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Canada

ANNUAL REVIEW 2014–2015

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List of acronyms and abbreviations

CAFM	Canada Agriculture and Food Museum
CIK	Central Institute for Conservation
CCI	Canadian Conservation Institute
FTE	full-time equivalents
ICCROM	International Centre for the Study of the Preservation and Restoration of Cultural Property
IWCSPP	International Working Conference on Stored Product Protection
OMA	Ontario Museum Association
PCH	Patrimoine canadien / Canadian Heritage
RH	relative humidity
YVR	Vancouver International Airport

Canadian Conservation Institute's (CCI) mission

CCI advances and promotes the conservation of Canada's heritage collections through its expertise in conservation science, treatment and preventive conservation. CCI works with heritage institutions and professionals to ensure these heritage collections are preserved and accessible to Canadians now and in the future.

To achieve its mission, CCI organizes its operations into three core activity areas:

1. **Research and development in conservation**, including scientific research, advanced techniques for treatment and restoration, and practical and innovative solutions for caring for collections
2. **Provision of expert services**, including scientific services, conservation treatments and preservation advisory services, to heritage institutions and professionals
3. **Sharing of conservation knowledge**, through training, professional development, online learning materials and publications, to assist those responsible for heritage objects and collections to make informed decisions about the care of their collections

Marie-Lou Beauchamp, Intern, consolidates flaking pigment on the Salzinnes Antiphonal, a parchment manuscript written in iron gall ink and containing full page illuminations. c. 1554–1555. CCI 90765-0736

Evelyn Ayre, Intern, wet cleaning the detached horsehair beard of a Chinese lion head used in traditional dances for celebratory occasions by Vancouver Chinatown communities in the early 20th century. CCI 120499-0041

Patricia E. Kell
Director General and Chief Operating Officer
Canadian Conservation Institute

Director General's message

I am pleased to present CCI's 2014–2015 Annual Review, which provides an overview of CCI's activities and achievements during the 2014–2015 fiscal year. It has been a year characterized by excellent accomplishments and major planning for the future.

In 2014–2015, we completed our first strategic plan. This plan, which follows on a recommendation in the program evaluation, sets out several focus areas for our activities in the coming five years. Consultations with the heritage community across Canada in 2013 provided critically important perspectives for determining our future direction. I am grateful to the dedicated team of managers and employees who worked so diligently and debated so passionately to ensure that CCI continues along the path of excellence.

In the 2015–2020 Strategic Plan, CCI is committed to improving the preservation of and access to heritage collections for Canadians by:

- Building expertise in the conservation of modern materials
- Strengthening CCI's leadership in preventive conservation and the museum environment
- Contributing to the Government of Canada's history priorities
- Modernizing and diversifying opportunities for professional development for heritage workers.

We have also renewed our commitment to organizational effectiveness. CCI's most pressing challenge and opportunity is the anticipated retirement of up to 43% of its conservators and conservation scientists over the lifetime of the Strategic Plan. To better manage this situation, a succession plan has been created, and its implementation will be critically important in the coming years.

As you will see in the following pages, 2014–2015 was a year of considerable activity and many achievements. Spring was marked by the recognition extended to two employees who were presented with prestigious national and international awards, as well as a commendation for the outstanding work performed by CCI staff in response to the Alberta floods in 2013. During the summer, there was a feature article carried in the media about a

remarkable discovery on the structure of amber by CCI researchers. The pilot project for a new learning program to help heritage institutions unburden overtaxed storage areas was a great success. The pilot project included not only a traditional workshop format, but also Web-based learning tools and a final video. We continue to work on the preservation of the Parliament Buildings and their contents, including supports for the Books of Remembrance in the Peace Tower this year.

I hope that reading this Annual Review will give you an idea of the range of wonderful projects that CCI has carried out this year. Each one involved elements of puzzle-solving, discovery and accomplished craftsmanship, and each contributed to the preservation of Canada's irreplaceable cultural heritage. It is indeed an honour and a privilege to be entrusted with this work for the benefit of all Canadians.

Patricia E. Kell
Director General and Chief Operating Officer
Canadian Conservation Institute

Summary

The 2014–2015 Annual Review of the Canadian Conservation Institute (CCI) presents, in two sections, CCI's accomplishments over the past fiscal year. The first section, which takes the form of a management dashboard, outlines the key elements of CCI's performance measurement framework and sets forth the objectives, targets and performance results achieved with respect to its three core activity areas.

The second section is more qualitative in nature and describes some of the key projects and activities that were carried out in 2014–2015. The highlights of each of CCI's core activity areas are presented, along with an explanation of each challenge or issue in terms of preservation, as well as CCI's response. This section also outlines certain corporate initiatives.

Participants applying a practical laboratory approach at the Cleaning of Acrylic Painted Surfaces professional development workshop.
CCI 124590-0026

Objectives and outcomes for 2014-2015

Research and development

Table 1: Objectives and outcomes for research and development

Objective	Target	Outcome
The Canadian and international heritage community has access to the results of CCI's research and development activities	7 articles published in professional journals and peer-reviewed works (ratio of 1*)	11 peer-reviewed articles were published in 3 Canadian publications and 8 foreign publications (ratio of 1.4), exceeding the target by 57%
	Target	**Output**
	40 scientific and technical articles and presentations	47 articles and presentations were disseminated, exceeding the target by 18%

Expert services

Table 2: Objectives and outcomes for expert services

Objective	Target	Outcome
Heritage institutions use CCI's expert services to preserve their collections	130 Canadian institutions will make use of expert services for the preservation of their collections and objects	150 Canadian institutions benefited from expert services, exceeding the target by 15%
	Target	**Output**
	300 objects or collections will be analyzed, assessed or treated by CCI experts	866 objects and collections were treated, analyzed or assessed by CCI experts, exceeding the target by 189%

