

HORSE DAYS AT THE COW RANCH

Simon Evans

While many of the large corporate ranches of foothills country wound up their affairs during the first decade of the 20th century, the Bar U Ranch transcended its regional importance and became, for a time, internationally famous as the largest purebred Percheron stud ranch in the world. George Lane and his Alberta ranch were well-known not only in the Midwestern States and throughout the Pacific Northwest, but also in France and on the landed estates of lords and dukes in Great Britain. It was no accident that when His Royal Highness the Prince of Wales expressed a desire to see a "real ranch" during his cross-Canada tour in 1919, the Bar U was selected as his destination.

In 1906, George Lane persuaded his reluctant partners, the Winnipeg cattle shipping firm of Gordon, Ironside, and Fares, to allow him to expand his horse breeding business at the Bar U. (Lane already ran a herd of good grade Percheron mares at his YT Ranch on the Little Bow River.)

During 1907–9, Lane and his agents repeatedly visited La Perche area of France and purchased both stallions and mares from the best available bloodlines. By the outbreak of World War I, Lane was running as many as 300 brood mares at the Bar U, and he obtained an increase of more than 100 foals in a good breeding season. When Louis Aveline, the son of the president of the French Percheron Society, visited the Bar U, he recognized many of the horses imported from his home region and declared the Bar U Percherons were the equal of any found in France (Bruce 1992:13).

For a decade or so, Percherons from the ranch dominated North American show rings, and the ranch house became a depository for a wonderful collection of cups, trophies, and medals. Unfortunately, the agricultural depression, which followed the end of the war, caught Lane in failing health and financially overextended, and the glory days of the Bar U Percherons were over.

This important episode in the long his-

For over a decade, Bar U Ranch was the largest Percheron stud ranch in the world, exporting stallions to the United States, Europe, and even Japan



Pride of the Prairies: Bar U Percheron horse team

tory of the Bar U Ranch demands investigation and raises some interesting questions. What were Lane's motives for embarking on this new venture? What messages was he receiving from the economic environment that prompted him to diversify his operations and to enter the specialized field of horse breeding?

Lane must have been acutely aware that

the open range methods of raising cattle, which he had perfected, were under threat of extinction: the big closed leases had been canceled; the railway had been built through the heart of the ranching country between Calgary and Fort Macleod; and farm settlement was burgeoning around Nanton,

Archives NA-2046-

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Volume 2 • Issue 3 • Winter 1994

STATEMENT OF PURPOSE

The main goal of this publication is to foster communication between scientists, resource managers, and science and management. Please note the views of the authors do not necessarily represent the views of Parks Canada or its employees.

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FRANCOPHONES

Le texte de cette publication est offert en français. Vous pouvez l'obtenir en écrivant a l'adresse cidessus.

SUBMISSIONS WELCOME FOR SPRING ISSUE. DEADLINE IS FEBRUARY 5, 1995.

EditoriaL

"Cultural Resource Management is an integrated and holistic approach to the management of cultural resources. It applies to all activities that affect cultural resources administered by Parks Canada, whether those activities pertain primarily to the care of cultural resources or to the promotion of public understanding, enjoyment and appropriate use of them." - Parks Canada Cultural Resource Management Policy

This issue of *Research Links* highlights cultural resource studies and management activities in Alberta and the new Pacific and Yukon regions. The regions are full of cultural resources, research, and management, yet previous issues of *Research Links* have focused on the natural environment. Here the balance is redressed, and at an appropriate time: in 1994, Parks Canada approved a longoverdue refinement of Cultural Resource Management Policy.

The federal government has been responsible for promoting cultural heritage in landscape settings since the establishment of the Historic Sites and Monuments Board of Canada in 1919 and the passage of the National Parks Act of 1930-in other words, for most of this century. This legislation, while adequate for defining sites of significance, desired units of land assembly, and directions for commemoration and interpretation, fell short of the needs of park and site managers charged with protecting cultural resources. The legislation was not always clear on the nature of cultural resources, and some precise definitions and criteria

were needed for cultural resource managers to fulfil their duties. These legislative ambiguities were tackled in the amended National Parks Act of 1988, which made a greater provision for the identification and protection of cultural heritage resources. In response, Parks Canada staff began developing a detailed CRM policy in 1990, and this policy that is now part of the 1994 Parks Canada Guiding Principles and Operating Policies. This year, resource specialists spent much time orienting colleagues to the details of the new policy through regional workshops and CRM field schools. The main—and quite lofty—objective of the policy is to better "manage cultural resources administered by Parks Canada in accordance with principles of value, public benefit, understanding, respect, and integrity." This objective, as well as the entire policy, is part of an attempt to combat the perception that cultural resources are somehow less than equal to natural resources. Parks Canada's long-term hope is to establish evaluation and decision-making that will lead to a fairer assessment of cultural resources in park management planning exercises. In national parks in particular, this should help put them on par with the natural resources.

The concentrated work at policy and legislative levels reflects the significant amount of research and management of cultural resources taking place in the parks and sites, and the time seems right for *Research Links* to bring these activities to light. As you read through the issue, reflect for a moment where this new focus is taking us. The future will hold many challenges for people involved with cultural heritage research and management. It will be exciting to see how the status of cultural resources will change under this increasing emphasis and deeper understanding of their real value

AROUND THE PARKS

EVIDENCE FOR EARLY POST-GLACIAL HUNTERS IN JASPER NATIONAL PARK

Peter D. Francis

An intact specimen of an early type of projectile point, around 9 000 years old, was found in Jasper National Park this summer. Collected as an isolated surface find by wardens Chris Doyle and Jim Bertwistle on the Overlander Trailhead north of the Jasper townsite, this artifact is an example of a type of spear point known as an Alberta Point.

The Alberta Point is one of a series of lanceolate-shaped projectile point types made by early post-glacial hunt-ers during the Early Prehistoric Period. It was designed to be hafted onto the end of a sturdy wood shaft, which would have been used as a heavy stabbing spear. This particular specimen is made from a fine-grained, greybrown quartzite from a currently unknown source. Its large stem, typical



The Alberta Point: a rare discovery

of the type, facilitated the hafting process.

This specimen is a rare and significant find; the first of its kind to be recovered in Jasper. It provides substantive evidence for the presence of early post-glacial hunters in the mountain ecoregions during the early phase of the peopling of North America. Parks Canada archaeologists will follow up on this find by carefully inspecting the area during the 1995 field season.

Peter D. Francis is an archaeologist at Alberta Regional Office. For further information, please call (403) 292-6472.

SCIENCE AND HISTORY AT ELK ISLAND

Parks Canada historian Graham A. MacDonald has completed Science and History at Elk Island: Conservation Work in a Canadian National Park: 1906-1994, a study in Parks Canada history. The study was initiated in 1992 in support of the park management programme for Elk Island National Park. Its purpose was to review the main lines of land use and policy development that had characterized the park since its establishment in 1906. At that time, 16 square miles in the vicinity of Astotin Lake were set aside as a wildlife sanctuary within the federal Cooking Lake Forest Reserve. Only in 1913 was this so-called "Elk Park" formally absorbed into the system of Dominion Parks and Forest Reserves sanctioned by 1911 legislation.

