these statements; although it should have been obvious that any progress toward an autonomous Canadian naval policy had for the foreseeable future at least, come to an end. Thus events at Esquimalt once again reflected a basic change in the role of the Royal Navy, and in the Admiralty's strategic plans for imperial defence.

Released from the burdens of home defence (since the German navy no longer existed), yet fully cognizant of the inadequacies of the naval forces of the new dominions *vis-à-vis* those of the expanding powers, like Japan, the Admiralty in London recognized that it would once again have to provide a far-flung defence system for the British Empire. The arrival of the *Hood*, therefore, signalled that a fifth phase of Royal Navy activity in the North Pacific was fully under way. For Canadian nationalists, it must surely have been a retrogressive step, despite whatever military logic was involved. The refit of the *Queen Elizabeth* at Esquimalt, 18 years later, could have been seen as the culmination of this developing process; in fact, as a project in the area it was never to be duplicated by the Admiralty on so large a scale again. Partially, this was because Canada, throughout World War II, finally created a naval defence force of her own that survived into the post-war era. But it was also true that the rest of the Empire, like Britain herself, had changed by 1945. The stopover of the R.M.S. *Queen Elizabeth* might therefore have been seen as a last gasp of British imperialism in the North Pacific; certainly today it is a combined American-Canadian defence system that protects the waters off the West Coast of North America, while Esquimalt has remained the principal Canadian base.

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¹² *Ibid.*, p. 15.

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RECORDING ARCHÆOLOGICAL DATA IN BRITISH COLUMBIA

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Most British Columbians who know anything at all about prehistory are much more familiar with some of the prehistoric cultures of Europe, Western Asia, and even Africa than they are with the story of man in their own Province before 1774. This is hardly surprising since the relative dearth of information on prehistoric British Columbia is shared as well by professional archæologists. The science of prehistoric archæology has been well established in Europe for more than a century. While a vast amount of research remains to be done in the western half of the Old World, the main themes of man's story there are for the most part at least reasonably confidently blocked out and some periods are known in fair detail. The number of scientists—archæologists and other specialists—concerned with the prehistory of Europe alone can be counted in the hundreds today.

By contrast, although the first (to my knowledge) published report on some of the archæological resources of this Province appeared in 1876,¹ it was not until 1949 that a professional archæologist was appointed (on a half-time basis until 1969) by a Provincial institution to carry out research into the prehistory of British Columbia. During the last five years the number of archæologists so employed has increased by 1,200 per cent, which still makes a total of only six individuals. At present there are two positions at Simon Fraser University and one each at the University of British Columbia, the University of Victoria, the Vancouver Centennial Museum, and the Provincial Museum. In some of these cases one or two technical assistants are permanently employed and variable numbers of temporary assistants, normally university students, are hired or volunteer seasonally, mainly for field projects. In addition to the research carried out by local archæologists (which is limited both by funds and by the fact that they are required to spend much or most of their time performing teaching or curatorial duties), archæological projects have been sponsored recently in British Columbia by outside institutions, notably by the National Museum of Man (National Museums of Canada), the University of Colorado, the National Historic Sites Service, and, to a lesser degree, by the University of Calgary and the University of Washington. The Provincial Archæological Sites Advisory Board annually supports small crews engaged in locating and salvaging archæological sites threatened by imminent destruction. Finally, the Archæological Society of British Columbia, an amateur group of professional orientation, has been doing some very competent volunteer work in the Vancouver area during the last couple of years.

Despite this superficially impressive amount of activity in recent years, the archæological sites and potential information destroyed annually without any record in British Columbia far exceed the amount of data recovered by archæologists. The agencies of destruction—natural causes, vandalism (whether intentional or not), construction projects of all kinds—are active everywhere and frequently depressingly efficient. Furthermore, the destruction we actually hear about may be comparable to the visible part of an iceberg. How much more is there that never comes to our

* Pinart, Alphonse, "A French Scientist Explores the Indian Mounds of the Pacific Coast Indian Remains on Vancouver Island." *Daily British Colonist*, Sept. 1, 1876, Victoria.

attention? The implications of this situation were expressed recently in a report issued by the Council for Canadian Archæology, as follows:—

“Archæologists throughout Canada have expressed deep concern for many years that sites which form the very foundations of their discipline are being destroyed by cultural and natural forces before they can be investigated. Unlike the basic documents of most other natural sciences, archæological sites are non-renewable resources; once destroyed, a part of the record of human history is forever obliterated.