Knowledge dissemination

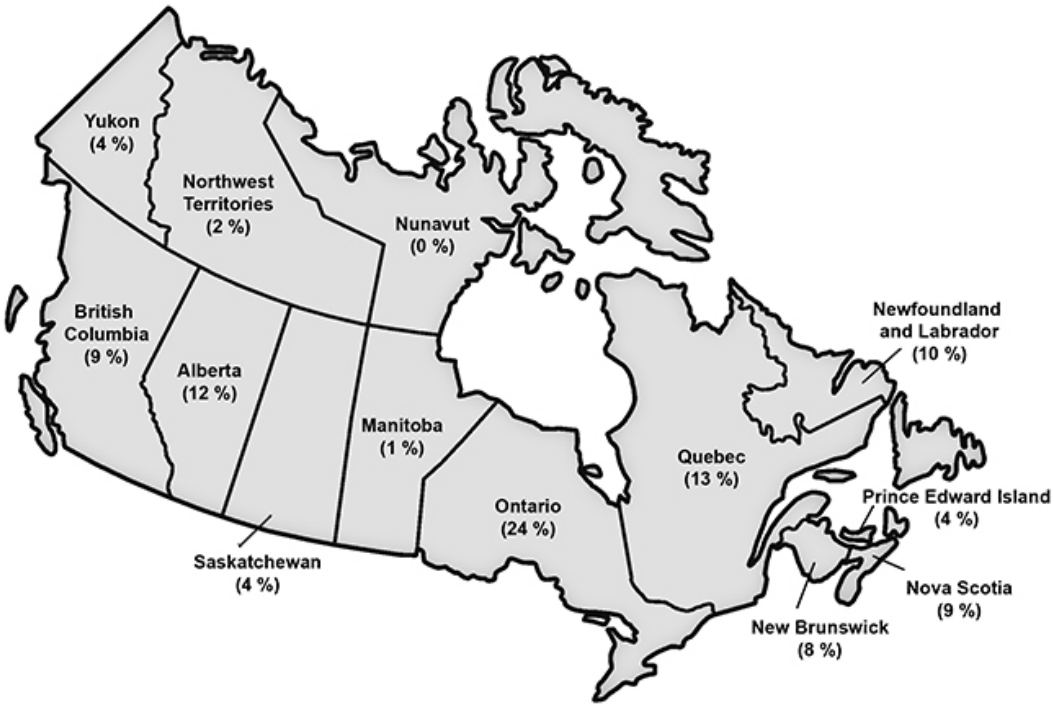
Table 3: Objectives and outcomes for knowledge dissemination

Objective	Target	Outcome
Heritage institutions and heritage workers improve their professional knowledge, skills and practices	90% of training workshop participants will report an improvement in their professional knowledge, skills and practices	98% of participants reported an improvement in their professional knowledge, skills and practices, exceeding the target by 8%
Canadian and international heritage institutions and workers take part in CCI activities and use CCI's learning resources	150,000 unique visitors will consult online learning resources	338,919 unique visitors consulted online learning resources, exceeding the target by 125%

Objective	Target	Outcome
	350 employees in the Canadian heritage sector will take part in regional and professional development workshops	434 people took part in regional and professional development workshops, exceeding the target by 24%
	Target	**Output**
	45 professional development activities in Canada	65 professional development activities were delivered in Canada, exceeding the target by 44%

* The ratio corresponds to the number of articles published in professional or peer-reviewed journals divided by half of the conservation science full-time equivalents (FTEs), since conservation scientists devote 50% of their time to research. For 2014–2015, the ratio was calculated as follows: 11 articles / 7.5 FTEs.

Percentage of CCI workshop participants from each province or territory



Research and development highlights

Effect of carbonyl vapours on cellulose

All paper documents slowly deteriorate, even those conserved in archives. At room temperature and with the presence of moisture in the air, the primary cause of degradation is acid-catalyzed hydrolysis. The presence of volatile acid products in the environment can speed up this reaction.

In partnership with the Centre de recherche sur la conservation des collections and the Muséum national d'Histoire naturelle in France, and under the guidance of Jean Tétreault, Senior Conservation Scientist, CCI compared various cellulose degradation models and looked at how pollutants affect degradation. The findings reveal that nitrogen dioxide and formic acid have a very harmful effect on cellulose, but that the effect is mitigated in the presence of formaldehyde. The research findings were presented twice in 2014–2015: at the 11th International Conference on Indoor Air Quality in Heritage and Historic Environments in Prague in April 2014, and at the 249th American Chemical Society National Meeting in Denver in March 2015.

Research relating to adhesives

Following the retirement in January 2014 of Senior Conservation Scientist Jane Down, a number of adhesive research projects were completed this year with the publication of articles. *These articles* related to updates of testing conducted over a number of years on the main types of adhesives used in the conservation field, namely poly(vinyl acetate)- and acrylic-based adhesives, as well as adhesive tapes and heat-set tissues. The objective of the testing was to determine whether any of the key properties of the adhesives, such as pH, flexibility and strength, changed as the adhesives aged and whether aging resulted in harmful effects such as an increase in the emission of volatile products and yellowing of the adhesive. A third article, dealing with the effect of modifying agents on the stability of an ethylene-vinyl acetate copolymer dispersion, was published online in April 2014. A print version is expected to come out soon.

Research on Canadian amber

The article "Inside Amber: The Structural Role of Succinic Acid in Class Ia and Class Id Resinite," by Jennifer Poulin and Kate Helwig, Senior Conservation Scientists, was published in Analytical Chemistry. For the first time, molecular evidence of the structural role played by succinic acid within the macromolecular structure of Class Ia and Class Id resinite was presented. The paper was chosen as an ACS Editors' Choice article and, as such, was granted unrestricted public access. The research was also selected for inclusion in an ACS press release. As a result, follow-up articles were written about this research and published in several scientific journals in North America and Europe, including The Column (UK), Chemical & Engineering News (USA), Pour la Science (France) and Canadian Chemical News (Canada). References to this research have also been made in numerous online science forums.