MacDonald deals with various themes relevant to park history and to current efforts to redirect certain policies. He provides a summary of land and life in Beaver Hills up to the time of park establishment; discusses threatened wildlife and fundamental developments' at Elk Island in the years 1906–1930 when the new National Parks Act was passed; reviews the evolution of North American ideas about wildlife conservation in 1870-1945; and examines the efforts to control and conserve large ungulates at Elk Island, with particular attention drawn to the rapid changes in medical knowledge and veterinary practice.

He also considers the steady increase in visitor use and demands, and debates the logical place of Elk Island as a regional park landscape since 1970 to the present, and the implications of the ungulate conservation programme in a system moving towards a greater interest in the management and restoration of ecosystems.

For further information, please call Graham A. MacDonald, an historian at Alberta Regional Office, at (403) 292-8865.

FEEDBACK.. Perhaps the best and most positive

feedback Research Links has received to date is the almost daily expansion of our mailing list. Some of our readers have made some direct comments, however, and here is a short sampling.

"I find the information you provide to be well researched and very interesting.'

Chris Reynolds Environmental Coordinator Prairie and Northern Region

"I enjoyed looking at the Fall 1994 edition of Research Links. In purpose, this publication is identical to Park Science.... I'd like to receive your publication on a regular basis."

Jeff Selleck, Editor, Park Science National Park Service, U.S.

"The resource conservation section at our park just recently received a copy of your publication for review. It was well received and requests were made to see if our park could be placed on your circulation list. The subjects of the newsletter are of direct interest to our staff and associated researchers."

Mark Wiercinski, Senior Park Warden Bruce/Fathom Five National Park

"I have just received the Fall 1994 issue of Research Links, for which thank you very much. It gets better all the time. I think it would be an excellent source of information for field managers and would like to bring it to their attention. That might also bring about more input from Manitoba, Saskatchewan, and the Northwest Territories to what could become a national journal. I look forward to the next issue.

Richard Stuart NHS Coordinator Prairie and Northwest Territories

"What a wonderful publication you've put together. I've already cut up the fall issue and faxed pages of it to colleagues who will be most interested in the articles.'

Hugh Penwarden, Head Gardener **Riding Mountain National Park**

We appreciate your comments and look forward to more readers' feedback (we welcome criticism, too... how else can we improve?). Enjoy this issue, and may there be many more to come.

Editorial Board **Research** Links

Parks Canada historians examine the planning of a Jasper golf course Cultural Landscapes

C.J. Taylor

The phrase "cultural landscape" indicates both a subject of study and an approach to the evaluation of cultural resources. As an approach, a cultural landscape is an holistic and integrative concept that compares with the idea of ecosystem.

An attractive aspect of studying cultural landscapes is that the investigator must be in it-actually experiencing it-in order to understand it. Thus, July found Parks Canada's Ted Mills and me walking around the links of the Jasper Park Lodge golf course as part of an evaluation of the facility as a heritage resource. The first task was reasonably straightforward: documentary research informed us the course had been designed in 1925 by Stanley Thompson, who was the pre-eminent Canadian golf course architect of the inter-war period (the Jasper course helped establish his national and international reputation). The next task was to identify the distinguishing features of the Thompson course and to ascertain how much survived. To do this, we walked the course, comparing views with 1925 photographs and the original course plan. Looking at the course in this way brought character-defining elements into focus. That Thompson lined up some of his greens in front of prominent mountain peaks is wellknown; less generally appreciated is his moulding of the course to reflect the contours of the mountain backdrop. The shape

"That Thompson lined up some of his greens in front of prominent mountain peaks is well-known; less generally appreciated is his moulding of the course to reflect the contours of the mountain backdrop."

and contours of the bunkers and traps echo the contours of the mountains beyond. Remarkably little had changed from the original design.

As well as being a challenging and prestigious recreational facility, the course serves



Imitating Nature: Note how the curves of the course reflect the contours of the mountains

as an ordered buffer between the lodge and the natural landscape beyond. Its strategic lakeside location places the course in prominent view from the main lodge and reinforces the park-like setting of the grounds. The course continues the rustic theme established by the older guest cottages. The golf shelters are of log construction, the tee markers are buried tree trunks, and the tee platforms are supported by fieldstone walls.

Rather than single out discrete features, we endeavoured to regard the integrated whole. Refining this approach, we described three concentric zones, each with its particular set of characteristics. The middle zone is comprised of the links-tees, fairways, and greens-forming the playing zone. An interior zone, located within the centre of the playing circuit, is comprised of natural forest and areas of mixed service uses, while the perimeter comprises natural features of lake and forest and developed areas, which include the clubhouse and associated guest facilities. The important element of the playing zone is the sequence, orientation, and landscaping of the links, which are largely unchanged from the original Thompson plan. Important features of the perimeter zone include the forest edge and a group of rustic buildings that tie the rustic theme of the course to the larger lodge facility. The interior zone is important for its forest edge and it also contains two historically interesting buildings, one of which (the greenskeeper's house) has important connections to the early history of the course.

The heritage character statements serve as a guide for the continued management of the site. Taken together, they suggest the degree of cultural significance of the course. The zonal heritage character statements provide guidance for the on-going management of the site, indicating sensitive areas as well as areas that can sustain further development. The heritage character statements indicate features such as buildings, vegetation, and other landscape details requiring care that may require special attention. These cultural attributes will be assessed with the biophysical resource description and analysis in guiding the future planning of the site.

In the case of the Jasper Park Lodge golf course, we find an important cultural resource, but in studying a cultural landscape, we have also brought to bear an approach to a cluster of cultural resources, understanding them in a particular context. The usefulness of this approach is demonstrated by its applicability to the Jasper Park Lodge planning exercise. Similarly, studies of the broader cultural landscapes at the Bar U, Sgun Gwaii, and McLean Mill are aiding the planning processes at those sites as well.

C.J. Taylor is an historian at Alberta Regional Office. For further information, please call (403) 292-4470.

Mysterious Graves

Archaeologists discovered more unidentified graves at Rocky Mountain House

Roderick J. Heitzmann

For many people, archaeology conjures up images of Indiana Jones digging away at human burials to obtain cursed treasure. The reality, of course, is much different. Archaeologists rarely locate burials and excavate them even more rarely.

The presence of human burials at Rocky Mountain House National Historic Site presented some management challenges. When a gas compressor plant was constructed in 1969 in the vicinity of the site, 14 human burials, dating to the 19th century fur trade period, were located accidentally. An additional 12 burials were uncovered when the plant expanded in 1979.

There is an historic record of these burials. In 1857, the Reverend Thomas Woolsey, a missionary, visited Rocky Mountain House and recorded in his diary that he "...visited one of the cities of the dead in the afternoon. It is certainly one of the largest burial grounds I ever saw, being uninclosed *[sic]*, and consequently may be regarded as occupying a vast tract of country" (Woolsey 1858: 356).

The presence of known burials and the historic reference to them led to a series of questions. Are there more burials near the gas plant? Do the known 26 burials constitute the total of Woolsey's "largest burial ground I ever saw"? Was this the only cemetery used for the four different forts occupied at Rocky Mountain House in 1799–1875?

