



Canadian
Conservation Institute

Institut canadien
de conservation

Canada



Annual Review 2011–2012

Canadian Conservation Institute





2011–2012 ANNUAL REVIEW

► Asefeh Yazdankhah-Kenari, (*Left*) CCI post-graduate intern in conservation, is stitching around original fragments from one of the two colours of the Third Regiment of York Militia to secure them in place between two nets. The colours were used during the War of 1812 and entrusted by the City of Toronto to CCI for treatment. The treatments of the two colours were a priority for the client and CCI, given their significance as part of the 200th anniversary of the War of 1812. The Institute appreciated the contribution of this young conservation professional. Moreover, this work was excellent hands-on experience for her as an emerging professional—an essential element of CCI's Professional Development.

► The king's colour of the Third Regiment of York Militia (*Right*) is essentially a Union Jack, but it does not fit the standard pattern of a Union Jack and lacks the usual royal cipher in the centre. Although it appears to be small, the existing portion, which is shown, measures 1.75 m (69 in.) by 2 m (79 in.). When the missing fly end is reproduced, the flag will extend to approximately 2.35 m (92-93 in.).



ANNUAL REVIEW OBJECTIVE:

Through this Annual Review, the Canadian Conservation Institute (CCI) presents results achieved in 2011–2012 to the Department of Canadian Heritage, to CCI clients and partners in Canada and around the world, and to the Canadian public.

CCI'S MISSION

Through its expertise in conservation science, treatment, and preventive conservation, CCI supports heritage institutions and professionals in conserving Canada's heritage collections so they are accessible now and in the future.

To achieve its mission, CCI organizes its operations under three business lines:

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. **equitable provision of expert services**, including scientific services, conservation treatments, and preservation advisory services, to heritage institutions and professionals
3. **dissemination 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

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represented by the Chief Operating Officer of the
Canadian Conservation Institute, 2012



Message From Minister

As Minister of Canadian Heritage and Official Languages, I am pleased to present the 2011–2012 Annual Review of the Canadian Conservation Institute. The Review reports on the Institute's activities and achievements and describes how it is responding to the needs of Canada's heritage professionals and institutions.

These institutions—the museums, art galleries, archives, and historic sites located throughout the country—are responsible for preserving our cultural heritage for current and future generations. The Institute supports them through its conservation and advisory services, research and development, publications, and professional development activities.

This year marks the start of the five-year countdown to Canada's 150th birthday in 2017. As we celebrate important milestones such as the 200th anniversary of the War of 1812, I would also like to congratulate the Canadian Conservation Institute, on behalf of Prime Minister Stephen Harper and the Government of Canada, on its 40 years of leadership in the field of conservation and the preservation of our heritage. Thanks to the efforts described and illustrated in this review, Canadians have a deeper, more informed understanding of our country and its rich history and culture.

The Honourable James Moore



Director General's Message

Anniversaries like CCI's upcoming 40th have a lot in common with conservation—they provide the opportunity to examine past history, assess and consolidate the present state, and develop a plan for the future.

One example of the similarity between an anniversary and conservation is CCI's work, first in 1997 and again in 2011-2012, to help preserve a notably significant Canadian artifact: the 1670 Royal Charter of the Hudson's Bay Company. The Charter granted exclusive trading rights over Rupert's Land (the territory encompassing all rivers that flow into the Hudson Bay) to what is now the Hudson's Bay Company, the oldest incorporated merchandising company in the English-speaking world.

In 1997, a team of experts recorded the Charter's appearance, composition and state of deterioration before it went into a new, permanent display at the company's Toronto headquarters. This work was part of a larger private sector project of study, analysis and preservation, and involved the design and construction of a new glass display case with a low-oxygen atmosphere, and a pair of wooden doors to shield the charter from continuous exposure to light.