Kate Helwig and Jennifer Poulin, CCI Senior Conservation Scientists, reviewing Py-GC-MS data for the Canadian amber research project.
CCI 86101-0002

International Working Conference on Stored Product Protection

The International Working Conference on Stored Product Protection (IWCSPP) is a quadrennial conference attended by more than 300 of the world's research entomologists who endeavour to protect the world's food supplies and other stored products and whose work includes applied entomology, storage engineering and case studies. In November 2014, the 11th IWCSPP was held in Chiang Mai, Thailand, and Tom Strang, CCI Senior Conservation Scientist, was invited to give a keynote lecture.

A high percentage of the world's 1.5 billion to 3.5 billion natural history specimens are susceptible to attack by insect pests. A significant component of Tom Strang's work on pests has been influenced by research on agricultural pests reported by participants at IWCSPP conferences.

Tom Strang was invited to present a review of the need for, efficacy, applications and contraindications of the use of thermal control (heat, cold) to eliminate pests from collections and heritage structures.

Recognition

> The Canadian Conservation Institute has been working with a collection of amber taken from 11 sites across the country. This discovery [proof of internal cross-linking of the polymer matrix by succinic acid] not only introduces a new means of classifying these samples, but also opens up the possibility of tackling other natural polymers in the same way.
>
> "ACCN, the Canadian Chemical News," November–December 2014

Expert services highlights

Conservation services

Albumen photographic print of Adelaide Hunter Hoodless

The albumen photographic print of Adelaide Hunter Hoodless, belonging to the Adelaide Hunter Hoodless Homestead, a national historic site, is the earliest known image of Ms. Hoodless and shows her as a young woman. Well-known as a Canadian advocate for girls' education and credited with co-founding several women's organizations, Adelaide Hunter Hoodless was also a powerful force behind the establishment of three university faculties of household science, which earned her national recognition during her 20 years of public life in the first decades of the 20th century.

Greg Hill, Senior Conservator, Paper, led the CCI conservation treatment for this unique portrait dating from 1876. The photograph, mounted on rigid board, was broken vertically through the centre. To conserve it, it was necessary to remove the photograph from the mount board, repair it, then place it back on its original, but reconstructed, mount board.

Before treatment. CC1 123731-0010

After treatment. CCI 123731-0014

297 artifacts from Franklin's 1845 polar mission–2012 field season

In addition to the searches by Parks Canada for Sir John Franklin's ships, the Erebus (discovered 2014) and the Terror, all known land sites connected to Franklin's expedition are being surveyed by an archaeological team from Nunavut. The aim of this multi-year project is to increase our knowledge of the final years of this doomed expedition.

During the summer of 2012, several sites on King William Island were surveyed, and any visible artifacts were collected from the surface to preserve them from loss through exposure to the extreme environment and depredations by tourists. A collection of 297 artifacts made of wood, leather, fabric, glass and metal were sent to CCI for conservation treatment. The metal artifacts were heavily contaminated with salt absorbed from the Arctic Ocean, and underwent salt removal treatment to prevent continuous corrosion. One of the more interesting artifacts recovered is the wooden hawse plug from Franklin's command ship, the Erebus. The hawse plug was used to block holes in the ship, through which the anchor chains (also known as hawsers) were run, to prevent water and rats from coming onto the ship.

Buffalo Stampede

The Buffalo Stampede, 1882, owned by the Art Gallery of Alberta, is an oil painting on canvas by Frederick Arthur Verner, 1836–1928, depicting an iconic scene of the early Prairies: the buffalo jump.

The treatment of the Buffalo Stampede, led by Debra Daly Hartin, Senior Conservator, Fine Arts, focused on consolidating an overall flaking problem that was so severe that the painting could not safely be placed upright. Following an examination and analysis of the materials in the painting, the cause of the flaking and lifting paint was determined to be related to a glue used in an early lining treatment that had saturated the painting. Under a microscope, the lifting paint was consolidated from the front with a synthetic adhesive.

The consolidation work continued after the removal of the discoloured varnish and extensive overpaint. Though there is evidence of the surface having been abraded during earlier cleaning campaigns, removal of the overpaint allows better appreciation of Verner's ability to create an atmospheric and stormy sky.

Final treatment steps included the levelling of early fills, the filling of losses, inpainting and the application of a stabilized varnish.

Before treatment. CCI 85733-0001

After treatment. CCI 85733-0076

Nisga'a button blanket

The button blanket, belonging to the Nisga'a Museum, Laxgalts'ap, British Columbia, was worn as part of Nisga'a ceremonial regalia. The object, which was collected in 1911 from a high-ranking member of the Wolf clan and repatriated in 2010 from the Royal British Columbia Museum, was damaged by insects that created holes in the trade blanket and red wool appliqués. Portions of the side panels were gone; appliqué edges were loose; and many shell buttons were missing. Because of the great interest in having it put on display, conservation treatment was required to stabilize the blanket and make it easier to handle.

After vacuuming and removing small areas of a brittle deposit, the holes in the blanket were filled with needle-felted wool plugs that were stitched into place. A lightweight wool was custom-dyed and inserted beneath losses in the red wool side borders and appliqués. This backing was stitched into place along the edges of the losses. No buttons were added since only a few thread remnants were left to indicate their exact placement and the blanket would have been stressed by the additional weight.

Before treatment. CCI 123268-0001

After treatment. CCI 123268-0032

Shaunavon Panorama

The Shaunavon Panorama, which measures 281 cm x 26 cm and dates from 1914, is a large painting depicting the origin of the Town of Shaunavon. The artist, Emile A. Mayeur, arrived in Saskatchewan in 1911, and was one of several French artists active in Regina. The panorama was painted in three sections on two different fabrics, and the sections were cut to fit and mounted with adhesive to a wooden plank inscribed with details about the artist.