To address these and several other archaeological management issues, a research programme was developed for the site. One objective was to disrupt resources as little as possible in order to follow Parks Canada's *Management Directive 2.3.1 Human Remains, Cemeteries and Grave Sites* (1990), which specifies all cemeteries and graves are to be treated "with reverence, respect, and dignity."

The research strategy was to conduct near-surface geophysical surveys in order to focus in on buried objects and features. Once these were identified, further steps could be taken. Funding for the project was provided by Parks Canada and by a grant from the Canadian Parks Partnership to the Friends of Rocky Mountain House.

In 1993, five areas within the boundaries of the site were examined using electromagnetic resonance, soilresistivity, and groundpenetrating radar which indicated a number

of anomalies; that is, indicators of soil disturbance. In 1994, a number of suspected spots in one of these examined areas were selected for test excavation. These anomalies turned out to have been caused by a variety of buried objects-a dump of 20th century farm machinery parts; a 50 cm deep pit filled with cobbles and a piece of sheet copper; a rectangular arrangement of large rocks; and a fence post.

One of the less distinct anomalies did lead to the identification of a grave. The grave had a rectangular outline of cobbles at the former ground surface. The fill of the grave was removed to the top of

a simple wooden coffin. On the surface of the coffin were remains of a black cloth shroud. The coffin was held together with common wire nails. As these nails were not manufactured until after 1880, this grave could only have been placed here after that time, and, as the former owners (the Brierley family) purchased this land about 1920, but did not know who was buried here, the burial dated to 1880–1920.

We decided not to open the coffin.

"Parks Canada's Management Directive 2.3.1 Human Remains, Cemeteries and Grave Sites (1990)... specifies all cemeteries and graves are to be treated 'with reverence, respect, and dignity.""

Within two metres of this grave, a second one was also located. The latter did not have a cobble-lined border, but the remnant of a wooden stake near the surface is likely to have been the base of a cross. This grave was not excavated because its orientation was parallel to the first burial and almost cer-



Rocky Mountain House: Hiding a "city of the dead"

tainly dates to the same time period. Both graves were large enough to contain adultsized coffins.

Who were these individuals? How did they get buried at Rocky Mountain House? Their identities will probably never be known. It is most probable that after Rocky Mountain House was abandoned by Hudson's Bay Company for the last time in 1875, freemen or settlers lived near this location and when two of their number died, an old river meander was selected for their burials.

Of the remaining areas surveyed in 1993, testing of two additional areas is planned in the future: an area adjacent to the Rocky Mountain House of 1835–1861 where anomalies suggest the presence of buildings outside the palisade, and a terrace to the southeast where anomalies suggest the presence of native encampments.

Roderick J. Heitzmann is an archaeological resource manager at Alberta Regional Office. For further information, please call (403) 292-6472.

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Letters from Rev. T. Woolsey. *Wesleyan Missionary Notices. Canada Conference* No. XVI. Quarterly, Microfilm, University of Alberta.

Teaching cultural resource management

Cornell Wynnobel

The first Cultural **Resource Management** field school was held at Bar U Ranch National Historic Site on September 20-23, 1994. This field school was a national pilot programme intended to provide staff responsible for the protection and presentation of cultural resources in national parks and sites with the knowledge of field application of the



The Bar U Ranch was an exciting venue for the CRM field school

principles, practices, and activities outlined in the Cultural Resource Management Policy.

The Bar U Ranch National Historic Site venue offered an opportunity to expose CRM managers to an actively developing site with ongoing projects in archaeology, conservation, restoration, architectural conservation, interpretive and curatorial planning, and environmental assessment. During the three days of the field school, various professionals were actively working at two locations and provided examples for the field school. Participants witnessed and took part in some of the hands-on work to get an appreciation of the activities that

Guest Lecturer Video Series

The seminar series initiated by Parks Canada, Alberta Region, in 1993, is about to enter its second year. It features speakers who conduct research within the region's national parks. Each session is videotaped by a Heritage Communications specialist for future viewing. The series was developed to showcase parks' staff research project, inform staff about parks' research, and offer opportunities to exchange information with other people and agencies. There are now about dozen videos in the series, and more are added each month.

Bailey, Renata. January 20, 1993. The Effects of Campfire Wood Smoke on Air Quality.

- Brown, Kent. February 10, 1993. The Greater Jasper Ecosystem Caribou.
- Fedje, Daryl. February 16, 1994. Paleoecology and Prehistory in Gwaii Haanas.

Feick, Jenny. March 2, 1993. Mountain town with a vision: Revelstoke, BC.

Harper, John. April 14, 1993. Gwaii Haanas Coastal Zone: Implications for Resource Management.

Lieff, Bernie. October 27, 1993. Glimpses of the Russian Far East. Masakovsky, Nicolai. April 27, 1994. National Parks and Other Protected Areas in Russia and Other Republics of the Former Soviet Union.

- Martinson, Marty. January 18, 1994. Huangshan: Scenic Area of China.
- Oetelaar, Gerald. November 10, 1993. Archaeology of the Bar U Ranch: The University of Calgary 1993 Archaeology Field School.

Woods, John. July 21, 1993. Banff Highway Fence: Does It Work?

The videos are available, on loan, from **Geoff Lawrence**, head of A/V Media Services, at (403) 292-4501.

make up the practice of cultural resource management and in turn see the application of the practice and the activities of the CRM Policy in their own parks or sites.

The field school proved to be a valuable exercise in wrestling with some philosophical and operational issues in light of the direction given by the policy. It gave the participants some appreciation of the complex-

ity of cultural resource management issues, in which operational and financial constraints may conflict with the requirement to protect and present resources to the public. The discussion and activity generated illustrated that an organizational ethic of managing resources by the principles of value, public benefit, understanding, respect, and integrity was beginning to grow.

Cornell Wynnobel is a cultural resource management specialist at Alberta Regional Office. For further information, please call (403) 292-4652.

FIELD SCHOOL OBJECTIVES

- to provide participants with an opportunity to apply the Cultural Resource Management Policy to real resource management situations where multi-disciplinary considerations are required;
- to provide field staff the knowledge and the language to deal with technical specialists in order to manage their cultural resources;
- to become familiar with the activities of the various professional functions involved in site planning and development and to see their field role in these activities; and,
- to stimulate intellectual discussion on the application of the principles, practices and activities of the CRM Policy in the work that they are doing.

Protecting National Collections

Parks Canada's conservators often work in adverse and difficult conditions, struggling to protect cultural resources from dust, water, rodents, and other calamities

Christine Feniak

The maintenance of collections is among the most demanding, yet least visible, tasks that is performed at the national parks and sites. Most museums house their artifacts in environmentally controlled buildings designed for this purpose while Parks Canada displays are often in historic buildings that have few controls over environmental factors that accelerate damage to artifacts. Under these circumstances, the result of hours of careful, exacting, and difficult work (like cleaning fragile objects in buildings that may lack basic services such as electricity) is simply a clean display.



Hours of exacting work: Conservator Michael Gair restores an artifact

These challenges to Parks Canada's conservators are compounded by the volume of work, the skyrocketing costs of treatments, and the constant shrinkage of available funds. It has become necessary to re-examine the conservation process and develop an approach that will make the best use of our resources by positively affecting the largest number of artifacts.