In 2011-2012, the Charter was again brought to CCI for scientific examination to assess its current condition, measure the extent of deterioration, and determine whether or not the display case had been effective after 14 years of anoxic storage. Work included comparing data such as parchment shrinkage and colour degradation values with data acquired by CCI in 1997, and carrying out upgrades on the display case.

Similarly, we are also examining CCI after 40 years of serving heritage institutions and professionals in Canada, considering our present state, and preparing for the future. Guiding us is the first [formal evaluation](#) of CCI completed in 2011-2012 by the [Department of Canadian Heritage](#). Covering the period 2003-2004 to 2008-2009, the evaluation involved interviews with 44 key informants in Canada and around the world and a survey of CCI clients and non-clients. It also included a literature review and a detailed examination (case studies) of 6 completed projects.

In preparation for its 40th anniversary, CCI also helped celebrate special anniversaries in the history of Canada. We provided conservation services on several artifacts from the War of 1812: two regimental banners from the City of Toronto Museum, one from the Museum of New Brunswick, and aquatints from the Art Gallery of Nova Scotia (see the Corporate Initiatives Section – War of 1812 Highlights for more details on our work to support this anniversary). We also provided preservation advice for *The Hamilton* and *The Scourge* in Hamilton, Ontario. We will continue to proactively seek out heritage objects and works of art that represent other major anniversaries leading up to the 150th anniversary of Confederation in 2017. CCI will also continue its work to preserve the heritage interiors of the Parliamentary Precinct buildings—arguably some of the nation's most treasured heritage buildings.



This past year, we continued to emphasize sharing the results of our research, and producing and disseminating information and tools that will assist heritage professionals and institutions in the preservation of their collections and help make them safely accessible to their communities. Highlights from 2011-2012 include CCI's international symposium, "[Adhesives and Consolidants for Conservation: Research and Applications](#)," which was attended by 269 conservators, scientists and heritage professionals from around the world. We completed a major overhaul of the CCI website to better serve clients by helping them find the resources they need. This included a new look, improved website architecture and increased number of links to content both within the site as well as to external resources. We also strengthened our internal capacity to gain information about the resources, learning materials, and services our clients need and access most.

The results of our scientific research were disseminated in a variety of forms, including a book on Riopelle published by the Getty Conservation Institute, and two articles on the longevity and preservation of popular digital storage media, published in *Restaurator*, one of the world's most important journals on conservation of library and archival materials.

Looking to the future, we will implement the major recommendation emerging from the evaluation: to develop a 5-year strategic plan, to be finalized in early 2014. We must ensure that this plan will address the priority needs of heritage professionals and institutions in Canada. Our central question is: What should CCI do to focus its knowledge and expertise to ensure the greatest impact on preservation and access to significant heritage collections in Canada? The plan will include a long-term research plan, a framework for delivering expert services, an integrated approach to professional development, and a talent management plan to ensure that we have the right experts in place to achieve our strategic objectives.

Our first step is to engage our clients and partners in a focused discussion to identify the current and future challenges heritage institutions and professionals face in preserving their collections and making them safely accessible. We will then need to determine the most effective way CCI can address these challenges, either directly or working through or with other sources of support and expertise.

We look forward to hearing your views.

Jeanne E. Inch
Director General and Chief Operating Officer CCI

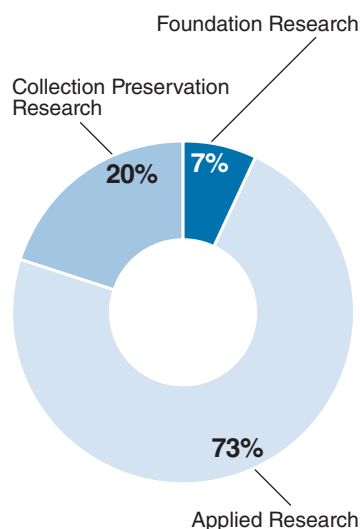


RESEARCH AND DEVELOPMENT

Performance in 2011–2012

ACTIVITIES – OUTPUTS:

40 projects were active in Foundation Research, Applied Research, and Collection Preservation Research; 38 partners (26 Canadian and 12 foreign) contributed to CCI research and development projects.