“The loss to archæology is tragic; it is also of serious consequence to other Quaternary scientists. The full record of human prehistory is intimately related to the total environment in which man once lived. Therefore, archæologists must combine their efforts with geologists, paleontologists, paleobotanists, and others if they are to paint a true picture of man in his natural setting. This interdisciplinary approach produces an ever-accumulating backlog of information that benefits *all* of the contributing sciences.

“The loss is not only to natural science, but also to the humanities. One of the primary goals of archæology is the reconstruction of the history of man at all stages of development. Widespread general interest in the subject is evident in book sales alone; similarly, it is reflected in the relatively recent expansion of museum facilities throughout Canada, and in increasing museum attendance. . . .

“As for the social sciences, the preliterate background of modern society is the special realm of archæology. Attempts to understand and compare prehistoric cultural developments throughout the world are largely dependent upon the success or failure that archæologists have in unravelling the skeins of prehistory everywhere in the world.”²

The story of the groups of human beings who, millenia ago, entered the different regions of British Columbia, modified their cultures to cope with the new environments, interacted with one another, and evolved the brilliant Indian cultures known from the 19th century, is potentially one of the most fascinating and significant of these many worldwide “skeins of prehistory.” While it is the duty of the archæologists active in this Province to investigate and interpret the available clues to our prehistory, it must be a responsibility upon everyone in British Columbia to ensure that as many as possible of these clues be preserved intact and brought to the attention of archæologists for ultimate investigation.

As with other fields of research, it is possible to define the processes of archæological inquiry into a series of steps, distinguished by the relative degree of abstraction and interpretation involved, as follows:—

1. The assembling of data:—
 - (a) The location and superficial description of archæological manifestations (which normally means sites) on the ground.
 - (b) The recovery of a statistically adequate proportion of the cultural and environmental evidence preserved within a site or group of sites.
 - (c) The systematic collation of the information so recovered with other relevant cultural and environmental data.
2. The generation, modification, and selection of hypotheses which will explain satisfactorily all the relevant data in terms of past events and processes. At this stage the archæologist is attempting to “write the prehistory” of the region with which he is concerned.
3. The generalization from the results of many such endeavours around the world about the nature and history of man and culture.

² Forbis, R. G., Compiler, 1969. “Salvage Archæology,” a report compiled by the council for Canadian archæology.

Of these, the last is, of course, the ultimate justification for archæology in that it helps to satisfy humanity's need for self-knowledge. Enormous progress has been made toward this goal over the last century, but prehistoric British Columbia's contribution to the total story of man remains very largely unknown.

The total story is made up of a great many chapters, which are the regional prehistories. At that second level of abstraction our archæologists have not been particularly loath to venture forth, in print and otherwise, with hypotheses that attempt to relate and explain the data at their current command. While many of these interpretations, we may hope, must conform fairly closely to the prehistoric events and processes which actually occurred, a feeling of uncertainty and even uneasiness exists related to doubts about the statistical adequacy of the data upon which some of them are based. This feeling is compounded by the knowledge that much of the potential data which could serve to clear up these doubts has been or will be destroyed without being investigated. More of it continues to exist, but the fact of its existence remains unknown to archæologists.

It is, therefore, with this fundamental stratum of primary archæological data in British Columbia that I wish to deal here. It is obvious at the outset that the professional archæologists are never in the foreseeable future going to be able, in the race against the destruction of our archæological resources, to do all that has to be done by way of locating, preserving, and recording these basic documents of our science. Fortunately, in this respect there is a great deal that members of the general public can contribute, even without special training. It is doubly fortunate that there exist numbers of individuals—amateur archæologists and collectors, naturalists, etc.—and of groups such as local museums and archæological, historical, and natural history societies, which have special interests in this field as well as the time and energy to do something worth while about it.