There are four basic levels of conservation (Bandes 1984). Level one includes actions that treat the collections as a whole and slow their deterioration on a broad scale. These might include reducing light and dust levels or regularly monitoring for rodents or insects. The primary goal of level two is object preservation: the prevention and retardation of further deterioration or damage to a specific object; for example, removing dust from specimens on display or applying protective coatings to metal artifacts. Actual conservation treatments-"actions taken to return a deteriorated or damaged artifact as nearly as possible to its original form, design, colour, or function" (Ibid.)-make up the third level of conservation. At the fourth level are in-depth scientific research and technical examinations of artifacts.

Levels three and four make up the traditional treatment approach to conservation. Done by professional conservators in specially equipped laboratories, these traditional treatments are costly and time-consuming, affecting a limited number of artifacts.

"Treatment conservation will always be necessary, and can be likened to the dramatic stories of surgeons saving people from consequences of disease or accidents. However, the most important part of conservation, like medicine, is prevention."

Levels one and two form the core of preventive conservation. They stretch conservation funding the most and affect the largest number of artifacts.

Treatment conservation will always be necessary, and can be likened to the dramatic stories of surgeons saving people from consequences of disease or accidents. However, the most important part of conservation, like medicine, is prevention.

The Parks Canada Collections Care Section has been very active in these areas this year. Condition assessments were carried out at many sites, including Fort Rodd Hill National Historic Site, Fort St. James National Historic Site, Fort Langlay National Historic Site, Pacific Rim National Park Reserve, and the Sulphur Mountain Weather Observatory in Banff National Park.

The on-going challenge of rodent control within the Sulphur Mountain Weather Observatory is a good example of the preventive conservation approach. Collection Care

conservators, working with site staff, produced a site maintenance manual that outlined the standards and guidelines for the care of the collection, including what needed to be done to discourage rodents and reduce rodent damage to the artifacts. They also developed maintenance programmes and housekeeping procedures for the site. Park staff eliminated food sources that attracted rodents, identified their main entry points, and recommended modifications to the building required to eliminate them.

This hands-on approach to the preventive conservation of cultural resources at a site is a departure from the traditional treatment-oriented approach. The result is a cleaner, presentable site regularly maintained by site staff, who have become aware of the goals and methods of preventive conservation.

Christine Feniak is head of the Collections Care Section at Alberta Regional Office. For further information, please call (403) 292-4656.

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Caring for Collections. Washington, D.C.: American Association of Museums.

REGIONAL Catching up with the National Historic Sites



FORT LANGLEY

Fort Langley National Historic Site has seen some changes in 1994, including the opening of a new display and the introduction of more extensive school programming.

One of the fort's reconstructed structures, formerly known as the Artisans Building, has been refurbished as an employee residence. Now known as the Servants' Quarters, this building is subdivided into three apartments, each depicting the living quarters of a company employee and his family. The display allows for active interpretive programming such as period demonstrations of cooking, crafts, and other activities. Important social history themes dealing with aspects of ethnic diversity and the role of the Salish people can now be better portrayed.

Fort Langley continues to provide interpretive programming for schools throughout British Columbia and northwestern Washington state. This fall, some changes have been made in order to remain relevant to curriculum development and meet new teaching objectives. Historic themes include the gold rush era, economic activities of the Hudson's Bay Company, and lifestyles of the company servants and their families. The new programmes are designed to be more activity-oriented and rely heavily on student participation.

For further information, please call (604) 888-2822.

ST. ROCH

This spring, Parks Canada will be partnering the operation of St. Roch National Historic Site with the City of Vancouver and the Vancouver Maritime Museum. There have been over 1.4 million visitors to the site since the famous ship was made a national historic site in 1974.

The St. Roch was built in 1928 in North Vancouver. The ship was designed specifically for Arctic conditions and survived 21 summers and eight winters in the Arctic. In 1940, it combined one of its usual supply missions with a deliberate assertion of Canadian sovereignty over the Arctic. On that voyage, the St. Roch became the first ship to circumnavigate the Arctic.

In recent years, the St. Roch has become known for the public television documentary *Mission: The Northwest Passage*, which aired internationally this past spring. She is also known locally for her English- and French-as-a-Second-Language school programming. And, she is the first site in the area to actively offer programming in Cantonese, in order to meet the demands of a new market.

For further information, please call (604) 666-3201.

FORT ST. JAMES

This year at Fort St. James National Historic Site was full of new projects, most of which are propelling the fort into a new technological era. Staff are developing an internet educational kit and CD-ROM about the remarkable history of the site. The kits will be used in the British Columbia school curriculum. Staff are also developing a new tape tour to augment the fort's interpretive programme.

Although the fort is looking forward to a new entrepreneurial and technological era, some of its projects have been a little less high tech: this summer, lawn mowers were displaced from their work at the historic grounds by steer mowers.

For further information, please call (604) 996-7191.

FORT RODD HILL & FISGARD LIGHTHOUSE

Attention at Fort Rodd Hill and Fisgard Lighthouse National Historic Sites has been focused on the deteriorating lighthouse masonry.

An investigation of the Fisgard Lighthouse by Innovative Structural Preservation Ltd. of Victoria revealed water was penetrating the tower walls, allowing the growth of mosses and lichens. The plaster coating of the lighthouse tower had lost its bond with the tower in many places, and

HIGHLIGHTS

various levels of water and salt damage were evident in many places.

Restoration work went on through the summer. Roof seals to the keeper's dwelling were improved. Other openings, such as windows and doors, were recaulked. The structure was cleaned to remove all mosses and lichens, and minor repainting prepared the surface for a new protective coating that is elastomeric and dynamic.

The work to the lighthouse tower itself was more involved. Poorly bonded parging was removed and replaced with a compatible material. Cracks were repaired and the surface cleaned of all organic growth. The tower was coated with the same elastomeric paint as the dwelling.

Fisgard Lighthouse was designed to stand for 100 years. Now in its 134th year of operation, the lighthouse has been helped to shine its guiding light into the next century.

For further information, please call (604) 363-5933.

BAR U RANCH

For the past two years, the University of Calgary and Parks Canada have cosponsored an Archaeological Field School at Bar U Ranch National Historic Site. During the summer of 1994, a total of 26 students from disciplines such as archaeology, anthropology, history, geography, management, and fine arts enrolled in the field school. They participated in the excavation of the site and conducted archival, museum, community, and library research on a number of topics relating to various aspects of ranch life.

In an attempt to find alternative ways of funding the field school, two new programmers were initiated this year. The ranch offered a two week Mini-University Course for high school students, and a Volunteer Programme for adults. The Volunteer Programme was designed to provide members of the public an opportunity to participate in the excavation of a historic site. This initiative, founded by Parks Canada and a STEP (Summer Temporary Employment Programme) grant from the U of C, attracted over 45 people with an interest in either archaeology or the Bar U Ranch.

For further information, please call (403) 395-2299.

GULF OF GEORGIA CANNERY

Cultural resource conservation is a crucial and on-going issue at Gulf of Georgia Cannery National Historic Site.

The Herring Reduction Plant within the site contains a rich mixture of resources that commemorate Canada's industrial heritage. From 1940, the Reduction Plant operated to reduce herring into oil and meal products, and equipment associated with both functions is resting in situ since the plant shut down in 1979.