PERFORMANCE INDICATORS:

INDICATOR	RESULTS IN 2011–2012
Canadian and international community has access to the results of CCI research and development activities	<ul style="list-style-type: none"> • 19 scientific and technical articles and 1 book authored by CCI staff were published externally <ul style="list-style-type: none"> » 3 articles in Canadian publications » 15 articles and one book published by foreign publishers
	<ul style="list-style-type: none"> • 14 scientific and technical presentations were given to professional conservation audiences <ul style="list-style-type: none"> » 4 presentations at Canadian conferences / educational institutions » 10 presentations at international conferences / educational institutions

RESEARCH AND DEVELOPMENT HIGHLIGHTS

The Effects of Fumigants on Proteinaceous Material of Museum Objects

Tom Strang, Senior Conservation Scientist, participated in an international conference entitled *A Pest Odyssey 2011: Ten Years Later* as a follow-up to the highly successful conference of the same name held in 2001. The purpose of the international conference was to discuss several topics related to pest management in the heritage field, including how Integrated Pest Management (IPM) has developed over the past ten years, and the application opportunities for practical control strategies in all types of heritage contexts. Strang, along with his Japanese collaborators, delivered the following presentations:

- » Efficacy, Effects, Economics: The problem of distributing pest control advice to cover contingency; and
- » Effects of Fumigants and Non-chemical Treatments on DNA Molecules and Proteins: Case studies on natural history specimens and proteinaceous components of museum objects.

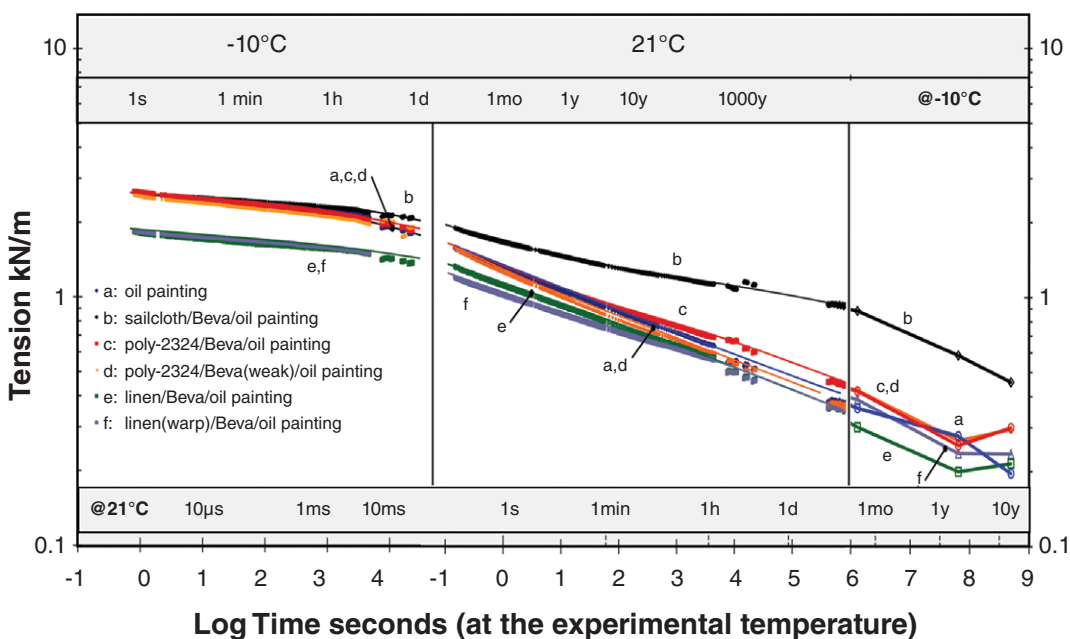
Featuring other international speakers, the event was organized by the Institute of Conservation (Icon) Care of Collections Group in the United Kingdom in partnership with the British Museum and a wide range of other institutions. The conference was an opportunity to share new understandings about pest species and the risks they pose, and acted as a platform to demonstrate how successful training programs have raised the profile of IPM within and beyond the heritage sector.