Since 1960, in addition to the appointment of archæologists, a number of preliminary steps have been taken on an official and semi-official basis to organize the collection of archæological information in British Columbia. The legal framework was set by the *Archæological and Historic Sites Protection Act, 1960*, copies of which are available for 10 cents from the Queen's Printer, Victoria. This legislation provides legal protection from disturbance to certain categories of sites, sets up a system of permits to control and co-ordinate archæological fieldwork in the Province, allots at the discretion of the Government a small annual grant for site location and salvage, provides an instrument by which corporations carrying out large construction projects can be required to support preliminary salvage of archæological sites that will be destroyed by their activities, and stipulates penalties for acts of archæological vandalism or other violations of this law.

Arising out of the Act, an Archæological Sites Advisory Board was appointed, whose primary function is to advise the Minister responsible (the Provincial Secretary) regarding the administration of the Act, but which has also been able to sponsor a considerable quantity of fieldwork—site surveying and salvage excavation—since 1961. From 1966 the Board's fieldwork has been co-ordinated by a part-time Field Director, a task which is presently being carried out by the archæologist at the University of Victoria.

Contemplated as a desirable possibility for the near future is the appointment by the Board of a full-time Provincial Salvage Archæologist who would assume the present duties of the Field Director, undertake the day-to-day administration of the Act, and be available at short notice to inspect archæological sites reported as being threatened by disturbance. Where the need for archæological salvage is apparent, it would then be his responsibility either to undertake the work himself or, more

frequently, to contract the project to another institution. Also being considered is the establishment of a system of honorary "wardens," knowledgeable and responsible amateur archæologists in centres throughout the Province who would be in a position to seek out and receive reports of archæological significance in their own areas and pass the information on to the Provincial Archæologist or to the Provincial Museum.

By agreement among the archæologists active in this Province, the Provincial Museum has been designated the central repository of archæological data files relating to British Columbia. A start has been made on assembling and organizing this material here, and consideration is being given to a data processing system by which the collation of this information might be efficiently processed.

These files consist primarily of the site file and copies of manuscript reports resulting from Board-sponsored projects and reports required as a condition of permits issued under the Act. In addition, though far from complete, there may be duplicate copies of artifact catalogues, field notes, and comparable data resulting from the activities of other institutions and individuals.

The site file is the key to the organization of all the rest of the archæological data for the single most important fact which must be known to assess the significance of material remains from past cultures is their original location or context. Sites are numbered according to a scheme based on geographic co-ordinates, which was proposed by Dr. Charles E. Borden of the University of British Columbia in 1952.³ This scheme has since been adopted for general use by archæologists across Canada. As indicated by the map, the country is divided for this purpose into large units, two degrees of latitude north-south by four degrees of longitude east-west. Each of these units, which is identified by a pair of capital letters, is further subdivided into smaller units, 10 minutes in each direction. These small unit areas are the primary entities by which sites are located, and they are designated by the addition of a lower-case letter following each of the capitals which identify the large unit areas. All of the latter, therefore, have subdivisions a-1 running south to north and a-x running east to west. This results in a four-letter designation distinguishing an adequately small geographic block from every other in Canada. Within that block, sites are assigned consecutive numbers as they are recorded. For example, the important Milliken site in the Fraser Canyon is listed as DjRi 3, which means it is the third site recorded in the area between 49° 30' and 49° 40' N. and between 120° 20' and 120° 30' W. In practice, although anyone can determine the unit area in which a given location occurs, the site numbers have to be assigned by the Provincial Museum in order to avoid duplication.

It is in the reporting of information about archæological sites that non-professionals can make the greatest contribution. Indeed, despite an intensive programme of site surveying in certain parts of the Province over the last few years, most of the sites on record were originally reported by members of the public. We can be sure that only a small minority of the locations showing evidence of utilization by prehistoric Indians are presently recorded. Large areas of the Province are totally unreported, for many more we have only sketchy and sporadic information, and even from relatively well-known districts we continue to learn of new site locations. Many old sites are quite hidden from view until development involving clearing or disturbance of the ground surface reveals them. It is best to assume, therefore, that any site of which you may have knowledge is probably not recorded and should be reported. Even if it is already on file, your observations may well add additional information of value.