Emergency stabilization of the herring reduction plant was carried out in 1988–89 to restore the machinery that was in worst physical condition or which was known to contain contaminants. Further work will be carried out this year, and in the future, to continue preservation efforts.

Treatments must have long-term effectiveness to ensure continued resource protection. Testing of proposed treatments will be carried out and monitored over winter months at the Cannery to determine the best approach to maintain site resources.

For further information, please call (604) 664-9289.

ROCKY MOUNTAIN HOUSE

Rocky Mountain House National Historic Site has been focusing on communicating its research findings to the public.

To the average visitor to the site, the buried cultural remains are invisible and the meaning and value of the remains not obvious. Interpretation based on archaeological and historical studies helps create public understanding and appreciation for the historic site, its archaeological resources, and its nationally significant history.

The recent archaeological study at Rocky Mountain House (see story page 5) is an effective joint project between archaeologists and communication staff. Early in the planning of research, a multi-disciplinary team, including presentation experts, created a communication strategy that answered the following questions: What should be communicated and at what stage of the project? Who are the audiences and who should present to each? What resources are required? How will communication success be measured?

Perhaps the most important legacy of this project is the mutual respect and cooperation between archaeologists and site presentation staff. This cooperative spirit has led to other joint efforts, like the preparation and presentation of a paper at the 1992 Chacmool Conference on Native Cultures, for which two site communicators received Canada 125 Awards.

For further information, please call (403) 845-2412.



The Separator Room at Gulf of Georgia Cannery

Percherons at the Bar U Ranch



Miles and miles of world-class horses: By 1914, George Lane had about 300 brood mares at the ranch and was getting 100 new foals a year

- continued from page 1 -

Stavely, and Claresholm. Foothills ranchers were being cut off from their summer range by a broad band of settlement. Ranching operations had to be intensified if they were to remain successful. Hay pastures had to be fenced and irrigated where practical, and the slow process of improving herd quality through selective breeding had to be pursued. Such changes involved both capital costs and ongoing expenditures on a larger labour force. It must have seemed highly unlikely that such investments would be profitable given the prevailing prices of beef.

Breeding and rearing purebred horses, although it required all the expensive innovations outlined, produced a product of much higher value. By producing superb draft horses for incoming farmers, Lane turned a threat into an asset; it was a brilliant and courageous example of business foresight.

His foray into horse breeding could not have been better timed. The infrastructure of the Canadian West was put in place during the two decades preceding World War I, and it was the countless teams of draft horses that provided the power that underwrote the transformation. Every mile of railway track leveled and every road improvement required horse power, while circulation and distribution within the growing towns and out into their service hinterlands was all handled by horse-drawn vehicles. There were 226 000 horses in the new province of Alberta in 1906, and 828 000 by 1921. Lane enjoyed a decade of booming markets and rising prices (Government of Canada 1921: 21).

The growing popularity of the Percheron breed was based on the strength and character of the animals and on their ability to exhibit exceptional powers of endurance while coping with poor diet and inclement weather. The hardiness and versatility of the breed impressed all those who came into contact with the horses (Nor'West Farmer). Moreover, the Percheron stallion possessed another quality, which was less obvious, but paid even greater dividends: he crossed well with almost any kind of mare. A common mare bred to a Percheron stallion would produce large, strong colts that would be sold for \$30-40 more per head than the progeny of a common sire (Dinsmore 1917).

The Bar U Percherons were consistent winners at stock shows, providing Lane an excellent opportunity for sales. Buyers from the United States were frequent visitors at the ranch, and at least one stallion was sold to Japan. However, it was the shipment of Percherons back to Europe that gave Lane his greatest satisfaction. Twenty-six mares and one stallion were shipped in 1918, and a larger shipment of 53 horses, including stallions Perfection and Paragon, followed a year later. After their arrival in Britain, Perfection and Paragon won the first and second prizes in their class at the Royal Show. These exports provided an important foundation for the development of the Percheron breed in Britain.

While much of the international reputation of the Bar U Ranch during this period derived from its role as the pre-eminent breeding centre of Percheron horses, this success must not blind us to the fact that the Bar U maintained its primary function as a cattle ranch throughout the same period. While raising Percherons, Lane maintained a herd of 4 000–5 000 cattle. The Montana cowboy had developed into a confident and shrewd businessman: rancher, horse breeder, farmer, industrialist, and real estate speculator. Unraveling his varied interests will take more research, but he is a worthy and fascinating subject for study.

Simon Evans is a professor of geography at Memorial University, Newfoundland. He completed a PhD thesis on the Alberta ranching industry at the University of Calgary in 1976. In 1992, he took a two-year leave of absence to return to Calgary and work as the official historian for Bar U Ranch National Historic Site. He has since returned to his university in Newfoundland. Research Links, on behalf of Parks Canada staff fortunate enough to have worked with him over the last two years, bids him a fond farewell.

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A New Cultural Resource in the Yukon

Parks Canada has taken on the management

of a BAR-1 DEW Line station

David Neufeld

The Yukon and western Arctic District offices of Parks Canada, the MacBride Museum, and the Yukon Archives are cooperating in the preservation, collection, and commemoration of the BAR-1 Distant Early Warning (DEW) Line station in Ivvavik National Park in northern Yukon. The Alaska State Historical Preservation Office is also involved in work on similar sites. This work is jointly funded by Parks Canada and the LEGACY programme of the United States Air Force.

The BAR-1 DEW Line radar station near Komakuk Beach finally shut down last year after some 40 years of service, and was replaced by a new unmanned North Warning station. The defunct station will soon be a part of Ivvavik National Park, as suggested by the recently completed Ivvavik National Park Management Plan. Negotiations on the scale and character of the cleanup of the old station site are presently underway. Part of this clean-up process is the preservation of selected elements on site and the creation of a permanent record of the site's purpose and history.

Using the new Cultural Resource Management Policy, Parks Canada staff developed a comprehensive programme to identify the site's values and determine how these could best be preserved and protected. The programme has two basic objectives: to preserve and commemorate the existence of the identified cultural site and related activities; and to develop and record the process of its preservation and commemoration.

The preservation activities of the programme are extensive. Selected elements of the station will be retained as permanent landscape and physical features of the site. These include the station's gravel pad and various dikes and foundation materials identifying the footprint of the station. Work with the Alaska State Historical Preservation Office will ensure a coordinated approach to the preservation of site elements in Yukon and Alaska.

Parks Canada collected selected artifacts on site, which will be added to the MacBride Museum's permanent collection. The artifact selection was based upon four representative themes: station operations, support services, social life, and northern entry and impacts.

Yukon Archives will hold a number of documentary collections gathered at the site, including the United States Air Force DEW Line operating and technical records, the ITT contractor's operational and training records, the files of the employees' recreation committee, and records of the International Brotherhood of Electrical Workers' Union.

Yukon Archives will also hold an artistic record, created by a Parks Canada–contracted photographer. The record presents the site as a landscape feature, staff in the working environment of the station, and the elements of the physical structure of the station. Some 600 negatives, transparencies, and associated prints make up this indexed collection.