CCI Lining Project

Recent emphasis on sustainable climate guidelines for museums and the growing popularity of travelling exhibitions have refocused attention on the need for conservators to make the most appropriate choice of lining fabric to reduce the sensitivities of paintings to climate fluctuations in galleries and to shocks during transit. In 2011-2012, the CCI Lining Project, led by Debra Daly Hartin, Senior Fine Arts Conservator, focused on building a more compact, precise, and automated apparatus for testing different types of linings. The tension and subsequent stress-relaxation, in response to fluctuations in temperature and humidity, were measured in a lined and unlined standardized oil painting. The research found that polyester sailcloth was the only lining able to carry most of the tension in the majority of situations, but even it cannot protect an oil painting during transit shocks at low temperatures. Results were presented and published in the proceedings of the 16th Triennial Conference of the International Council of Museums - Committee for Conservation (ICOM-CC), 2011.



▲ Lining materials differ in their ability to reduce defects, such as disfiguring cupping along cracks, as seen in this painting



▲ Master graph of tension data for painting used as model for testing and various linings

KUDOS CORNER

At that time, and until now, (...) we felt we were not justified in defining a new sub-class of the class I ambers. (...) CCI results now show that our samples were not unique and hence that definition of enantio-series polyabdanoid ambers that include succinic acid as Class Id is now justified. I congratulate you on a most interesting observation and I look forward to seeing your results when they are published! ¹

University Professor,
Geology Department, USA

¹ For more details on this type of Canadian amber, see the reference on page 22 to the published article, "Class Id Resinite from Canada: A New Sub-Class Containing Succinic Acid," or the [CCI Annual Review 2010-2011](#).



KUDOS CORNER

(...) [The research of CCI scientists makes] it possible to follow the artist's evolution from a perspective that, while unusual, certainly attests to Riopelle's constant search for technical innovation, showing how and to what extent he used the properties (fluidity, resistance) of the materials to stimulate his own creativity. Lastly, the diagrams produced from the spectroscopic analyses (...) are also useful tools for specialists and museum professionals (...)²

Book Review, Vie des Arts, no. 226, Spring 2012

² For more details on this CCI research on Riopelle, see the reference to the book published by the Getty Conservation Institute, referenced on page 21.

Preservation of Digital Media

The challenges related to the preservation of digital media and of the information of historic and cultural value it contains are becoming increasingly difficult due to the volume of digital information and the imperative to ensure long-term access. CCI's research aims to examine the effects of various storage conditions on digital material. Experiments on extreme cold storage of VHS tapes and CDs/DVDs and on the effects of jewel cases and their accompanying paper inserts on CDs/DVDs have indicated variability between media and storage techniques. Senior Conservation Scientist Joe Iraci's results were published in two articles and offered recommendations for storage under the referenced conditions ["The Cold Storage of CD, DVD, and VHS Tape Media." *Restaurator* 32, 2 (2011), pp. 81-109, and "The Effects of Jewel Cases on the Stability of Optical Disc Media." *Restaurator* 33, 1 (2012), pp. 17-47].



◀ CD corrosion intercept holding tray with transfer of CD label

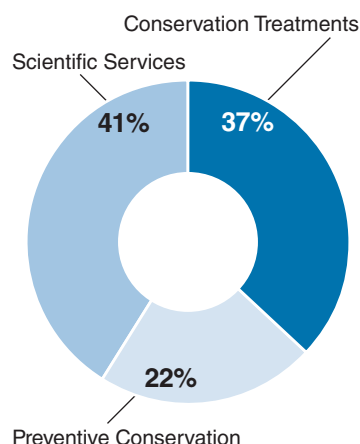


EXPERT SERVICES

Performance in 2011–2012

ACTIVITIES – OUTPUTS:

CCI staff completed 325 service transactions for clients, including scientific analyses, conservation treatments, and collection and facility assessments. In total, 335 collections and/or objects belonging to 211 Canadian institutions across Canada were better preserved through these services.



