

CANADIAN
CONSERVATION
INSTITUTE



INSTITUT
CANADIEN DE
CONSERVATION

Annual Report

2000-2001



Canadian Heritage
Patrimoine canadien

Canada

CCI Mission Statement

"We are committed to preserving Canadian heritage and supporting conservation and heritage institutions in Canada by creating and disseminating conservation knowledge and providing expert services."

We ensure client satisfaction through:

- providing high-quality, reliable advice, assistance and information on:
 - new conservation knowledge and practices
 - care of collections and preventive conservation
 - treatment of artifacts and works of art in Canadian museums, art galleries, archives and libraries
 - materials or condition of heritage objects to improve the understanding of collections
 - museum facilities and planning
- collaborating with regional, provincial, territorial, national and international cultural communities, institutions and related agencies including conservation associations and the private heritage sector

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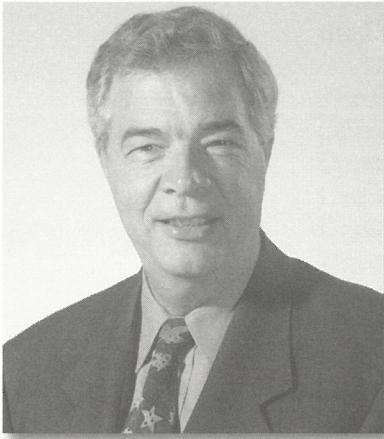




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Introduction



In the unpredictable environment of the information age, the ability to manage change effectively is fundamental to survival. And nowhere is this need more apparent than in the field of conservation, where change continues to be one of the few constants. Digital technology and new media, where conservation problems are not (as yet) clearly understood, present daunting challenges. Other emerging issues include repatriating First Nations collections, preserving the varied collections of a multicultural society, and dealing with aging cultural buildings. All of these place increasing stresses and strains on a heritage community that is already dealing with budget deficits and many competing pressures for funding.

CCI has responded to this need to manage change by rethinking the business we do and how we do it. Following a major structural reorganization, we are now more streamlined and productive with a clear focus on knowledge generation and client service. We have expanded our horizons into new areas and developed new clients for our services and products.

CCI has always embraced both conservation treatment and scientific research. By building on this multidisciplinary approach, we are producing results that are a credit to both professions and of real use to the conservation world.

As a knowledge-based organization, it is important that our activities match the requirements of our clients. To ensure that we understand the needs and priorities of the heritage community we conduct formal and informal consultations with them. In response to their feedback we

have updated our research directions and provided enhanced services. One excellent means of communication is our Web site (www.cci-icc.gc.ca), visits to which have risen dramatically and show no signs of slowing. Users of the site have easy access to CCI through the "Contact Us" button, ensuring a steady two-way flow of information.

In the face of reduced funding over the years, we have had to generate more revenue through the provision of more service. By accepting conservation work from non-traditional clients on a cost-recovery basis, we have strengthened our capacity to provide needed services to mandated clients, Canada's not-for-profit heritage institutions. Another means of compensating for reduced funding has been to find partners for collaborative scientific and technical research and analysis.

As we seek to manage change, it has also been necessary to build a firm basis of public support and awareness. This underlines the commitment of both CCI and the Department of Canadian Heritage to ensuring that Canada continues to have the capacity to care for its cultural heritage and that all Canadians have access to it today and in the future.

This Annual Report highlights some of our recent successes in the quest to manage the changing conditions of the new millennium.

A handwritten signature in black ink, appearing to read "Bill Peters", with a long horizontal flourish extending to the right.

Bill Peters
*Director General and
Chief Executive Officer
Canadian Conservation Institute*

Overview of CCI

Organization

The Canadian Conservation Institute (CCI) is a Special Operating Agency of the Department of Canadian Heritage.

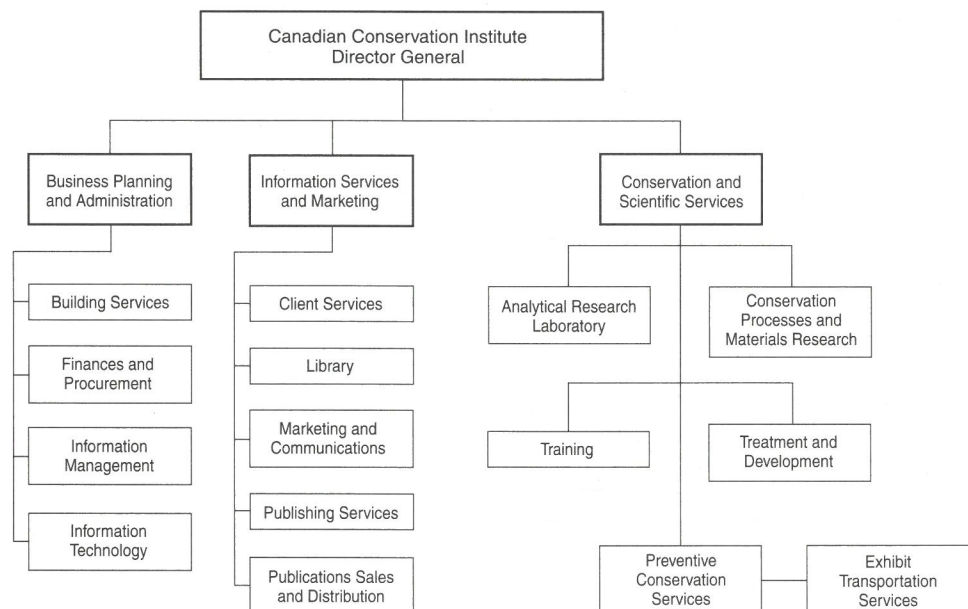
The Director General (Chief Executive Officer) of CCI is accountable to the Deputy Minister of the Department of Canadian Heritage through the Assistant Deputy Minister, Arts and Heritage. The Director General has the same level of delegated authority as the Assistant Deputy Minister with regard to a number of financial, administrative, and human resources responsibilities.

CCI's key decision-makers are the members of the Management Committee, i.e. the Director General, three Directors, and four Managers within the Conservation and Scientific Services Directorate. The Committee's main focus is corporate decision-making and medium-term strategic planning while supporting the Director General in long-term strategic planning.