The preservation element of the programme is completed by a research record created by Parks Canada staff, which includes bibliographic material, archival files, record photographs, and field notes made on site.

The commemoration portion of the project encompasses minimal on site interpretation signs by Parks Canada; publication by Parks Canada of an illustrated contextual history of the DEW Line and its effects on Canada; a catalogue of archival collections, artwork, and artifacts; and an exhibition of photographs in the Yukon Arts Centre Gallery. Planning and development of a traveling exhibition utilizing the collected materials to reflect on the Cold War period in Canadian history is anticipated in future years.

Parks Canada is also preparing an illustrated final report describing the cultural resource management process developed to deal with the site. The report will describe the issues raised by the site's stakeholders and the methods used to meet expressed concerns. This work will reflect Parks Canada's mandate and legislation and provide an example for the United States Air Force and other Canadian and American military bodies of a possible shutdown procedure for obsolete military facilities.

Future work on the site will be carried out by a continuing partnership between Parks Canada, the MacBride Museum, and the Yukon Archives.

David Neufeld is a Yukon and western Arctic historian at Yukon District office. For further information, please call (403) 667-3913.



A Monument to the Cold War: This DEW Line station is part of our cultural history

Perplexing housepits in Banff:

Martin Magne

Circular depressions of obvious human origin have been known in Banff National Park since 1913, when they were first recognized on the site of the Banff Springs Golf Course (Smith 1914). There are now six such sites on record in Banff, distributed along the Red

Deer and Bow River drainages. Housepits are characteristic of the salmon-dependent cultures of the Interior Plateau of British Columbia, Washington, and Oregon. In Banff, the known depressions are usually no more than four metres in diameter and a metre or so deep, occurring at archaeological sites in small groups of less than a dozen, and sometimes in isolation. In British Columbia, village sites with hundreds of pits extending

over a kilometre or more are known, and some pits may exceed 20 metres in diameter and three metres in depth. Clearly, the Banff pits are related, but different.

This past summer, Parks Canada staff recorded a housepit site at the headwaters of the Red Deer River near Drummond Glacier.

STARTLING DISCOVERIES AT FORT LANGLEY

The Hudson's Bay Company established the first Fort Langley in 1827 and operated there until 1888 when the land and few remaining structures were sold. A small portion of this land was deeded to the federal government in 1924; after additional land assembly, Fort Langley was established as a National Historic Site in 1976. The principal themes associated with this designation concerned the Hudson's Bay Company's activities.

Archaeological excavations at the fort began in 1956, well before Parks Canada involvement commenced in 1970. In recent years, Parks Canada archaeological units have been supplemented by joint field schools headed by Stan Copp of Vancouver Community College. Capilano and Douglas Colleges have also participated in these field schools.

The results of the 1992 excavations at Fort Langley were quite unexpected. The main purpose of the surveys conducted that year was to shed light on three aspects of the fort: the cooperage reconstruction site; the sale room and adjacent building; and the manager's residence. Excavations from these sites revealed cultural remains over 8 000 years old, as well as some more recent finds.

The prehistoric components at the sale room site, found 90 centimetres below the surface, were the most startling. The charcoal samples found there, in association with a partially split cobble core, core remnants, and flakes, were dated at approximately 8 400 years before present, making this the second oldest recorded occupation site in the lower Fraser Valley. From a scientific and interpretive perspective, Fort Langley represents not just an important fur trade site, but a valuable and unique archaeological resource.

For further information, please contact Alberta Regional Office's Archaeology Division at (403) 292-6472.

The site had been known to Banff wardens for some time, but because the location had been used as a geologists' and outfitters' camp, they thought the big depressions in the area were created by geological explorations. Archaeological Services started a small test excavation in one of the depressions and at first thought they had stumbled upon the geologists' garbage pits: the top layers of the

"Why would such pits be present on the eastern slopes, and who might have left them? If these pits are indeed house structures, why are they so small?" depression contained burnt plastic and an aerosol can. Further excavation revealed stone tools, charcoal, bone, and burnt soil. At the bottom of the pit, at about 75 centimetres, a series of complex "floor" layers was revealed. The pit also exhibited a very obvious internal "platform," much like larger housepits do.

The internal structure of the pit, and the cultural materials it contains, are almost entirely in keeping with what was excavated by Daryl Fedje at

another housepit site (found to be 1860±20 years old) along the Red Deer River at Divide Creek.

A pattern is now apparent, consisting of the following elements:

- Banff contains a series of cultural depressions sites that are unusual on eastern slopes;
- The sites are distributed along the two main drainages of the park;
- The sites contain depression features that are much smaller than the norm for British Columbia; and,
- The features contain cultural layers and artifacts that are indicative of use as houses rather than as storage or cooking facilities.

Several questions come to mind immediately: Why would such pits be present on the eastern slopes, and who might have left them? If these pits are indeed house structures, why are they so small? We know that the closest people who made and used semi-subterranean houses are Shuswap from interior British Columbia. The Kootenay people's principal ethnographer, Harry Turney-High (1941), notes his informants flatly denied using them. The depressions seem too small to have accommodated entire families. The one tested at Drummond Glacier would have an interior floor maybe two metres in diameter, and several depressions there are smaller yet. Ethnographer James Teit (1909) notes small houselike pits were constructed by Shuswap for housing women during menstrual periods. However, it does not seem in keeping with what is known of Shuswap settlement patterns that companies of women would reach beyond their "normal" range. We do know that Shuswap and Kootenay occasionally ventured across the Rocky Mountains. Turney-High writes of the Kootenay:

...In similar contrast with their Salishan neighbours, they claim to have felt no fear in crossing the mountains into Blackfoot territory. The Kutenai... never went east in the summer with less than eighty lodges, so they had no fear of Peigan or Blood, feeling that they could easily repulse any nuisance committed by them. They not only took their women, but the children as well (Turney-High 1941: 53).

It would appear entirely possible, therefore, that the housepit sites represent houses constructed by groups of men, possibly Shuswap or their ancestors, coming across the mountains to hunt.

who made them and why?

The sites cannot be attributed to any particular First Nations group, and their function is still ambiguous. Yet they remain an intriguing series of sites that demand more research for several reasons: the cross-mountain linkages are worth exploring for what they can tell us of past cultural ecosystems; some of the recorded resources are in immediate danger of erosional loss; and, we are just plain curious.

Martin Magne is chief of Archaeological Services at Alberta Regional Office. For further information, please call (403) 292-6472.

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A House pit at the Drummond Glacier site: Note the complex "floor" stratigraphy visible in the south wall

Bankhead's Staircase To Nowhere

Perry Davis

There is an impressive staircase to nowhere visible from the Lake Minnewanka Road in Banff National Park. It and the foundation, less visible from the road, represent the remains of Holy Trinity Catholic Church, which Bankhead parishioners constructed in 1908 to serve both Roman and Eastern Catholics.

No one would know any of this from visiting the site, provided

they even could find their way to it, a situation the Knights of Columbus wanted corrected. Early in 1992, this Banff society was persuaded by Anne Morrow, then manager of Historical Sites in Banff, to supply and instal an interpretive sign and to upgrade a trail to the site.