PERFORMANCE INDICATORS:

INDICATOR	RESULTS IN 2011–2012
CCI expert services are used by heritage institutions to preserve their collections	<ul style="list-style-type: none"> 325 expert services were used for collections and objects preservation
Heritage institutions use CCI expert services to preserve their collections	<ul style="list-style-type: none"> 211 institutions received 325 expert services to preserve collections and objects
Heritage collections and objects whose preservation is supported by CCI expert services	<ul style="list-style-type: none"> 335 collections and/or objects benefited from expert services <ul style="list-style-type: none"> » 54 collections were assessed and/or analyzed » 36 heritage facilities were evaluated » 101 objects were assessed and/or analyzed » 125 objects and 19 collections were treated

EXPERT SERVICES HIGHLIGHTS

Conservation and Treatment Services

English Secretary Desk

CCI's furniture conservators, led by Amanda Salmon, Assistant Furniture Conservator, treated an early 18th century English secretary (1710) representative of the unique production style of the Queen Anne period. The Musée des beaux-arts de Montréal has a very small collection of furniture representative of this time and has never been able to exhibit the desk.

After the secretary was cleaned, CCI conservators stabilized loose veneer and moldings. Mismatched moldings from old repairs were fixed and missing parts were replaced using European walnut to improve the desk's overall structural appearance. The untouched authentic finish was discovered in a protected area of the secretary and the materials identified by scientific analysis. Based on this analysis, the original appearance was carefully reinstated and is very different from the glossy later finishes that had been applied in the 19th and 20th centuries.

Several secret drawers for the private letters and journals of the owners were discovered during the project. These drawers are released by hidden springs and kept the prying eyes of servants away from the intimate details of the lives of the master or mistress of the house.

The secretary will now be exhibited in the permanent collection of the Musée des beaux-arts de Montréal.



▲ Secretary upon arrival at CCI, disassembled.



▲ After treatment, and re-assembled

Poster-board Celebrating the Enthronement of Emperor Hiroshito, 1928

In 2011-2012, a significant piece of Japanese-Canadian history from the Japanese Canadian National Museum and Archives, now called the Nikkei National Museum and Cultural Centre, was entrusted for treatment to CCI's paper/photo conservators, led by Greg Hill, Senior Photo-Archives Conservator. The poster-board, created in celebration of the enthronement of Japanese Emperor Hiroshito, is one of the primary documents recording many Issei (first generation Japanese Canadians) living in Canada at the time.

The deteriorated poster-board had suffered from moisture and mishandling. The conservation treatment began with mould remediation and surface cleaning, followed by the removal of all elements from the original panel and the creation of a new facsimile backing panel simulating the original. Surfaces were further cleaned, paper was washed, photographic emulsions extensively repaired and retouched, and all elements were attached to a new panel. The long-term survival of this object, and access to it, are now ensured.



▲ Before treatment



▲ During treatment



Resolute Bay - High Arctic Thule Project

CCI archaeology laboratory conservators and interns, led by Tara Grant, Archaeology Conservator, treated a unique collection of 42 artifacts excavated from an archaeological site in the vicinity of Resolute Bay in Nunavut. The artifacts were gathered by Dr. S. Hazell of McGill University and her team, which included several Inuit interns from the community. The extremely fragile artifacts were cleaned, consolidated, dried, reconstructed, and re-adhered as required to preserve them for future analysis and for public interest/education. The materials are estimated to be 500-800 years old; radiocarbon dating will be used to determine the date more accurately.

The excavation is the part of the High Arctic Thule Project that aims to determine the motivation for, and timing of, the Thule (Ancestral Inuit) migration from Alaska to the High Arctic.