³ Borden, C. E., 1952. "A Uniform Site Designation Scheme for Canada," *Anthropology in British Columbia*, No. 3, pp. 44-48, Provincial Museum, Victoria.

The site record form in current use is illustrated. Copies of this may be obtained by writing the Provincial Museum or this may simply be used as a guide to the sort of information sought which can be written out on any sheet and forwarded to the Museum. Obviously, not all categories of information provided for on the form are appropriate to every site, and some of the information solicited may not be available to you. Incompleteness, however, need not be considered any reason to hesitate in submitting a site report.

While the form shown should be largely self-explanatory, a few comments may be helpful:—

1. Location and access: This is obviously the most important single query. A terse description relating the location by distance and compass direction from obvious mapped landmarks so the spot may both be pinpointed on a map and located in the field from your description is desired. Section, lot, and plan numbers, if known, and geographical co-ordinates are useful, as is a rough sketch map.

2 and 3. Any names by which the site is or, to your knowledge, has been known.

4. Type of site: For example, occupation, camp or village site; shell midden; pithouse village; burial ground; quarry or workshop; pictograph or petroglyph location, etc. In the case of the latter (Indian paintings and carvings on rock), categories 6, 8, 9, 11, 12, 13, 14, and 20 are unlikely to be pertinent, but sketches and photographs are especially desirable.

6. Depth of deposit may only be visible where the site has been partly disturbed, as for instance where a bank has been eroded back by wave action.

8. Water: Nearest suitable source of drinking-water.

9 and 10. Vegetation actually growing out of an archaeological deposit may be significantly different from that immediately surrounding the site.

11 and 12. A similar distinction is made between the material of which the site is composed and the natural surface of the vicinity.

14. Habitations: Any visible evidence, such as standing or collapsed house frames, house pits (sometimes called kickwillies, kekullis, etc., in the Interior), or depressions in the ground, of former Indian dwellings.

15. Other features: Such as, for example, cairns (artificial rock piles), mounds, grave houses, cache pits, or any other features of interest.

16 and 17. To what degree and by what agencies has the site deposit been disturbed and what is the likelihood of disturbance or destruction occurring in the future?

18. What artifacts or other material are known to have been found at the site and who has them now?

21. Where could a professional field party conveniently camp or rent accommodation if investigation of the site should be carried out?

22. If you do not know what Indians occupied the region, this can be added by the Museum.

24. Informants: Any Indians or pioneers of the area who may have special knowledge about the site and of its former patterns of use by the Indians.

25 and 26. Enter appropriate Government map and aerial photograph numbers, if known.

27. Reference to any useful photographs of the site or of material from the site.

30. Name and address of person reporting the site.

31. Name of person with archaeological training who has looked at the site.

32. Name and address of individual who has made out this report.

The other main category of archaeological data with which non-archaeologists and amateurs are most likely to be concerned has to do with artifacts, material objects which are in some way modified by human use. Artifact collecting is a favourite hobby of a great many people, but anybody who visits an archaeological site has a chance of finding one or more Indian artifacts. When recording a site it is usually desirable to make a systematic search over some proportion of its surface to recover *all* artifacts (no matter how fragmentary or unprepossessing) that may be lying there. This constitutes an important part of the information about the site. In any case, it is most essential that artifacts found at one site be kept together and not mixed up with material from a different site. The original context of a find is its most significant attribute and artifacts, however beautiful, whose original location has been lost, forgotten, or confused become very largely frustratingly meaningless baubles. Having picked up some artifacts and recorded their locations, the finder then has to decide whether to keep them for his own collection or to turn them over to a responsible museum or archaeological laboratory. The latter choice obviously has much to recommend it from a scientific point of view and if you are not so keen as to want to accept the responsibilities that go with keeping a collection, it is the better course to follow. Which institution should receive it is obviously for the finder to decide, but he should be sure

- (a) that the site from which they came is within the museum's geographical field of interest and competence;
- (b) that the museum will catalogue them properly;
- (c) that the museum is in a position to ensure their preservation and that of the information associated with them for posterity;
- (d) that the material will be made available for professional study and the data concerning them be deposited with the central data files at the Provincial Museum or with one of the archaeologists who is in a position to handle it.