Led by Debra Daly Hartin, Senior Conservator, Fine Arts, this conservation treatment involved surface cleaning and removal of the painting from the support. The serious distortions of the original canvas were relaxed over time and gently flattened. The painting was supported with a new synthetic lining canvas and then re-adhered to its original wooden support. The losses and damage to the paint layer were filled and in-painted. The composition ornamentation of the frame was also conserved and restored.

At a public event in May 2015, the Grand Coteau Heritage & Cultural Centre unveiled the painting following its treatment, and it is now on permanent display.

CCI conservators and interns use a marouflage technique to attach a synthetic lining canvas and re-adhere the painting to the wooden support. CCI 97866-0179

Maud Allan's Vision of Salome costume

Maud Allan, a Canadian forerunner of modern dance, wore this body-conscious costume to perform her Vision of Salome dance in 1906.

Bodice front before treatment.
CCI 124901-0044

After treatment. CCI 124901-0073

The lightweight silk bodice and skirt are heavily ornamented. Use of the costume took a toll on the condition of the bodice, skirt and two head pieces. Brenna Cook, Intern, Textile Laboratory, applied a new custom-dyed silk crepeline lining to the inside of the skirt to protect the remaining original lining, to act as a separating layer between the metal embroidery, to provide a strong base for supportive stitches and to strengthen the skirt overall. The bodice was lined with a matching coloured fabric, and corrosion on the metal braid of the bodice was cleaned. Loose pearls were strung to imitate the original bodice drapery and to add accuracy to the aesthetic impact of the display. Supportive storage mounts were created for all of the costume pieces.

Recognition

> As has been our experience in the past, CCI responded to our request for assistance with collegial interest, respect and very good grace. Treatment arrangements were made in order for us to take advantage of the opportunity to have very fragile natural history specimens hand-carried to and from Ottawa. […] We are very pleased with the results, which will enable us to maximize access without risk to the specimens. […] With CCI's assistance, we are better able to meet our mandate to preserve the history of our province.
>
> Director, Provincial Museum, Newfoundland and Labrador

> We were all very excited to see the [object], particularly the two descendants of the original owner who were there […]. Thanks to the entire CCI team for their support – we are very, very, grateful.
>
> Executive Director, Aboriginal Cultural Center, British Columbia

> I'm standing in the [transit] station crying tears of joy because I can't believe how incredible this is! To see the draped pearls back where they are supposed to be is overwhelming. It looks so beautiful. I can't tell you what it means to me to see the incredible job the CCI has done. I have been monitoring this costume for almost two decades waiting for the opportunity to seek treatment. We could never have afforded this project without CCI. I am so grateful that we will be able to share this important Canadian artifact. Thank you, CCI.
>
> Facebook comment on CCI Facebook page Return of Salome Dance Costume

Scientific services

Analysis of white accretions on a wood sculpture

During the treatment of Flight Spindle Whorl, a 1995 red cedar sculpture by Susan A. Point of the Musqueam Nation, Fraser Spafford Ricci Conservation Inc. requested an analysis of a white residue on the bottom of the sculpture. The sculpture, which is the highlight of the art collection at the Vancouver International Airport (YVR), is installed above a pool of water in front of a waterfall. Although the sculpture is protected by a sheet of Plexiglas positioned behind it, the area around the carving is very humid and wet.

The residue was found to be composed of materials probably originating in the wall behind the waterfall that had been dissolved by water running over its surface. The materials were transported into the humid air and came into contact with the lower portion of the sculpture; the water subsequently evaporated and left a white residue on the surface of the wood.

The information in the CCI report helped to develop the procedure for removing the white residue and, most importantly, is serving as a guide for future care of the sculpture. It was found that the flow of the waterfall needed to be decreased to avoid its water spray from bouncing back against the base of the sculpture. Measures have also been taken to ensure control over the water flow in the future as part of ongoing care of the airport's collection by the art custodians at YVR.

Painted photographic portraits from the Notman Photographic Archives

The McCord Museum has a significant collection of photographs identified as the Notman Photographic Archives, dating from the mid-19th century to the present day, attributed to William Notman and the William Notman Studio, as well as to other Canadian photographers. The Notman Photographic Archives include enlarged portraits in addition to photographs of various sizes painted by artists employed by the Notman Studio and other photography studios.

As part of the research carried out for an upcoming exhibition, 49 portraits created between 1855 and 1925 were studied to confirm the presence of a photograph under the paint, given that other image transfer methods were available to artists at the time. Dominique Duguay, Conservation Scientist, analysed these works on site by X-ray fluorescence spectrometery, a non-destructive analysis method, using a portable instrument. This technique can detect photographic elements not present in oil paint, such as silver and platinum.

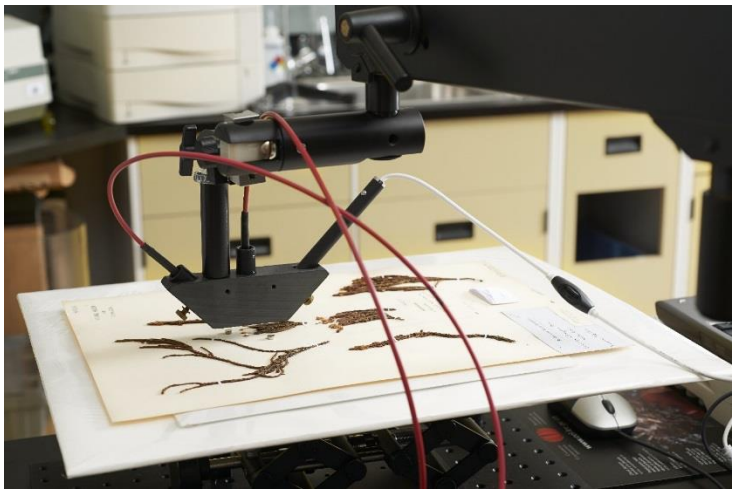
Photographic elements were detected in 28 of the 49 portraits, and most of the photographs were produced by a silver process. CCI's analysis identified trends in the use of photographic processes by certain artists employed by these photography studios.