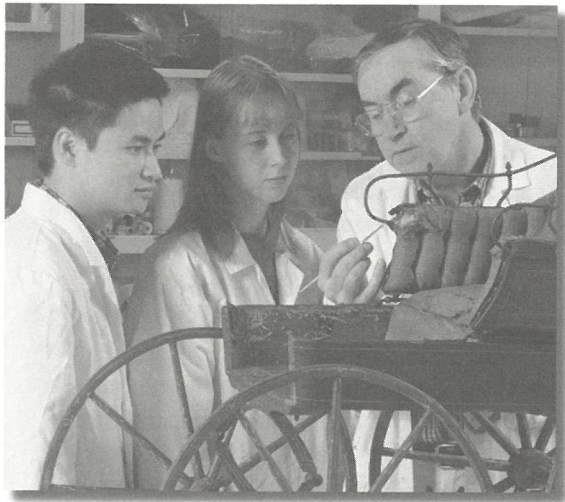
Strategic Objectives

The strategic objectives of CCI are underpinned by, and consistent with, the goals of the Department of Canadian Heritage:

- diverse and accessible Canadian choices: Canada's cultural diversity, linguistic duality, and shared values are reflected to Canadians through all forms of expression
- excellence in people: strength in diversity and excellence in creativity, innovation, performance, and community leadership
- building capacity: community, institutional, and industrial capacity and infrastructure to sustain and promote Canada's cultural diversity and social cohesion
- Canadians connected to one another: Canadians and their diverse communities bridge differences and distances to deepen understanding and appreciation of each other and to build shared values



- Canadians connected to the world: Canada promotes Canadian interests and projects Canadian values throughout the world and is open to the best that the world offers
- building capacity at Canadian Heritage: the branding of the Department of Canadian Heritage as a model department and “the” place to work



CCI has been unique within the field of conservation throughout its 29-year history. By combining both conservation treatment and scientific research, the Institute has created an extensive body of knowledge and experience that has given it an excellent reputation both in Canada and abroad.

CCI internships allow conservation skills and knowledge to be transferred.

In 2000-2001, CCI established five corporate goals:

- *improve the condition of, and access to, Canadian collections held in public trust and increase the understanding of the materials in these collections and their objects*

Heritage collections are an expression of Canada’s cultural diversity and present a way for Canadians to tell their stories. Diminishing resources and a lack of awareness about preservation issues place collections at risk. This goal will help ensure that future generations have access to Canadian collections.

- *increase the quantity of useful client advice and information that enhances the knowledge, skills, and abilities of conservators and custodians of public collections*
- *increase the appreciation and understanding of preservation within the Canadian public*

The heritage community must have the knowledge, tools, and training to care for the collections it manages.

But Canada’s heritage extends beyond museums, art galleries, and archives; it includes all of the heirlooms, family treasures, and works of art in the hands of individual Canadians. These two goals will help everyone meet the challenges and shared responsibilities of protecting Canada’s heritage.

- *improve the Institute’s capacity to provide service*

CCI is dedicated to being a model learning organization with a diverse workforce and to providing an environment where staff are motivated and encouraged in creativity, innovation, and excellence. This goal fits with the Departmental objective of being a model workplace.

- *reduce CCI’s structural deficit*

To deliver services and products to clients, CCI requires not only sufficient core funding for basic operations but also strategic management of available resources. This goal will help build capacity and achieve meaningful results.

Internal Governance

The success of any organization is inextricably linked to attracting and keeping the best possible staff. During the past fiscal year, CCI developed a comprehensive human resources framework and presented it to staff. An action plan and a costing estimate for implementation were also completed. The next step will be to develop competency profiles and feedback mechanisms. This new framework will help ensure that CCI continues to have the skills and expertise to provide the best possible service to clients.

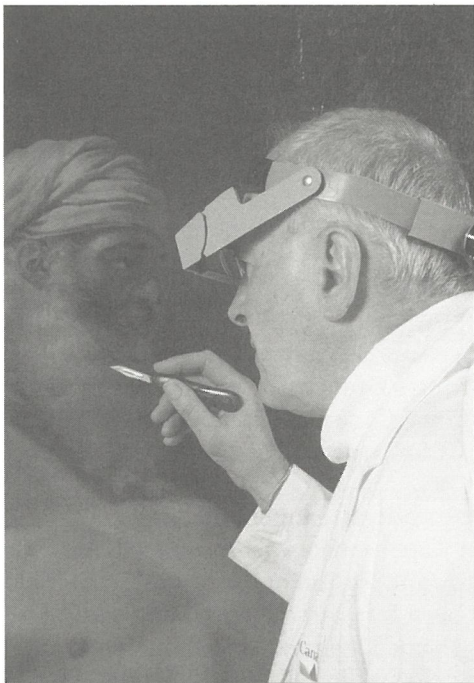
As user fees for most Canadian clients were eliminated in May 2000, CCI must now explore other revenue streams to deal with ongoing financial constraints. The move to revenue-generating activities over the past few years has created internal competitive pressures between traditional services and the need to seek out new opportunities to raise revenue. This challenge will be addressed over the course of the next few years.

Work continued on the development of simple tools to measure the cost of activities and the provision of services. This tracking of projects and activities is an important part of CCI's transition to a more business-like approach. Improvements were made in the delivery of service in both official languages and in implementing more efficient administrative processes.

CCI conducts two different staff surveys each year. In 2000-2001, the Composite Morale Index (which measures satisfaction in various areas related to the workplace) showed 86% satisfaction among staff — up from 77% in the previous fiscal year. The Composite Values Index (which measures staff satisfaction with workplace values) remained unchanged at 89% satisfaction.

Consultations with Client Groups

The work of any knowledge-based institution must be relevant and useful to its clients. To ensure that this need is met, CCI has long since established a dialogue with the heritage community.



The Institute has created an extensive body of knowledge and experience that has given it an excellent reputation both in Canada and abroad.

Formal discussions are held on a regular basis with some members of the client community, e.g. the regular annual meeting with the Preservation Committee of the Canadian Council of Archives about preservation issues of concern to the archival community, including possible areas for future research. One such consultation was held in February 2001 and the major suggestions included:

- modern information carriers
- architectural drawings
- iron gall ink
- mould
- adhesives

Similar consultations were held with the Canadian Association for Conservation of Cultural Property (CAC) at its annual general meeting in Ottawa in May 2000. After reviewing the research activities currently underway at CCI (a list of which is available on the Institute's Web site), delegates were asked for suggestions for future CCI research projects and activities. Major suggestions included:

- a greater advocacy role for CCI in increasing awareness about conservation and the role of conservators
- assistance in safeguarding the future of the conservation profession by enabling the transfer of knowledge and skills through apprenticeships and fellowships and ensuring adequate training programs and employment opportunities for new conservators
- research on iron gall ink, the stability, storage, and treatment of architectural reproductions, the deterioration of rubberized fabrics, non-aqueous deacidification spray, and the effects of residues on aging and future treatments
- analysis of the stability of digital media and of the materials used by contemporary artists

CCI also held consultations with the museum community for 2 days in October 2000 as part of early developmental work on a Canadian preservation strategy. Representatives of both large and small institutions discussed their preservation and conservation needs and the kinds of activities and programs they would like to see incorporated into such a strategy.