That same summer, the Minnewanka Area Plan was taking shape under the direction of Susan Haid as part of a Master's degree (in Urban Planning) project. One problem identified in the plan was the artificial division of Bankhead into the (lower)

minesite and the (upper) townsite. The Bankhead church project provided the first step towards unifying Bankhead. The church is in the perfect geographical position—midway between the minesite and townsite. The Area Plan, in its final form, incorporates the church site into a loop trail that further unifies the two sites.

It was 1994 before the interpretive sign was made for the Holy Trinity Church. By this time, the originally small and simple project got a little more complicated. First, Parks Canada had to determine whether the project met the newly formed Bow Valley Study Group's guidelines (it did). Then, an environmental assessment had to be done. In the process, two previously unnoticed areas of concern were identified.

One was a traffic problem: upon glimpsing the site from the road, motorists impulsively made their way to it and frequently parked on the side of a narrow road with limited visibility. The short-term solution was the installation of "no stopping" signs; the long-term

> solution is a landscaping plan to screen the site more fully from the road.

> The second problem was an archaeological discovery. Don Mickle, cultural heritage manager for Banff National Park, found prehistoric artifacts on a visit to the site. An assessment by Archaeological Services indicated the site was worthy of further investigation. As a result, upgrading the existing trail—which took visitors uncomfortably close to the potentially prehistoric site—was dropped in favour of upgrading a well-worn game trail that also ran to the church.

Despite the many complications, the Knights of Columbus are perservering with the project, and next summer, visitors will be able to reach the site easily and quickly from the Lower Bankhead parking lot and admire the beautiful staircase to nowhere.

Perry Davis conducted the environmental assessment on the Bankhead church project. He is a backcountry visitor experience manager at Banff National Park. For further information, please call (403) 762-1462.



The remains of Holy Trinity Church

Discoveries on the Pacific Coast

Parks Canada work with Haida and Ditidaht bands yields valuable finds

Ian Sumpter

OVERVIEW

As one of many federal land managers in Canada, Parks Canada plays a significant role in the protection of cultural heritage under its jurisdiction. In British Columbia, recent land use agreements and business plans between Parks Canada and First Nations have been successful in fostering cooperative partnerships in natural and cultural resource protection.

This year saw a

continuation of collaborative training programmes in cultural resource protection and stewardship between Parks Canada's Archaeological Services in Calgary and two First Nations groups whose traditional territories lie within the boundaries of Gwaii Haanas and Pacific Rim National Park Reserves. In concert with Millennia Research of Sidney, BC, field training in 1994 focused on aspects of coastal survey techniques, archaeological excavation, theory, and cultural resource management.

GWAII HAANAS

The 1994 Gwaii Haanas Haida Heritage Site and National Park Reserve Archaeology Programme comprised three projects: the continuation of the park reserve's archaeological inventory programme; paleoenvironmental reconstruction research; and exploratory excavations at two threatened Early Period intertidal lithic sites.

The programme's inventory component represents year four of a five-year coastal survey producing base-line data required for the management of Native and non-Native archaeological sites within the Haida Heritage Site and Park Reserve. The field element was approximately two months in duration and encompassed the area from Nagas Point to Tasu Head on the west side of Moresby Island. A Haida archaeological team lead by Bert Wilson conducted the



Preserved basketry recovered from Nitinat Lake shoreline excavations

BC. This multi-year research programme includes selective investigation of terrestrial marine transgression features and other postglacial land forms as well as marine paleoecology. This component will attempt to correlate known archaeological site location data for the Gwaii Haanas coastline, especially the *ca.* 9 000 year-old intertidal archaeological site distribution, with marine geological data recovered by PGC in

1993 and 1994. Such correlation should help predict where submerged (pre-9500 year-old) archaeological sites may be found.

The third Gwaii Haanas archaeology project involved exploratory archaeological investigations at two Early Period intertidal lithic sites in the Darwin Sound area-Richardson Island and Echo Bay. Both sites received controlled surface collecting and limited subsurface testing programmes. Although detailed analysis has yet to be

inventory. Millennia's Al Mackie provided direction and training services throughout the field and post-field stages. The 1994 survey documented at least 39 new archaeological sites and revisited approximately six previously recorded sites.

The second component of the project included paleoenvironmental reconstruction research by Parks Canada's coastal archaeologist Daryl Fedje, in conjunction with Pacific Geoscience Centre (PGC) at Sidney, completed, preliminary research indicates the sites were occupied at *ca.* 9 300–9 200 years before present, during a time of rapid sea level change.

PACIFIC RIM

At Pacific Rim National Park Reserve, Archaeological Services supported a number of cultural resource management activities during 1994, including impact assessment of facility improvements in the Broken Group and Long Beach units for potential resource conflicts, and revisiting threatened archaeological sites on the West Coast Trail. Field and post-field support came from Ditidaht Band cultural resource officer trainee Fred Seiber and his assistant Frank Knighton.

Archaeological Services assisted the Ditidaht Band in the completion of two additional endeavours: an "Access to Archaeology" project on their Tsuquanah and Iktuksasuk reserves, and a ground-truthing component of a Geographical Information System–based model that predicts the occurrence of culturally modified trees. The band's "Access to Archaeology" project was conducted under the direction of Millennia Research's Morley Eldridge, and gave Seiber and Knighton a 12-week training opportunity on archaeological methods through recovery of eroding material culture from three pre-contact shell midden sites. Exca-



Cooperative endeavours: Excavating a threatened site on Nitinat Lake

vations at two midden sites have revealed an assortment of significant and perishable artifactual data (traditionally made basketry, matting, twine, bone and wood points, shell implements;), fish weir remains, and botanical and faunal materials that are being lost to severe wave erosion arising from powerboat wash on Nitinat Lake.

Ian Sumpter is an assistant coastal archaeologist based in Victoria. For further information, please call (403)292-6472.

PODIUM



Replacement vs. Repair



Janet Gourlay-Vallance

The cultural resources and artifacts we care for should last a long time. We may hope the life span of our artifacts is unending, but the conditions under which many Parks Canada cultural resources—especially historic structures—spend their days preclude this. Throughout their life, they will suffer from being left in the rain and snow, instead of being housed cosily in an environmentally controlled case. Inevitably, part of the structure will rot or tragically break, and suddenly it's... replacement *versus* repair time.

It is mandated by the Cultural Resource Management Policy that repair is best. Why, then, do we even consider replacement?. Replacement is usually considered when rot is the problem. Let us look at the all too frequent example of an historic log building with a rotten bottom log. Adhering strictly to Cultural Resource Management policies, we will want to patch the historic fabric instead of replacing it. Unfortunately, this does not solve the problem. The water that caused the damage in the first place will continue to fall; the log will continue to rot; and it will continue to be repaired until finally, it will have to be replaced. Other historic fabric associated with the replacement procedure, such as wall boards, may be destroyed.

Before all this takes place, it is prudent to ask ourselves what type of intervention does the long-term integrity of the building really require. Is there another option? Sometimes, when faced with the replace or repair dilemma, we should consider a simple reversible modification of the structure. In the case of our rotting bottom log, we know water is the root of all rot. We may add removable rain gutters or shielding pieces to keep historic fabric dry and prevent rot. This type of intervention is most likely temporary; technology is advancing very quickly in the area of conservation. If the structures can last another 100 years, many new products will be available to help them on their journey through time.