Conservation Scientist Dominique Duguay at the McCord Museum using a portable X-ray fluorescence spectrometer to analyze a portrait and determine whether or not there is a photograph under the paint.

Microfade testing of Franklin herbarium sheets

During the planning of the "Arctic Voices" exhibition on display from December 2014 to April 2015, the Canadian Museum of Nature considered exhibiting a selection of herbarium sheets related to Sir John Franklin's expeditions in the Canadian Arctic. These plant specimens were collected by Dr. John Richardson during one of the two successful Franklin expeditions that took place *c.* 1819–1822 and 1825–1827.

These sheets contain many labels with inscriptions and stamps that are an important part of the specimen. They are the primary source of scientific record, such as identification, specific collection data, changes in classification, citations in papers and history of transfer from one institution to another. Because the museum was concerned about the light sensitivity of the inks in the inscriptions and stamps, microfade testing was used to test over 70 areas on four sheets. Most of the inks were found to be highly light-sensitive, but they can be safely exhibited at low light levels.



Microfade testing on one of the herbarium sheets from one of the Franklin expeditions, *c.* 1828. CCI 127483-0006

Recognition

> Thank you very much for this analysis. I am impressed by how quickly it was done and the thoroughness of the analysis. We are fortunate to have the specialized services of CCI for the analysis of this important work of First Nations Canadian art.
>
> Private Fine Art Conservator, British Columbia

> We are very grateful for this thorough analysis of the work. It is of tremendous importance, especially in advance of any conservation treatment down the road.
>
> Fine Art Conservator, Provincial Museum, Ontario

> Thanks very much for the report. It is very interesting, particularly in the finding of both silver and aluminium leaf.
>
> Conservator, Provincial Museum, Quebec

Preventive conservation

Adjustable mounts for the Books of Remembrance

The conservation recommendations in a CCI condition assessment of the Books of Remembrance in the Memorial Chamber in the Peace Tower by Book Conservator Christine McNair resulted in CCI developing a support system for the books to minimize stress on the bindings during display. The Department of Veterans Affairs was commissioning the design of replacement altars for each book, which provided a good opportunity to improve the long-term preservation of the books. For typical museum applications, static mounts are used; however, the Books of Remembrance continually change position throughout the year during the Turning of the Page Ceremony. This unique presentation required a simple and adjustable solution for displaying the books.

A counterbalance design was developed by Conservation Scientist Eric Hagan, using a mechanism modelled on the unique wooden structure currently supporting the World War I

Book of Remembrance on the central altar. The new system allowed for a greater range of motion within a smaller space and follows the natural motion of the book when each page is turned. Six book mounts were subsequently commissioned and built at CCI, and the prototype model was adapted to the unique dimensions of each book. The completed mounts were installed along with the new altars in time for Remembrance Day, 2014.

Completed mounts assembled at CCI, shown with (front) and without (rear) fabric covers. CCI 126998-0001

WWII Book of Remembrance displayed on the new mount and altar.
CCI 126998-0013

Preparing to move, store and protect Parliament's Centre Block art and artifact collections

Under the Memorandum of Understanding signed with the Parliamentary Precinct Branch of Public Works and Government Services Canada (PWGSC), CCI completed a Heritage Assets Feasibility Study, which will be used in developing the design for the rehabilitation of the Centre Block of the Parliament Buildings, including cost evidence, beginning in 2018. CCI's Heritage Assets Feasibility Study focused on the following:

1. An options analysis for the design of a storage and conservation treatment facility
2. An options analysis for a move management plan
3. An options analysis for protection measures to safeguard the fragile heritage interior elements of the Centre Block.

This Heritage Asset Feasibility Study is part of CCI's ongoing commitment to provide preservation planning and support to the implementation of the Parliamentary Precinct's Long-Term Vision and Plan. CCI's collaboration with the Parliamentary Precinct Branch underlines the commitment of the Department of Canadian Heritage to provide support for the preservation of this Classified federal heritage building of exceptional national significance.

Relative Humidity (RH) Module at the Canada Agriculture and Food Museum

The most recent installation of the CCI RH Module for humidity control of display cases and enclosures can be found at the Canada Agriculture and Food Museum (CAFM) in Ottawa, Ontario. The Module is housed at the Central Experimental Farm in a historic structure built in 1936–1937, which was recently renovated into a state-of-the-art learning facility. CAFM initiated a dialogue between CCI and the project management firm hired to manage the facility retrofit in order to identify and fit up a dedicated room for the RH Module and provide

rough-in drawings for the air distribution piping early on in the renovation project. The museum then hired a skilled manufacturer to build the RH Module out of mostly commercially available components. Subsequent discussions between the exhibition designers, museum staff and contractors resulted in an air distribution network that is discreetly concealed among the structural elements and equipped with readily available quick-connect plumbing hardware for simple adaptation to changing exhibition requirements.

The newly renovated building now contains permanent exhibition areas, a multi-purpose meeting hall, offices and learning labs, and the RH Module system allows sensitive materials to be displayed in a safe environment while preserving the historic building. The CAFM RH Module is CCI's third installation for the Canada Science and Technology Museums Corporation.