In March 2001, as the Queen's University Master of Conservation program marked its 25th anniversary, CCI took advantage of the gathering to solicit the views of alumni who are now working in the conservation profession. Discussions dealt with the future of the conservation profession in Canada and the kind of training/professional development activities needed to guarantee the future availability of qualified professionals.

Activities



Individual folios of the Mi'kmaq prayer book are sewn together.

Treatments

Treatment of Canada's cultural heritage collections is a key part of CCI's mandate. With more than 2200 museums across the country, the Institute receives treatment requests for objects of all sizes, shapes, and materials. Projects often require collaboration among conservators and conservation scientists

from different disciplines, and many result in the development of new and innovative approaches to conservation. In 2000-2001, CCI staff undertook even more of this highly specialized work than in the previous fiscal year.

Work was completed on a Roman Catholic prayer book written in a hieroglyphic script that is unique to the Mi'kmaqs. This rare, early volume of hymns, prayers, and religious texts was returned to the Conne River Band Council in a special ceremony at Memorial University in St. John's, Newfoundland, in June 2000.

Thirty-four canoe and kayak models were treated for the Mariners' Museum in Newport News, Virginia, over a 6-month period. The models are part of their collection of about 125 miniature Canadian canoes and kayaks, and are an important visual record of how these vessels were constructed. The project was completed and the models returned in spring 2001.

The conservation of a kayak that belonged to Sir Frederick Banting, Canada's first Nobel Prize winner for his work on insulin, was completed in August 2000. The kayak posed a number of technical challenges because of the extensive

damage to its structural elements and covering of sealskin and canvas. This complicated project became a collaborative effort in which objects conservators consulted with paintings and textiles conservators as well as several craftspeople who build canoes and kayaks.

Treatment continued on a Louis XIV dressing screen from Ontario Heritage Foundation's Fulford Place in Brockville, Ontario. Conservators in furniture, fine art, and textiles are working together to restore the screen made of painted wood and fabric.

James Barry's painting *Death of General Wolfe*, which belongs to the New Brunswick Museum, came to CCI for cleaning. The painting was then sent to the National Gallery of Canada in Ottawa where it was exhibited from December 2000 to March 2001 with Benjamin West's *Death of General Wolfe* to show different approaches to the cleaning of paintings.

Work progressed on two CCM motorized bicycles. One belongs to St. Mary's Museum in St. Mary's, Ontario, and the other to Burnaby Village Museum in Burnaby, British Columbia. These turn-of-the-century examples of Canadian manufacturing history were in a very deteriorated condition. Their treatment has resulted in new approaches to treating finishes that were industrially japanned and the discovery that metal foils can be used to replace missing nickel plating.

With the assistance of a private-sector conservator, work was undertaken on the King's Banner (the second flag that the Royal Canadian Dragoons have sent to CCI for treatment).

Conservation treatment of a flag from Kanehsatake was completed. A significant portion of the original material had been lost, but the remaining section was cleaned, aligned, and mounted onto fabric that indicated its original dimensions. This flag has been used for important ceremonies and holidays for almost a century, and holds special significance because it is unique.

A blending of expertise in the conservation of textiles and objects was employed to conserve a bisque head doll and its garments. The doll was produced by a famous French doll maker, Armand Marseille, and dates from the 19th century. Its body was made of leather stuffed with sawdust, and its head was broken and had one eye missing. A large hole in the doll's dress was repaired and the clothing was cleaned.

An antique sampler (a silk-embroidered map of Ireland executed on linen) was treated and returned to Myrtleville House Museum in Brantford, Ontario. The owners of Myrtleville House (the Goods) came from Cork, Ireland, and it is believed that Eliza Good embroidered the map in 1820.



Portions of the Kanehsatake flag are heat-set to silk crepe-line to stabilize the fragmented fabric.

One of the most interesting textiles treated this year was a boy's suit from around 1880. The suit, from the Vancouver Museum, belonged to one of the sons of Anne and Charles McCulloch Beecher who moved to Vancouver from New England in 1885 to work in the lumber business.

The silk jacket, short pants, and pleated skirt were repaired with the painstaking precision that is typical of work on small fabric items.

CCI provided advice on the recovery and restoration of a large number of religious artifacts and icons that had been damaged in a fire at Toronto's Greek Orthodox Cathedral of the Virgin Mary, Annunciation and Dormition in April 2000. To protect the icons until treatment

could be carried out, protective facings of tissue paper were applied to blistered and flaking paint.

Work was completed on a wooden scoop from Fleur de Lys Soapstone Quarries National Historic Site in Newfoundland. The scoop was probably used by the Dorset people as a cup for water or food about 500 years ago. Shaped somewhat like a banana, it is a good example of their carving skill.

Since *Symposium 2000: The Conservation of Heritage Interiors* was held in May 2000, there has been a growing focus on architectural interiors. CCI undertook assessments of several buildings and made recommendations on how to deal with a range of conditions caused by damage and wear.

The stage sets of the historic Haskell Opera House in eastern Quebec were examined and the resulting conservation recommendations will be used as the basis for applications for funding for a multi-phase conservation project.

An assessment of the condition of metal leaf ceiling finishes in the Official Residence of the Canadian Ambassador to Japan was concluded. CCI's recommendations may result in the creation of an international team to carry out the stabilization and conservation of the ceilings.

Two analyses were carried out in the Parliamentary Precinct. The first was an examination of the new furniture standard for the offices of the House of Commons. The new furniture is to be used in historic offices of the Centre Block and the Justice Building, and this standard will ensure conformity of finishes with the existing heritage furnishings. The second analysis was a survey of the materials and finishes of the interior of the Supreme Court of Canada building which was designed by Ernest Cormier in the 1930s. This site investigation was part of a larger project to set conservation guidelines within the Parliamentary Precinct and to develop an official plan for the building.

Scientific/Technical Studies and Research

Scientific discovery is the lifeblood of conservation. It is essential to the development of new knowledge and approaches to conservation practices. To advance

conservation knowledge, CCI not only carries out an active research program related to the needs and priorities of Canada's heritage community, but also conducts numerous scientific and technical studies. Before treatment proposals can be put forward and actual work started, the problems presented by the condition of the objects that

come for conservation or preservation work are first analysed and studied. A good deal of this analysis spawns research into innovative ways to handle the problems. The development of comprehensive

treatment plans often draws on the expertise of both conservation scientists and conservators in many disciplines.