It is not desirable that a collection should be dispersed by giving pieces away to private collectors or even (as has happened surprisingly often) to casually interested visitors.

Anyone who elects to keep an artifact collection for himself should feel a moral obligation to observe personally the same four points just outlined. The most vital single step which must be taken as soon as possible is to catalogue the objects according to site so that this essential information will never be lost. The principle of cataloguing is very simple. Each artifact is assigned a unique number which is written upon it and which corresponds to a written entry in a book or file. Therein is recorded after its number a brief description of the artifact, the precise location where it was found, the date, finder, and anything else that might seem significant regarding the circumstances or location of the find. The description should include the material of which the object is made, the nature of the human alteration to the raw material, and, if possible, a tentative functional interpretation: For example, "Chipped obsidian projectile point"; "Ground slate knife." Dimensions should be given and it should be noted which if any are fragmentary. A sketch or outline drawing is highly desirable.

Obviously, rather than devising a makeshift site and artifact numbering system of your own, it would be a good idea to integrate your artifact records with the national system. This can be readily done by writing to the Provincial Museum with a descriptive list of the sites from which you have collected and the number of artifacts you have to record from each. We will then assign blocks of numbers you can use to record your own collection with the assurance that these will not duplicate the

numbers on artifacts in any other collections. An artifact number will then take the form "DjRi 3:1079" of which the "DjRi 3" identifies it as having come from the particular site and the 1079 is uniquely assigned to that object from that site. In return we will ask for a carbon copy of your artifact catalogue.

The most efficient technique for writing the number upon an artifact is to apply a small dab of colourless nail polish to a reasonably inconspicuous spot on the cleaned object. When that is dry, write the number on it in India, white, black, or red ink (to contrast with the shade of the object), using a fine mapping-pen. This should finally be covered over with another dab of clear nail polish. The result is a permanent marking which can only be removed with acetone or nail-polish remover.

In thus encouraging amateur collectors of artifacts, perhaps it is necessary to emphasize once again that no one without specialized training in archaeological techniques and a sophisticated knowledge of prehistory should attempt to dig into or otherwise disturb intact archaeological deposits. In some cases this is against the law, but in all cases it is destructive. Only with the knowledge and techniques adequate to be able to recognize and record on paper the information and meaningful relationships which are being destroyed by excavation is such action justified and then only provided that the excavator is able to ensure that the essential subsequent stages of analysis and publication of these raw data are followed through. In fact it has been observed time and again that excavation is a much less productive and efficient technique for acquiring artifacts (as opposed to information) than is surface collection, where natural erosion has already done the heavy work.

It is to be hoped that by the increased attention of both professional and amateur archaeologists to the preservation, recovery, and recording of archaeological data here, prehistoric British Columbia will now begin to emerge more rapidly into the light of human knowledge.

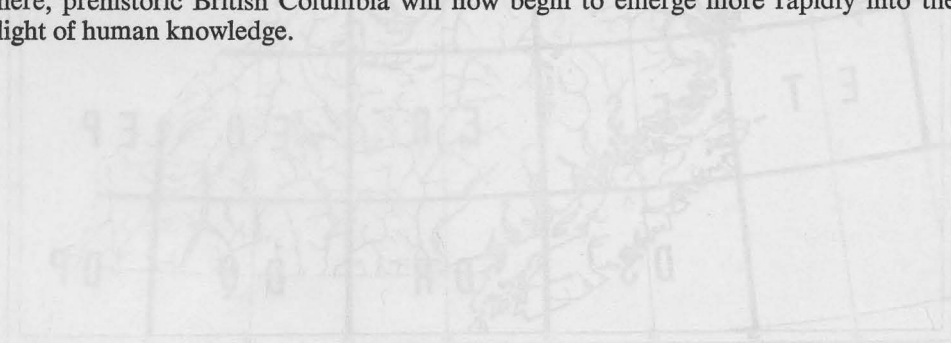


Fig. 1. Site designation scheme. Large unit areas in British Columbia.