Recognition

> I sincerely appreciated how [CCI Preservation Development Advisor] took the time to truly understand the complex challenges that not only our museum faces, but also some of the challenges under which our staff is expected to work. The solid, practical recommendations and advice she gave to me verbally, as well as through her written report, have already been put to good use by staff as we deal with the move of our collection to an off-site storage facility. The report has also been very well received by our collections committee […].
>
> Curator – Collection Manager, Provincial Museum, British Columbia

> I would like to congratulate [CCI Conservation Scientist] for your excellent job. I've received some comments back, and people were very impressed with your research and accomplishment.
>
> Project Leader, Federal Department

> From my perspective, [CCI Preservation Development Advisor] has identified and expressed my key concerns quite succinctly!
>
> Archivist, Territorial Institution, Northwest Territories

Professional development highlights

Table 4: Professional development highlights — regional workshops

Regional Workshop	Location	Date
Archaeological Conservation Field Techniques	St. John's, Newfoundland and Labrador Peterborough, Ontario	June 2014 October 2014
Archival Materials	Dawson City, Yukon	October 2014
Care of Metals in Collections	Kingston, Ontario	October 2014
Care of Photographic Materials	Brantford, Ontario	March 2015
Construction of Mannequins for Historic Costumes	Kingston, Ontario	February 2015
Digital Photodocumentation of Museum Objects	Montréal, Quebec	November 2014
Emergency and Disaster Preparedness for Cultural Institutions	Calgary, Alberta Kelowna, British Columbia Calgary, Alberta Québec, Quebec	July 2014 August 2014 September 2014 February 2015
Environmental Guidelines	St. John's, Newfoundland and Labrador	October 2014
Exhibition Lighting	Brandon, Manitoba	November 2015
Mount-making	Québec, Quebec	June 2014
Packing and Shipping of Cultural Property	Gatineau, Quebec	July 2014
Integrated Pest Management (IPM) for Cultural Property	Halifax, Nova Scotia (archives) Halifax, Nova Scotia (museums)	October 2014 October 2014
Storage Reorganization	Toronto, Ontario Swift Current, Saskatchewan Yellowknife, Yukon	April 2014 October 2014 September 2014
Textiles	Fredericton, New Brunswick	October 2014

Table 5: Professional development highlights — advanced professional workshops

Advanced Professional Workshop	Location	Date
Cleaning of Acrylic Painted Surfaces	Ottawa, Ontario	August 2015
RE-ORG: Canada (Ontario)	Brantford, Ontario	March 2015

Cleaning of acrylic painted surfaces

In co-operation with the Getty Conservation Institute (GCI), CCI organized a professional development workshop on the cleaning of acrylic painted surfaces, given by internationally renowned trainers. Tom Learner, Head of Science, GCI, U.S.; Bronwyn Ormsby, Senior Conservation Scientist, Tate, UK; Alan Phenix, Scientist, GCI, U.S.; and Chris Stavroudis, Paintings Conservator in private practice, U.S., gave lectures and supervised practical assignments, sharing their knowledge and recent discoveries regarding the cleaning of acrylic painted surfaces.

The 18 conservators who took part in this professional development workshop—the vast majority of whom were from Canada—learned how to examine the properties of certain painted surfaces in response to water and mineral spirits. Then, by conducting tests involving simply regulating the pH and the conductivity, followed by the controlled addition of surfactants and chelating agents, the participants were able to come up with effective

solutions for cleaning and rinsing the surfaces, while reducing the negative effects on paint films (e.g., bulging, extraction of components and changes to the shine).

Guest trainer Chris Stavroudis advising one of the participants during practical laboratory work at the professional development workshop.
ICC 124590-0052

Emergency and disaster preparedness for cultural institutions

In 2014–2015, CCI introduced the new Emergency Response Planning Workbook, in both official languages, to participants in CCI regional workshops on emergency and disaster preparedness for cultural institutions.

For a number of years, CCI has been looking at new ways to train museum and heritage professionals in emergency preparedness and response. CCI has long been in need of a tool that provides step-by-step assistance to institutions developing emergency response plans and capacity. Preservation Development Advisor Irene Karsten, who developed the Workbook, sets out 10 emergency objectives to be used as a guide in emergency response activities and provides background information and worksheets to help set up a response team, develop response strategies and provide resources for emergency response activities. The worksheets are linked to an emergency plan template that can be easily edited to meet the needs of a particular institution.

This new tool is an important addition to the lectures, demonstrations, hands-on activities and scenario planning exercises of the regional workshop.

Recognition

I left feeling very excited at the end of the workshop and conference. I felt both gave us a great toolkit of techniques and ideas to take back to the Museum which could help guide both our action and the day-to-day implementation of our reorganization.

Participant, Advanced Professional Workshop RE-ORG, Ontario

I really enjoyed the workshop and got a lot of great ideas out of it. I feel much better prepared and more enthusiastic about getting into my store rooms and getting to work.

Participant, Regional Workshop, Nova Scotia

The opportunity to present a subsidized workshop this year in Ontario meant that it was both affordable and convenient for the participants. It was incredibly valuable for the participants to do so much hands-on work and actually create mannequins that they could take away with them and to see what could be accomplished with very simple and inexpensive materials.

Director, Provincial Association, Ontario

Publishing and online resources highlights

Launch of new CCI website

In 2014–2015, CCI launched its new website formatted to reflect the Government of Canada's latest design guidelines and accessibility standards. The architecture of the new website is more than a new look and is intended to provide Canadians with a standard method for finding the information they need in all Government of Canada websites. CCI's new website has a more streamlined look and improved functionality to simplify the browsing experience. Users can access all key information from drop-down menus in the top menu bar in order to easily find the information they need to care for objects and collections, request CCI services and participate in professional development opportunities.

External publications

The 21 CCI scientists and conservators highlighted in bold below wrote or contributed to 15 articles in scientific and conservation journals, newsletters and proceedings.

Bedynski, Maria, Doris St-Jacques, Lynn Curry and **Season Tse**. "An Antioxidant Research Project Resulting From Treatment Needs of an 18th-Century Illuminated Manuscript." In Care and Conservation of Manuscripts 14: Proceedings of the Fourteenth International Seminar Held at the University of Copenhagen, 17th–19th October 2012. Copenhagen: n.p., 2014, pp. 157–176.

Binnie, Nancy E. "Forty Pieces of Silver: A Historic Paint Investigation for the Former Bank of Montreal Building, Ottawa." In Rachel Faulding and Sue Thomas, eds., Architectural Paint Research: Sharing Information, Sharing Decisions. London, UK: Archetype Publications, 2014, pp. 157–168.