To meet the need to assess Canada's capacity to manage and preserve its heritage collections, work continued on the development of a method to survey the risk to and condition of collections. This will result in a simple and effective way to tailor plans for managing cultural heritage.

The project to examine the materials and techniques of such Canadian artists as Tom Thomson, Jean Dallaire, David Milne, and Cornelius Krieghoff was ongoing.

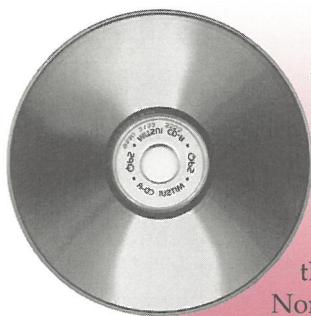
A laser cleaning project sponsored by the U.S. National Center for Preservation Technology and Training and the Los Angeles County Museum continued. Part of the investigation involves determining whether the surfaces of various organic substrates are damaged after being exposed to particular laser wavelengths. A second part consists of comparing results of cleaning of smoke-covered feathers using traditional or laser methods. Two pelicans damaged by a 1990 fire at the Royal Saskatchewan Museum were donated to CCI for these experiments.

A number of studies and projects on paper were completed. A new Canadian Standard for Permanent Paper resulted from research carried out by CCI and the



Samples are loaded in the autosampler of a gas chromatograph/mass spectrometer for analysis.

8



Of growing interest and concern is the conservation of modern information carriers (CDs, magnetic tapes, and diskettes). CCI was involved in three projects on this topic. First, in a project sponsored by the Canadian Council of Archives, the effects of water soaking and various drying methods for recovery were examined. Second, outreach seminars were delivered at libraries and archives across Canada to familiarize staff with the new media. And third, a joint pilot project with the Prince of Wales Northern Heritage Centre in the Yukon began. It involved using a portable audio work station for the digitization of 'at risk' magnetic audiotape stored in northern communities.



CCI scientists went to the Walters Art Museum in Baltimore, Maryland, to take samples of a 10th-century parchment (known as the Archimedes Palimpsest) that contains copies of seven of Archimedes' theorems related to physics. Samples were taken to analyse adhesives, identify ink, and assess mould contamination and the state of deterioration of the parchment. The results will determine how conservation treatment will proceed.

Pulp and Paper Research Institute of Canada. Experimental work was completed for the development of a new thermal accelerated aging test method for the American Society for Testing and Materials (ASTM). The results were submitted for review as efforts continue to

develop a new ASTM standard. An initial evaluation of the facilities and condition of the national newspaper collection held by the National Library of Canada was finished.

The National Archives and Records Administration of the United States asked CCI to prepare a proposal for examining the condition of the parchment of the *Constitution*, the *Declaration of Independence*,

and the *Bill of Rights*. Work is expected to begin in the next fiscal year using a technique developed at the Institute to assess such damage.

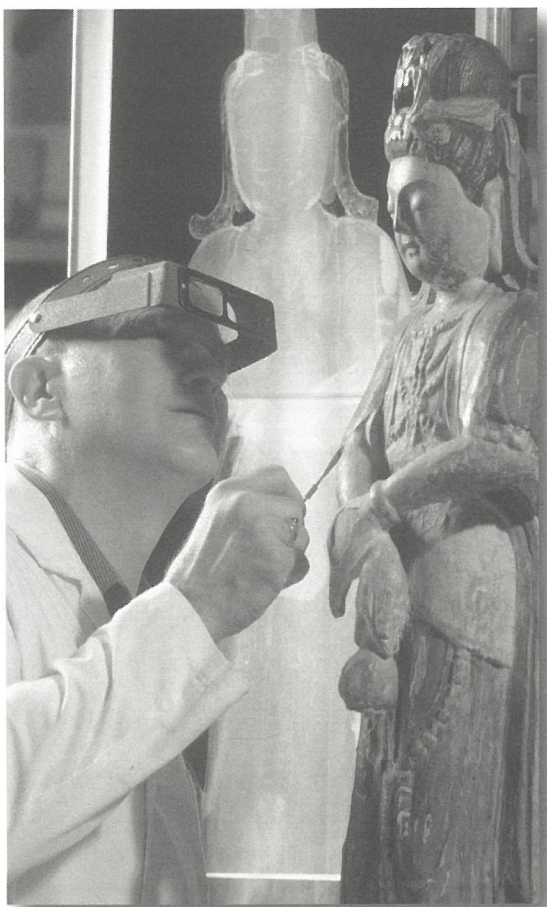
Work continued on developing a method to measure leakage from display and storage cases in heritage institutions, and also to create a machine to do the readings of the air exchange rate.

Control modules that enable precise humidity conditions to be maintained in museum display cases at a fraction of the cost of other methods were redesigned. The original design (developed at CCI in the early 1980s) involved a system of distributing air to museum cases or storage cabinets through small-diameter piping that had no air return. The new design has much higher airflow rates than the original. A prototype module is now in the test phase.

Melting in southern glacial ice fields of the Yukon has revealed a large number of artifacts made of wood, bone, antler, stone, and feathers. CCI was asked to identify the various kinds of wood used for fashioning artifacts, some of which are very well preserved. Carbon dating puts the age of the artifacts somewhere between 800 and 6800 years old. Five types of wood were identified: birch, maple, willow, spruce, and lodgepole pine.



CCI has developed design guidelines for the control of relative humidity in museums.



This Guan Yin Buddhist Deity of Compassion polychrome was radiographed (centre) before treatment began.

Scientific documentation is an important part of all conservation projects at CCI. Objects are documented upon arrival, as well as during and after treatment. Photodocumentation includes ultraviolet and infrared photography, infrared reflectography, digital image processing, and X-radiography. Among the objects radiographed during the past year were a Guan Yin Buddhist Deity of Compassion polychrome, a Chinese bronze incense burner, fasteners and nails from Fathom Five National Marine Park, and an engraving, *The*

Battle of the Naked Men, attributed to Antonion Pallauiollo.

In answer to the growing concern about the existence of pesticides in natural

history and Aboriginal collections, research into the presence of arsenic, mercury, lead, and bromine compounds in anthropological and ethnographic collections continued. This research has now expanded to include testing for the presence of organic pesticide residues. As Aboriginal collections are repatriated, the need to identify possible risks from these toxic materials is steadily increasing.

CCI was involved in the planning of a proposed new Transportation Heritage and Technology Centre in Winnipeg, Manitoba. When completed, it will bring together 16 specialized museums and heritage groups in the Winnipeg area to create a new, unified museum that showcases the development of transportation and communications technology and its impact on social history and economic development.