If a small reversible modification is not an option for the structure—and in many cases, it is not—only then we should consider the installation of a sacrificial bottom log, replacing this sill on a 20–30 year rotation. We can then plan to remove and replace all of the pieces involved with the replacement of the sill log. The activity of replacing the sill log becomes very expensive cyclical maintenance; this is why we should always consider other alternatives. The ultimate question we have to ask ourselves when faced with the repair *versus* replacement dilemma: "What activity will produce the most intact historic material remaining in the long run?"

It may be repair, it may be partial replacement, or it may be neither, as is the case of rotting bottom logs. Getting bogged down in the replacement *versus* repair debate may prevent us from choosing the best alternative.

Bob Grill is acting chief of Heritage Resource Management at Fort. St. James National Historic Site. For further information, please call (604) 996-7191. Protection of national cultural resources within our modern, disposable society requires strong ideals, one of which is a "repair ethic." Our first approach, if the resource is not under threat, is to leave it alone. However, we are rarely in that position. A repair ethic is important when managing cultural resources for two reasons: it acknowledges the value inherent in the original, and helps us foster the essential attitude of care towards our cultural resources.

The original artifact, building component, or building itself holds essential clues to the stories the resource has to tell. These clues are found in the artifact's materials, tooling, technology, and craftsmanship. They tell stories of economics, lifestyles, and priorities of the people who manufactured the resource. These stories must be available for future generations and must be protected. A repair ethic allows for future research and documentation. With replacement, an oft-quoted alternative to repair, the original fabric and its stories are lost forever.

The original building material and components are also valuable for the character they imbue. Each cultural resource, be it a designated building or an historic site or monument, has a definite character in need of preservation. The qualities that define its character are most likely found in the elements of the resource; the material, the massing and design, and the craftsmanship. If the elements are compromised through replacement, the heritage character or historic value of the resource will be diminished. In acknowledging and respecting the value of the original, a repair ethic will better protect and preserve the elements from being irreversibly altered or removed.

The repair ethic also fosters other important attitudes. With knowledge of the time and effort necessary for repair work, cultural resource managers will realize quickly the benefits of ongoing maintenance. The routine and cyclical maintenance of a resource is the cornerstone that mitigates wear and deterioration. Repair also connotes minimum intervention. We repair only what is broken, rotted, deteriorated, or missing. In that light, it is misguided to spend extra time, effort, and material on aspects that are not in need of fixing. This is an important yet difficult attitude to bring to our work. It is a human quality to want to improve, make better, and present one's work in the best light. Repairing and minimum intervention remind us, however, that this is not our mandate as cultural resource managers. Ours is not to decide what elements should or should not be kept or what constitutes improvement. Ours is to tread softly, treat our resources with care, protect their integrity, and thus ensure our grandchildren will enjoy and learn from them.

Alternative approaches do not make allowance for the complex and meaningful nature of our task: the preservation of our heritage for now and the future. Repair it—do not replace it.

Janet Gourlay-Vallance is a restoration architect at Alberta Regional Office. For further information, please call (403) 292-4502.

MEETINGS OF INTEREST

- February 3–4, 1995 Northern River Basin Study Forum. Grande Prairie, AB. This third annual science forum will focus on hydrology studies from the Peace, Athabasca, and Slave river basis. Tel: (403) 427-1742 or 1-800-267-6727.
- February 23–26, 1995 Fourth Prairie Conservation and Endangered Species Workshop. Lethbridge, AB. The workshop's theme is "Sharing the Prairies: Sustainable Use of a Vulnerable Landscape." Contact the Institute for Renewable Resource Management, Lethbridge Community College, 3000 College Drive South, Lethbridge, AB. T1K 1L6.
- March 7–9, 1995 Environmental Monitoring and Assessment Programme Symposium. Chapel Hill, NC. The symposium will focus on monitoring themes related to design and sampling intensity issues, integrative indicators, and landscape characterization. Contact Tom Waddell, EMAP Center (MD-75), U.S. EPA, Research Tringle Park, NC. 27711. Tel: (919) 541-2957, Fax: (919) 541-3615, e-mail: waddell.thomas@epamail.epa.gov.
- April 17–21, 1995 Eighth Conference on Research and Resource Management in Parks and on Public Lands. Portland, OR. This year's topic is "Sustainable Society and Public Areas: Challenges and Issues for the Perpetuation of Cultural and Natural Resources." The society is seeking papers and posters for presentation. Contact the George Wright Society, P.O. Box 65, Hannock, MI. 49930-0065. Tel: (906) 487-9722, fax: (906) 487-9405.
- May 8–10, 1995 Planning for a Sustainable Future: the Case of the North American Great Plains. Lincoln, NE. This symposium is sponsored by Environment Canada, NOAA, and the University of Nebraska. Contact Ross Herrington, Head Adaptation and Impacts Section, Environment Canada, 2365 Albert Street, Room 300, Regina, SK. S4P 4K1 Tel: (306) 780-5313, fax (306) 780-5311.
- May 23–25, 1995 Symposium on Measuring and Monitoring Forest Biological Diversity. Washington, DC. Co-sponsored by the Smithsonian Institution and the Man and the Biosphere Programme, this symposium's theme is "Use of Forest Biodiversity Plots." Contact Dr. F. Dallmeier, Chair, Symposium Planning Group, 3123 1100 Jefferson Drive S.W., Washington, DC. 20460. Tel: (202) 357-4793, fax (202) 786-2557, e-mail: ic.fgd@ic.si.edu.
- June 15–19, 1995 American Society of Ichthyologists and Herpetologists, American Elasmobranch Society, and Herpetologists League. Edmonton, AB. The conference will include symposia and presentations of papers. Contact Joseph S. Nelson or Mark V. H. Wilson, Department of Biological Sciences, the University of Alberta, Edmonton, AB. T2G 2E9. Fax: (403) 492-9234.
- July 16–21, 1995 10th International Conference on Bear Research and Management. Fairbanks, AK. Contact Harry Reynolds, Department of Fish and Game, 1300 College Road, Fairbanks, AK. 99701-1599. Tel: (907) 452-1531, fax: (907) 452-6410.
- August 12–16, 1995 Second International Martes Symposium. Edmonton, AB. Sessions will deal with marten, fisher and sable populations, landscape ecology, timber harvests, fire effects, and more. Participants are invited to submit an abstract before January 31, 1995. Contact Gilbert Proulx, Alpha Wildlife Research and Management Ltd., 9 Garnet Cresecent, Sherwood Park, AB. T8A 2R7. Tel: (403) 464-5228.
- October 18–21, 1995 Canadian Coastal Conference. Dartmouth, NS. The conference is hosted by the Canadian Coastal Science and Engineering Association and its theme is "State of the Coast: Monitoring and Prediction." Organizers are soliciting papers and the deadline for abstracts is February 15, 1995. Contact Steven M. Solomon, Atlantic Geoscience Centre, Bedford Institute of Oceanography, P.O. Box 1006, Dartmouth, NS. Tel: (902) 426-9459, fax: (902) 426-4194, e-mail: solomon@agc.bio.ns.ca.

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