Cook, Clifford, David W. Grattan, James Hay and Andrew Todd. "Documenting the Rate of Carving Loss in the Totem Poles of Nan Sdins Using Image Analysis – 1982 to 2009." Journal of the Canadian Association for Conservation 38 (2013), pp. 3–13.

Dignard, Carole, **Amanda Salmon** and **Season Tse**. "The Treatment of a Mi'kmaq Box Made of Birchbark, Porcupine Quills and Iron-dyed Spruce Root." In Proceedings of the Objects Specialty Group, AIC 40th Annual Meeting, Albuquerque, New Mexico, May 9–11, 2012. Objects Specialty Group Postprint, vol. 19, 2014, pp. 109–127.

Dignard, Carole and **Jane Down**. "Farewell BEVA 371 Original Formula and Lascaux 360 HV, Hello BEVA 371b and Lascaux 303 HV." ICOM-CC Leather and Related Materials Working Group Newsletter 6 (June 2014), pp. 4–6.

Down, Jane L. "The Evaluation of Selected Poly(vinyl acetate) and Acrylic Adhesives: A Final Research Update." Studies in Conservation 60,1 (2015), pp. 33–54.

Down, Jane L., **Sherry Guild**, **Greg Hill**, **Christine McNair**, Doris St-Jacques and Kathleen Westbury. "Evaluation of Selected Adhesive Tapes and Heat-set Tissues – A Final Update." Journal of the Canadian Association for Conservation 38 (2013), pp. 14–25.

Helwig, Kate, **Jennifer Poulin**, **Marie-Claude Corbeil**, **Elizabeth Moffatt** and **Dominique Duguay**. “Conservation Issues in Several Twentieth-Century Oil Paintings: The Role of Zinc Carboxylate Reaction Products.” In K.J. van den Berg, A. Burnstock, M. de Keijzer, J. Krueger, T. Learner, A. de Tagle and G. Heydenreich, eds., Issues in Contemporary Oil Paint. Switzerland: Springer, 2014, pp. 167–184.

Karsten, Irene, **Stefan Michalski**, Maggie Case and **John Ward**. “Balancing the Preservation Needs of Historic House Museums and Their Collections Through Risk Management.” Paper presented at the Joint Meeting of ICOM-DEMHIST and ICOM-CC Working Groups, Los Angeles, CA, November 6–9, 2012. In Kate Seymour and Malgozata Sawicki, eds., Proceedings of The Artifact, Its Context and Their Narrative: Multidisciplinary Conservation in Historic House Museums [online]. [N.p.]: ICOM-DEMHIST and ICOM-CC, 2012.

Lambert, Simon and **Tania Mottus**. “Museum Storage Space Estimations: In Theory and Practice.” In J. Bridgland, ed., ICOM-CC 17th Triennial Conference Preprints, Melbourne, 15–19 September 2014. Paris, France: ICOM Committee for Conservation, 2014.

Mason, Janet. “Reintegration of Line and Color on a Kwakwaka’wakw Beaded Button Blanket.” ICOM-CC Ethnographic Conservation Newsletter 36 (November 2014), pp. 8–11.

Michalski, Stefan. “The Power of History in the Analysis of Collection Risks from Climate Fluctuations and Light.” In J. Bridgland, ed., ICOM-CC 17th Triennial Conference Preprints, Melbourne, 15–19 September 2014. Paris, France: ICOM Committee for Conservation, 2014.

Michalski, Stefan. “Conservation Research Into the Museum Climate: The Current Landscape.” Conservation Perspectives: The GCI Newsletter 29,2 (Fall 2014), pp. 10–12.

Poulin, Jennifer and **Kate Helwig**. “Inside Amber: The Structural Role of Succinic Acid in Class Ia and Class Id Resinite.” Analytical Chemistry 86 (2014), pp. 7428–7435.

Selwyn, Lyndsie, **Clifford Cook**, W. Ross McKinnon, Ron Fairman and Sylvie Labroche. “Iron Stain Removal From Archaeological Composite Artifacts Made of Wood and Iron.” Journal of the Canadian Association for Conservation 38 (2013), pp. 31–42.

Recognition

> The new edition of Studies in Conservation […] has a very useful article by Jane Down, “The evaluation of selected poly(vinyl acetate) and acrylic adhesives: a final research update.” […] they show how extended testing has produced some surprises in the behavior of some of the most used adhesives in our field. The aging characteristics of a number of products should cause practitioners to modify their use of the materials and perhaps replace others […] Thanks to CCI and Down and her associates for another example of fine and elegant scientific work.
>
> University Professor, Anthropology Department, USA

Corporate initiatives

Strategic Plan approval and implementation

In 2014–2015, CCI launched its Strategic Plan, which outlines the strategic directions for 2015–2020. The Strategic Plan follows on a recommendation made in an evaluation by the Office of the Chief Audit and Evaluation Executive and includes the results of consultations with CCI clients and an analysis of CCI services and business model.

The Strategic Plan outlines six strategic directions that will guide CCI in its efforts to focus its knowledge and expertise in order to ensure that it has the greatest impact possible on preservation activities and provides access to significant heritage objects and collections in Canada. With its ability to generate new knowledge and tools, based on actual problems and practical experience, CCI will continue to undertake research and development in the conservation field, provide expert services and share conservation knowledge. In implementing the Strategic Plan, CCI will actively seek opportunities for collaboration with outside partners and within CCI.

Awards and recognition

External awards and recognition

Charles Mervyn Ruggles Award

Charlie Costain, Associate Director General and Director of Research, Conservation and Scientific Services, received the Charles Mervyn Ruggles Award of the Canadian Association for Conservation. Recipients of this premier award are celebrated for their contribution and achievement in conservation science, treatment, training and/or education and for their development work in the field of conservation.