The development of on-site scientific testing capability continued in two areas: infrared spectroscopic analysis and the measurement of colour and gloss. Studies in the 2000-2001 fiscal year included a study to monitor ink fading on archival documents including the *Proclamation for the National Flag of Canada* (1965), the *National Anthem of Canada* (1980), and the *Constitution of Canada* (1982), colour measurement on a Canadian flag that had been on display in the Liberal Party Caucus Room in the Centre Block on Parliament Hill for the past 35 years,

Shakespeare

Scientific examination was conducted on what is reputed to be a portrait of William Shakespeare at age 39. This painting is presumed to have been done by John Sanders, about whom little is known. Although analysis of the painting materials, tree-ring dating of the wood panel, and radiocarbon dating of a paper label all support the date of 1603 on the portrait, the identity of the subject may never be clear.

and analysis (using a portable infrared spectrometer) of surface contamination on brass and copper sheet alloy sculptures at the Guggenheim Museum in New York City.

Other colour and surface research was incorporated into studies of architectural interiors for the Justice Building in Ottawa, wood and painted surfaces for the Supreme Court of Canada building, and a colour matching study for the restoration of a 1936 Greyhound bus.

Work continued on a 3 million-year-old fossilized log from the Hagerman Fossil Beds National Monument in Idaho, which belongs to the National Park Service of the United States. Stabilization treatment of this log is posing difficult problems.



A cold-extraction test is used to measure the pH of paper.

Another controversial painting, known as F 614, was also examined. This painting of cypress trees is attributed to Vincent van Gogh, but its authenticity has been the subject of debate ever since its appearance. The painting was examined not only at CCI but also by van Gogh experts in Toronto and Amsterdam. The unanimous conclusion was that it is not authentic.

The story of this painting and the examinations were documented by Riverain Productions for the Canadian Broadcasting Corporation program *Witness*. The television documentary aired in November 2000.

Research was conducted on residue and rinsing procedures for textiles. Although

water washing is one of the most effective ways to clean historic textiles, the long-term effects of adding detergents to the water are not well known (although some studies have been undertaken in the United Kingdom). Early results revealed that wool textiles on which detergents are used show loss of oil and other soluble material over time. Ways in which surfactants (surface active agents that improve the cleaning action of water by lowering its surface tension) may affect textiles were also examined.

A study was begun on the preservation of a textile impression in mud. This was CCI's first research into ephemeral or perishable materials. Knowledge in this area is necessary to analyse older archaeological sites where evidence becomes less and less tangible as the age of the site increases. With older sites currently being of great interest, this is potentially some of the most important research being conducted at CCI.

Additional research was conducted on the reconstruction of historically accurate paints. Investigative work was carried out on white paint samples to monitor gains and losses in yellowing when subjected to light and dark cycles.

Pigment samples from *Plan de fleuve*, an 18th-century map drawn in ink and water-colour on paper which is in the collection of the Archives nationales du Québec, were analysed. Other analytical work included examinations of organic accretions on objects found at the l'Anse aux bouleaux archaeological site in Quebec and of murals in the French Embassy in Ottawa which were painted in the 1930s.

Advisory and Consultative Services

The advice of CCI's conservators and scientists is sought by individuals from all over the world. Inquiries come from professional conservators, staff of Canadian museums, galleries, archives, libraries, and other cultural institutions as well as the general public, artists, suppliers of artists' materials, and government agencies.

This year CCI responded to more than 1000 requests for advice. More than one-third were submitted by e-mail through the Web site, and the others arrived by telephone, fax, or in person. Questions covered a wide variety of subjects including:

- preservation of a watercolour painting on ivory
- suitability of acrylic coatings for storage boxes
- care of a letter written by Sir Wilfred Laurier
- cleaning of an 80-year-old christening gown
- removal of overpaint from a mural in a heritage home
- safety of polyolefin film for shrink-wrapping archival material
- impact of decibel levels on a heritage building
- removal of mould from paper
- appropriate adhesives for a giant insect sculpture
- effect of cigarette smoke on archival materials
- display of a giant corn cob mural
- effect of laser light pointers on paintings
- design guidelines for the control of relative humidity and temperature in museums

CCI was also consulted on a regular basis for advice and assistance on emergency and disaster preparedness. Inquiries came from cultural heritage institutions, other government departments and agencies, and members of the public, and included topics such as how to clean mouldy documents, what to do following a fire or flood, and requests to review publications and manuscripts on disaster planning. CCI also maintained its involvement with the Interdepartmental Committee on Risk Preparedness (for the Protection of Cultural Heritage and Assets), an ad hoc committee of representatives of cultural institutions in the National Capital Region.

In addition to responding to direct queries, CCI continued to provide technical review for several programs of the Department of Canadian Heritage, including the Movable Cultural Property Program, the Canada Travelling Exhibitions Indemnification Program, and the Museums Assistance Program.

A new fee schedule was implemented in May 2000 to improve the accessibility to CCI services for Canadian non-profit public museums, art galleries, archives, and libraries under provincial, territorial, or municipal control. Most services are now provided free of charge to these heritage institutions.

To ensure that clients are satisfied with the service they receive from CCI, the Institute sends questionnaires after projects are completed. An overall satisfaction rate is attained for each client by averaging their responses to the 11 questions asked. This year, 97.8% of clients were either "satisfied" or "very satisfied" with the service provided.



*CCI provides advice and information
to individuals and organizations
all over the world.*



Numerous on-site facilities and collections surveys are conducted each year.

Site Visits

In addition to projects already mentioned, CCI staff undertook a number of site visits in Canada and the United States during 2000-2001:

Canada

- Art Gallery of Greater Victoria (British Columbia) to discuss facility development need
- Snuneymuxw First Nation Museum Committee in Nanaimo to review organizational objectives and facility options
- Kwagiulth Museum and Cultural Centre in Cape Mudge (on Quadra Island, British Columbia)
- University of Sherbrooke (Quebec) Art Gallery to discuss redevelopment plans
- National Archives of Canada in Ottawa to provide advice on storage and treatment
- Vanier (Ontario) and Chemainus (British Columbia) to examine the condition of outdoor murals
- London (Ontario) Regional Art and Historical Museum to discuss functional layout and environmental control for a proposed redevelopment project
- Greenwood Military Aviation Museum, Nova Scotia Highlanders Regimental Museum in Amherst, Maritime Command Museum in Halifax, and the Shearwater Aviation Museum (all in Nova Scotia), CFB Gagetown Military Museum and Canadian Military Engineers Museum (both in Oromocto, New Brunswick), the Prince Edward Island Regiment Museum in Charlottetown, the Labrador Military Museum in Goose Bay, Newfoundland, and CFB Cold Lake, Alberta, to carry out site surveys as part of the ongoing Canadian Forces Museums' preventive conservation initiative
- Inuit Heritage Trust in Cambridge Bay, Nunavut, to provide an overview of conservation concerns related to facilities development and collections care
- Yukon Territory to meet with several First Nations groups (Tage Cho Hudan Interpretive Center in Carmacks, the Champagne and Aishihik First Nations, the Carcross/Tagish First Nations, Kwanlin Dun First Nation, and Kluane First Nations Cultural Centre) to provide advice on capital projects with a heritage component
- Uplands Cultural and Heritage Centre in Lennoxville, Quebec, to provide advice on preventive conservation and collections care
- Saint-Eustache, Quebec, to examine a marouflage mural painting in an historic church and to identify the sources of water infiltration that were damaging the painting
- New Iceland Heritage Museum in Gimli, Manitoba, to provide advice on their storage area
- Commonwealth Air Training Plan Museum in Brandon, Manitoba, to discuss stabilization of a historic aircraft hangar and other proposed capital projects
- Costume Museum of Canada in Dugald, Manitoba, to advise on storage expansion and to discuss development of a business plan
- New Brunswick and Prince Edward Island to assist the National Research Council of Canada in making rubber moulds of ice shields on the Confederation Bridge between the two provinces
- Roche-à-l'oiseau rock art site (with the Centre du conservation du Québec) to experiment on removal of graffiti using a portable steam generation unit

- Beaverbrook Art Gallery in Fredericton, New Brunswick, to consult on environmental control upgrades
- Canadian Museum of Civilization in Hull, Quebec, to analyse Aboriginal artifacts for the presence of arsenic and mercury compounds
- National Library of Canada in Ottawa to review its collections preservation needs
- Reynolds-Alberta Museum in Wetaskiwin to review the facility's operations
- Royal Ontario Museum in Toronto to analyse objects from the Anthropology Division to detect arsenic, mercury, and lead
- MacBride Museum Society and Yukon Provincial Archives (both in Whitehorse) to advise on a variety of objects
- Royal Tyrell Museum in Drumheller, Alberta, to assist in a facility upgrade planning exercise
- RCMP Heritage Centre in Regina, Saskatchewan, to comment on planning at "The Depot" (the RCMP national training centre and home to the RCMP Centennial Museum)
- Fredericton, New Brunswick, to discuss the development of a Museum for the Malisseet First Nation and to Eel River Bar to discuss the development of a Medicinal and Aromatic Plants Aboriginal Heritage Garden
- Queen's University's Department of Art in Kingston, Ontario, to provide a session on the role and function of international museums and associated conservation organizations

United States

- James Madison's Montpelier in Virginia to advise on climate control proposals for an exhibition
- Chicago, Illinois, to provide advice to the Frank Lloyd Wright Preservation Trust on climate control proposals for the Robie House
- University of Chicago's Smart Museum of Art in Chicago, Illinois, to report on the vulnerability of the Wright furniture collection

Exhibit Transportation Services

Museums, galleries, and archives can improve the accessibility of their collections by moving their exhibitions around the country. CCI provides safe and economical moving services for heritage collections through Exhibit Transportation Services (ETS) which is run on a cost-recovery basis.

Every year, ETS trucks typically travel 500 000 km in Canada and 40 000 km in the United States, helping more than 100 institutions move between 200 and 300 exhibitions.

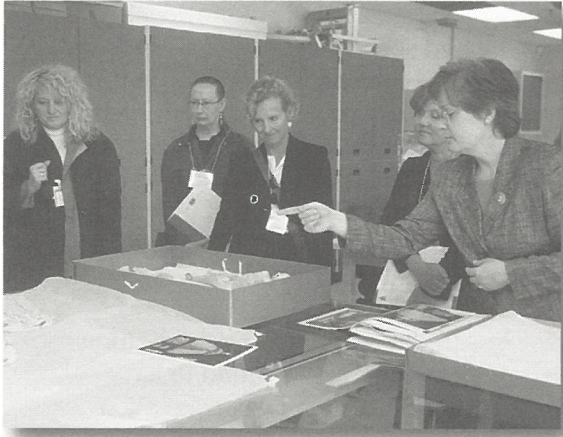
The demand for ETS assistance continued to be high during the 2000-2001 fiscal year. One major move carried out was the Renoir exhibit, which was transferred from Montreal to the United States. The Ontario TimeShip 2000 show was transported to 23 different locations during the year and it was visited by more than 101 000 people across the province.

Symposium 2000: The Conservation of Heritage Interiors

Symposium 2000, held in May 2000, was designed to provide a forum for the discussion of the preservation of heritage



ETS transports a wide range of artifacts, from fine arts to airplanes.



Symposium 2000 delegates had the opportunity to tour CCI laboratories.

interiors from the various perspectives of all members of a project team — which will often include conservators, architects, curators, planners, and heritage trades people. The main goal of the conference was to bridge the gap in

professional cultures that frequently exists in the work of preserving heritage architecture.

Presenters were selected with the assistance of an external advisory committee to ensure the program would cover heritage interiors from as many different viewpoints as possible. All the presentations stressed the importance of a comprehensive approach to projects and the examples covered successes as

well as failures. After the Symposium, some delegates indicated they would like to see future CCI presentations on specific topics in the area of built heritage. Among the topics suggested were conservation treatment processes, differences in ethical conservation approaches between North America and Europe, and protection of immovable interior elements from damage during earthquakes.

CCI hosted Symposium 2000 in co-operation with the National Gallery of Canada, the Association for Preservation Technology International, and the Heritage Conservation Program of Real Property Services for Canadian Heritage and Environment Canada. During three days of sessions, the 186 delegates from 13 countries were provided with a variety of offerings from speakers, poster exhibitors, and demonstrators. Augmenting the program were visits to heritage buildings in Ottawa and a tour of Rideau Hall (the official residence of the Governor General of Canada) where Her Excellency the Right Honourable Adrienne Clarkson hosted a reception for conference delegates.

Information Dissemination

The dissemination of information is a vital function for a knowledge-based organization such as CCI, and is an important part of the Institute's mandate.

Web Site

The CCI Web site (www.cci-icc.gc.ca) has continued to evolve and grow in popularity. The number of hits (2.6 million) this year was more than double that of the previous year and the number of sessions also showed a substantial increase. Visitors came to the site from dozens of countries around the world; the majority of users were from Canada and the United States but some logged on from as far away as Guam and Kazakhstan.