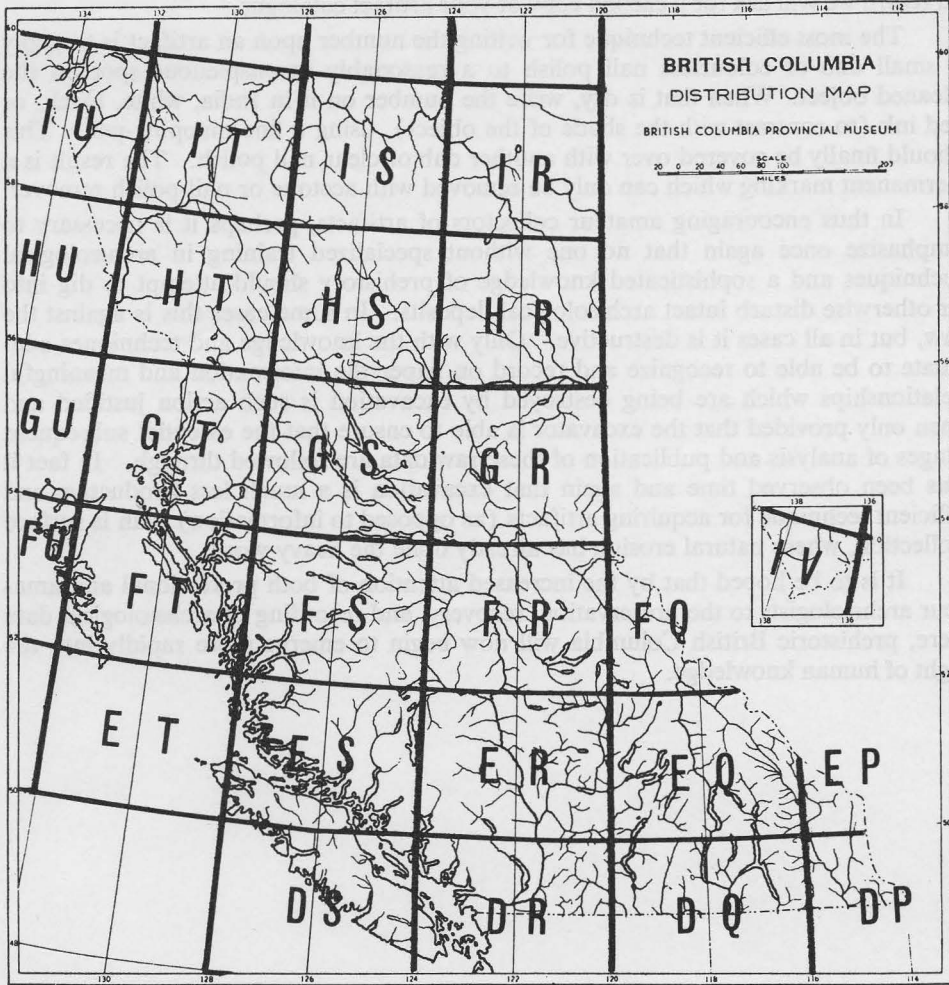


Fig. 1. Site designation scheme. Large unit areas in British Columbia.

Site No.

**BRITISH COLUMBIA ARCHÆOLOGICAL SITE
SURVEY FORM**

1. Location and access.....
.....
.....

Sec. Lot Plan ° ' " N. ° ' " W.

2. Site name 19. Owner(s)/tenant(s) past and present.....

3. Previous designations.....
.....

4. Type.....
.....

5. Dimensions..... 20. Attitude to excavation.....

6. Depth of deposit..... 21. Camping facilities.....

7. Elevation.....

8. Water..... 22. Historically territory of.....

9. Vegetation on site..... Indians.

10. Surrounding vegetation..... 23. Site was/was not occupied by Indians in
historic times until.....

11. Fill of site..... 24. Informants.....

12. Subsoil and surrounding soil..... 25. Map.....

13. Burials..... 26. Air photo.....

14. Habitations..... 27. Photographs.....

15. Other features..... 28. Published references.....

16. Present condition..... 29. Remarks and recommendations.....

17. Possibility of future disturbance.....

18. Known finds and present location..... 30. Reported by.....

..... 31. Observed by.....

..... 32. Recorded by.....

..... 33. Date.....

DESCRIPTION OF SITE

Site No.

(Continue or expand on back if necessary. Sketch map is desirable.)

Fig. 2.

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1969