Carolyn L. Rose Award

Tom Strang, Senior Conservation Scientist, received the 2014 Carolyn L. Rose Award from the Society for the Preservation of Natural History Collections (SPNHC). The SPNHC, whose mission is to improve the preservation, conservation and management of natural history collections, presented this prestigious international award to Tom Strang for his work in developing and promoting integrated pest management, thus helping the Society to achieve its objectives.

PCH Deputy Minister's Inspiration Award

Irene Karsten, Preservation Development Advisor, and Greg Hill, Senior Conservator, Paper, received the Deputy Minister's Inspiration Award in recognition of the exceptional service provided for the Museum of the Highwood in response to the flood of June 2013. The 2014 Inspiration Award was presented during National Public Service Week in June 2014.

From left to right: Colleen Swords, Deputy Minister, Irene Karsten, Preservation Development Advisor, and Greg Hill, Senior Conservator, Paper.

CCI awards

CCI Team Work Award: Advanced professional development Display Case Workshop

The team led by Jean Tétreault, Senior Conservation Scientist, along with Stefan Michalski, Senior Conservation Scientist, and Eric Hagan, Conservation Scientist, was recognized as a model of team effectiveness for the way it developed and organized the Display Case Workshop held in November 2013.

From left to right: Stefan Michalski, Senior Conservation Scientist, Jean Tétreault, Senior Conservation Scientist, Patricia Kell, Director General, and Eric Hagan, Conservation Scientist. CCI 101363-0096

CCI Technical Achievement Award

Season Tse, Senior Conservation Scientist, received the CCI Technical Achievement Award for developing and implementing the microfade testing service.

During the initial stages of method development and service delivery, Season Tse demonstrated scientific leadership and became one of the few experts on microfade testing in the world. Last year, the service was announced on the CCI website and officially made available to all clients in Canada as an on-site scientific service or a scientific service at CCI.

In her research and service work, Season Tse assembles data that will increase CCI's knowledge of the light sensitivity of heritage materials and which will be published or incorporated into the Light Damage Calculator for the benefit of the heritage community.

From left to right: Season Tse, Senior Conservation Scientist, and Patricia Kell, Director General. CCI 101363-0097

Recognition

> I am pleased to send a note expressing my thanks for the extraordinary service I have received from [Fine Arts Conservator] and CCI. I phoned on behalf of my institution, with a particular question about displaying a painting in its collection. […] Following an expert interview by phone, [Fine Arts Conservator] sent documents to my email inbox that were pertinent to the situation I described. […] The information was – is – not only practical, but also professional, providing valuable data that will help my institution make an informed choice about the way it will display this artwork.
>
> Collections Coordinator, University, Ontario

> [CCI] staff are extraordinarily talented and dedicated and are very generous (and patient) in presenting their work to visitors. More Canadians should know about the contribution the CCI and its personnel are making to preserve and present the country's heritage.
>
> Participant, Ottawa Doors Open, 2014

Partnerships and collaborations

RE-ORG international

Disorganized storage areas compromise the conservation, accessibility and potential use of collections for the public's benefit. To help museums struggling with these problems, CCI collaborated with the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM) and the Central Institute for Conservation in Belgrade (CIK) to develop new training materials for distance learning that are based on the original RE-ORG methodology developed by ICCROM and UNESCO, as well as to create an online training platform for use by various international teams. The training materials will be made available to a wider audience in 2016.

Also in 2014–2015, CCI launched a new training program called RE-ORG: Canada, the objective of which is to build a Canada-wide network of professionals committed to helping other museums start their own storage reorganization projects. RE-ORG: Canada is a series of one-year, project-based courses offered over a five-year period that combine distance learning and hands-on training in actual storage areas. The pilot edition of RE-ORG: Canada was organized in Ontario in collaboration with the Ontario Museum Association (OMA).

Ontario participants in the RE-ORG: Canada pilot project. CCI 126415-0001

Recognition

> [CCI Preservation Development Advisor's] presentation on Collections Storage and the RE-ORG project was flawless. […] Thank you for delivering such a perky, informative, honest information session. The topic is timely, not only as per our curriculum, but it fully supports events and projects that are going on around us at the local and the regional level. […] The workbook is a much-needed resource. […] Our programs are lucky to have such healthy partnerships with the local heritage community and with CCI.
>
> Co-ordinator, Collegial Cultural Heritage Conservation and Management Programs

Financial statement for 2014–2015

Program Budget		
Operating Budget		
Program operations		6,548,249
Earned revenue (vote-netted revenue)[1]		(500,000)
Total – Operating Budget		6,048,249
Program Support and Employee Benefits		
Program support		403,754
Employee benefit plans		911,220
Total – Program Support and Employee Benefits		1,314,974
Total – Program Budget[2]		7,363,223
Program Expenditures		
Operating Expenditures		
Salaries		5,327,336
Non-salary		
Program operations[3]	1,050,955	
Earned revenues[4]	(687,132)	
Total – Non-salary Expenditures		363,823
Total – Operating Expenditures		5,691,159
Program Support and Employee Benefits		
Program support		491,512
Employee benefit plans		866,841
Total – Program Support and Employee Benefits		1,358,353
Total – Program Expenditures		7,049,512
Total Balance		313,711

NB: This is not an audited financial statement.

Footnotes

[1] Vote-netted revenue is a financial mechanism used by the Government of Canada to provide a draw on projected earned revenue.

[2] Total Program Budget does not reconcile with Planned Spending identified in the Department of Canadian Heritage's 2014-15 Report on Plans and Priorities and 2014-15 Departmental Performance Report due to the transfer of real property budget to PCH's Internal Services.

[3] Program operations include the following: transportation and communications (telephone, courier, travel including museum and site visits, conference attendance, professional association business, and travel for training and emergency services); information (printing, publishing and advertising); rentals; repairs and maintenance; equipment, material and supplies; and professional services (including contract work, consulting and advisory contracts).

[4] Earned revenues include, but are not limited to, Workshops and Publications (25,400) and Conservation and Scientific Services (645,268).