New features added to the Web site during the past year include:

- the entire catalogue of the CCI library

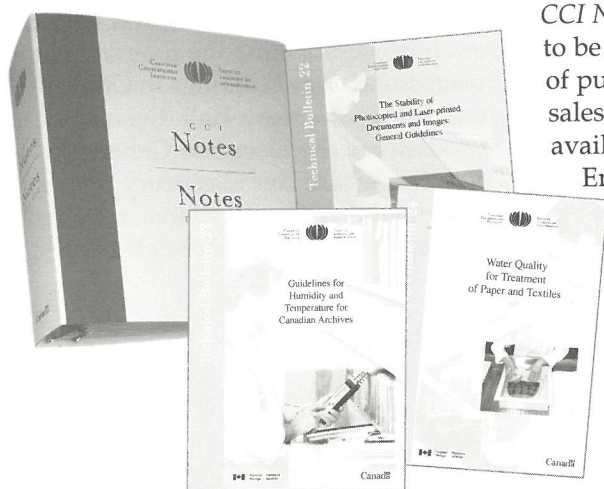
- virtual tours of the CCI laboratories
- online registration for professional development workshops held at CCI
- notification by e-mail of new CCI publications and products
- a CCI screen saver

The catalogue of the CCI library (one of the finest conservation and museology collections in the world) rapidly became the most commonly accessed section of the Web site. This online catalogue contains a search engine by title, author, subject, content, and a variety of other search fields. Users can also request inter-library loans (in Canada and the United States only) or photocopies through the Web site or by e-mail (cci_library@pch.gc.ca). In addition, the library has started to catalogue electronic resources from the Internet and, whenever possible, the online catalogue

record leads directly to the electronic copy. Further enhancements are also being prepared for the Web site, including a searchable image gallery, a discussion forum, and a section devoted to the general public.

Publications and Products

Sales of publications and products for the year totalled \$97,913 — once again surpassing the sales target. The Institute's professional publications are well known both at home and abroad, a fact that was reflected in the distribution of sales: 25% of publications sales were within Canada, 48% were to the United States, and 27% were to other foreign countries (mostly the United Kingdom, France, Germany, Switzerland, and Australia).



CCI Notes continued to be the mainstay of publications sales. Always available in

English and French, during this fiscal year the popular series was released in Spanish as *Notas del ICC*. The translation was done by

the Centro Nacional de Conservación y Restauración (CNCR) in Santiago, Chile, under the auspices of a Memorandum of Understanding with CCI. Funding was provided by the Fundación Andes.

Two new volumes (No. 25 and No. 26) of the *CCI Newsletter* were produced; both issues were posted on the Web site and more than 4000 copies were distributed. Three new Technical Bulletins were released: "The Stability of Photocopied and Laser-printed Documents and Images: General Outlines" (No. 22), "Guidelines for Humidity and Temperature for Canadian Archives" (No. 23), and "Water Quality for Treatment of Paper and Textiles" (No. 24).

To ensure that new publications are tailored specifically to client needs in terms of content, form, price, distribution method, and promotion, work began on a long-term publications and products strategy. This plan will be based on the results of a 1999 survey of individuals and organizations that had purchased or received CCI publications.

In addition to producing publications of its own, CCI was proud to have provided a section on conservation for a new Ontario Grade 9 science textbook, "Science Power 9." The article deals with electrolysis as applied to the stabilization of a cannon from a shipwreck. A chapter "Corrosion Chemistry of Gilded Silver and Copper" was also contributed to the book *Gilded Metals* (edited by Terry Drayman-Weisser) published by Archetype Publications in association with the American Institute for Conservation of Historic and Artistic Works.

Marketing

Since 1998, the Institute has been implementing a comprehensive marketing plan to keep the Canadian and international heritage communities aware of CCI services, products, and research. The marketing efforts have also been aimed at raising the level of awareness about the importance of conservation in the preservation of Canada's cultural heritage. Some of the marketing initiatives that were undertaken during the past year include:

- regular advertisements in Canadian heritage publications, including *MUSE* (the quarterly journal of the Canadian Museums Association) and the publications of 11 provincial museum organizations
- participation in trade shows at the annual conferences of the Canadian Museums Association (CMA), the American Institute for Conservation of Historic and Artistic Works (AIC), and the Canadian Association of Conservators (CAC)
- targeted mailings to the memberships of the AIC and the CMA in spring 2000

Learning and Development

Outreach Program

As part of its mandate to disseminate conservation information, CCI offers a wide range of workshops designed to promote the proper care and preservation of movable cultural property, and advance the practice, science, and technology of conservation. The development of these workshops into a module-based format is an ongoing activity aimed at providing timely, relevant, and accessible learning opportunities that incorporate local facilities and collections. The focus of these workshops is on the presentation of knowledge and concepts that are then applied through hands-on sessions in a local learning environment. In this way participants can easily transfer their new knowledge and skills directly into the workplace.

During the 2000-2001 fiscal year, CCI gave 15 workshops covering the following topics:

- modern information carriers
- display and storage materials
- preservation management for seasonal museums
- storage planning for cultural institutions
- taking care of art
- emergency and disaster preparedness for cultural institutions
- care of historical furniture collections
- current issues in UV and light deterioration
- care of textiles
- mount-making for museum objects
- ethnographic wood

Advanced Professional Development

CCI also offers week-long intensive courses for professionals working at an advanced level in the Canadian or international heritage community.



CCI interns can hone or acquire new skills.

This year *Adhesives for Textile and Leather Conservation: Research and Application* was given to about 30 professionals who came to Ottawa from other parts of Canada, the United States, Brazil, Mexico, Sweden, Estonia, Switzerland, France, Italy, and the United Kingdom. This workshop is a combination of practical conservation techniques and science. Using both demonstrations and hands-on techniques, it covers old and new adhesive treatments for backing and mounting textiles and skin or leather as well some of the most recent adhesives research at CCI. This marked the third time this workshop has been offered, and plans are well advanced to take it to the Victoria and Albert Museum in London, England, in spring 2002.

Internships

CCI offered 16 internships during the past year; 6 interns came from Canada and 10 were from other countries. To accommodate their diverse areas of study, many divisions of CCI were involved:

- Analytical Research Laboratory
- Conservation Processes and Materials Research
- Information Services and Marketing
- Learning and Development
- Preventive Conservation Services
- Treatment and Development (Objects and Textiles)



The knowledge and concepts presented in CCI workshops are applied in hands-on sessions.

The internship program was enhanced during the past year when Queen's University appointed one of CCI's scientists as an adjunct professor. This formal collaboration allows Master of Art Conservation students at Queen's to receive academic thesis supervision alongside the lab supervision provided at CCI facilities.

Other Educational Endeavours

In addition to the formal educational workshops and internships, CCI was involved in a number of other educational endeavours.

The Institute participated in the implementation and delivery of a special training program at Sir Sandford Fleming College in Peterborough, ON, by presenting an abbreviated version of their workshop "Preservation of Modern Information Carriers" to a group of James Bay Cree Cultural Co-ordinators. This specialized workshop was an integral component of a larger week-long training program *Preservation of Collections* that was designed to reflect the careful and respectful approach required when dealing with sensitive collections. There were 12 workshop participants representing nine different communities within the Cree Regional Authority (Oujé-Bougoumou, Mistissini, Nemasca, Waskaganish, Eastmain,

Wemindji, Chisasibi, Waswanipi, and Whapmagoostui) and one participant from Val d'Or (all in Quebec). The workshop was a timely and rewarding example of partnerships and collaborations in training. As First Nations Communities continue to move forward to reclaim their history and establish their own interpretation and cultural centres, CCI is proud to have been a small part of the process.

An intensive 6-day course, *Caring for Collections*, was offered in collaboration with the Cultural Resource Management Program of the University of Victoria. Taught at the University by CCI, the curriculum for this course covered preservation of collections, physical and organization factors to be co-ordinated for a safe and secure environment for artifacts, risk management and priority planning, principles and techniques of preventive care, ethical, economic, and cultural issues in collections management, and assessing the condition of objects.

CCI was also involved in a new graduate diploma program in Marine Archaeological Conservation at the Department of Conservation Studies, Evtek Institute of Art and Design, Vantaa, Finland, which is funded by the Finnish government to promote the conservation of underwater shipwrecks. CCI presented a series of lectures on "Operating an Archaeological Conservation Laboratory," "Storage, Packing and Shipping Artifacts in a Field Laboratory," and "Freeze Drying" as well as the course *Introduction to Organics*.

As part of UNESCO's International Campaign for Egyptian Museums, CCI presented a 2-week course on preventive conservation at the recently opened Nubia Museum in Aswan, Egypt. The course provided training for the young conservation staff, and included guidance in the use of the Museum's newly purchased tools and equipment. By using a digital camera, laptop computer, and computer projector, it was possible to incorporate the participants' own surroundings and heritage into the course.

Lectures on a variety of topics were also given to professional associations and conservation programs both in Canada and abroad:

- development of a comprehensive database for conservation surveys
- musical instruments as icons
- polarity between restoration and conservation of musical instruments
- promotion of local music heritage in the age of globalization
- practical solutions to conservation problems
- construction of mannequins for military costumes
- standards for levels of pollutants in museums
- mathematical modelling of pollutants in an enclosure
- dissolution rates of varnish
- non-destructive analysis of museum objects for the presence of arsenic and mercury
- analysis of museum objects for hazardous pesticide residues
- materials and techniques of Tom Thomson
- new CAC/CAPC *Code of Ethics and Guidance for Practice*
- conservation treatment of the Conne River Mi'kmaq prayer book
- status of the conservation profession in Canada
- shipwrecks and zebra mussels
- prototype treatment of complex metal windows and grills in the Bank of Montreal building
- conservation issues for outdoor murals
- conservation treatment of a kayak once owned by Dr. Frederick Banting
- scientific examination of works of art to determine authenticity and art fraud
- relatively low value placed by society on the work of the hands
- understanding the archaeological record through conservation
- the Axel Heiberg Fossil Forest Project at CCI
- the care and display of medals
- the condition of objects in time capsules and proposed methods for ensuring their longevity
- use of thread to create a strong edge finish on Tetex TR

International Presence

CCI continued to enjoy a strong international reputation through a variety of projects, training, publications, services to foreign clients, and contributions to international professional organizations.

In addition to the many lectures given abroad, CCI receives regular requests to participate in prestigious international organizations. Among the positions held and activities undertaken by CCI staff are:

- Chair of the International Council of Museums - Committee for Conservation (ICOM-CC)
- an Editor of *Studies in Conservation* (the journal of the International Institute for Conservation of Historic and Artistic Works)
- member of the first International Working Group Meeting on Developing Postgraduate Curricula for Conservation Scientists (CURRIC) held at the International Centre for the Study of the Preservation and Restoration of Cultural Property in Rome
- recipient of funding from the Canada-France Agreement for Co-operation and Exchanges in the Field of Museology to spend 2 weeks at the Arc'Antique Laboratory in Nantes, France, sharing expertise on the conservation of lead
- researcher with MolArt in the Netherlands on a project to reproduce the technologies of 18th- and 19th-century artists and to study the behaviour of the materials used (this project involved the Fundamenteel Onderzoek der Materie Instituut voor Atoom - en Molecuulfysica); CCI studied the effect of oil processing on the flow properties, handling, appearance, and optical properties of European paintings of the 17th and 18th centuries
- member of the Archaeological Institute of America's Conservation and Heritage Management Committee

Financial Statement 2000-2001

Appropriation		4,932,730
Transfer of Funds for Capital Equipment Replacement from Sector and Department		1,142,000
Vote-netted Revenue ¹		1,805,000
Carry-forward from 1999-2000 ²		133,484
Earned Revenues:		
Publications and Special Products	100,070	
Conservation and Scientific Services	385,996	
Library Services	2,750	
Exhibit Transportation Services ³	769,730	1,258,546
Total Operating Budget		9,271,760
Expenditures:		
Salaries		4,553,964
Postage and Freight	36,988	
Communications	63,945	
Information and Printing	103,243	
Professional and Special Services ⁴	907,291	
Travel ⁵	184,111	
Rentals	25,358	
Repair and Maintenance	149,157	
Utilities, Materials, and Supplies	1,031,262	
Acquisition of Machinery and Equipment	348,475	
Reimbursement of Vote-netted Revenue	1,805,000	4,654,830
Canada's Membership Fee to ICCROM		67,799
Total Expenditures		9,276,593
Balance		-4,833

Note: This is not an audited financial statement.

- 1 Vote-netted revenue is a financial mechanism used by the Government of Canada to provide a draw on projected earned revenue.
- 2 The carry-forward of funds is governed by Treasury Board policies. This carry-forward was planned and is earmarked for capital equipment replacement.
- 3 The Financial Statement includes the Exhibit Transportation Services.
- 4 Professional and Special Services include contractual work, consulting and advisory contracts.
- 5 Travel includes museum and site visits, conference attendance, professional association business, and travel for training and emergency services.