Thule Fish Lance



▲ Before treatment



▲ After treatment

Thule lamp stand



▲ Before treatment



▲ After treatment



KUDOS CORNER

It is 10 pm. 814 folio books are off to the freezer! The mould was isolated successfully. Next stop, Montréal for freeze drying. (...) CCI's support was amazing.

*Conservator,
Public Municipal Library*

Maliseet Cap

A team of CCI textile conservators and conservation interns, led by Renée Dancause, Textiles Conservator, treated a Maliseet Cap, from the Fredericton Region Museum, New Brunswick. After assessing the condition of the cap, an example of Native beadwork, several vulnerable areas requiring stabilization were identified. Using a working mount to assist in keeping the cap in a 3-D shape, the team secured loose beads and stitched on a new silk crepe binding at the edge of the cap to prevent further loss and fragmentation. New fabric was tinted with acrylic fabric paints to match the colour of the lining which was then used to repair areas of loss and wear. Finally, a padded, fabric-covered mount was constructed and placed on a custom Plexiglas base along with a dust cover to protect the artifact in storage.



▲ Before treatment



▲ After treatment

Scientific Services

The Royal Charter of the Hudson's Bay Company, 1670

Two different teams of conservation scientists contributed to the long-term preservation of the Royal Charter of the Hudson's Bay Company (Charter). The first team, led by Season Tse, Senior Conservation Scientist, performed scientific examination, micro-sampling and non-destructive testing of the Charter to assess its physical and chemical state; and the second team, led by Eric Hagan, Conservation Scientist, assessed the effectiveness of its storage/display case.

Scientific examination revealed that while the core of the parchment (below the surface) was in excellent condition, the surface was more deteriorated. This deterioration could have been caused by handling, exposure to oxygen, light and/or atmospheric pollutants. The most deteriorated areas are those with inscriptions in iron gall inks which are well-known for causing corrosion of paper and parchment. In the case of the Charter, the surface layers with these inks are very fragile. This fragility probably caused the losses seen on the document, from previous rolling, unrolling and mechanical abrasion of the parchment. Conservation scientists also found that the parchment and inks on the Charter are still sensitive to light. Therefore, long exposures in high intensity light will not only cause the parchment to further deteriorate, but they will also lighten its colour, as well as darken and change the colour of the inks. To preserve the Charter in its current condition, it needs to be kept from exposure to high intensity light for long periods. For future examination and study, CCI's high resolution images will be invaluable to the Hudson's Bay Company in reducing the need to unroll the Charter, thus minimizing further ink loss.

The second team of CCI experts, with the advice and assistance of a conservation scientist from the Getty Conservation Institute, carried out an assessment of the Charter's display case. Designed and built by a private sector conservator in 1997, it was the first anoxic case built in Canada. Examination revealed that some of the seals had failed. Modifications were made to the case to ensure a low-oxygen environment. The mount for the Charter was also modified to secure the parchment roll and the fragile seal. Keeping the Charter in an anoxic, humidity-controlled environment will minimize deterioration and help ensure its longevity.



KUDOS CORNER

I would like to thank you (...for the analysis report). It was particularly interesting to learn that the medium of the paint layers was PVA-based, while a monograph on the artist, which included a description of his technique for a similar work, made no reference to PVA.

Conservator,
Public Museum



▲ Sampling for thermal microscopy



▲ Evaluating the Charter's display case

Modern Paint Media

CCI conservation scientists, led by Senior Conservation Scientists Kate Helwig (2 projects) and Elizabeth Moffatt (1 project), undertook analysis of paint media on several mid-20th century paintings exhibiting conservation issues such as solvent sensitivity or lack of adhesion. *Elegy Study*, a work on paper by Robert Motherwell dating from 1954 (in the collection of the Art Gallery of Ontario) contains a light grey application with poor adhesion to the paint beneath. It was not known if the medium was acrylic or oil. The paint was identified as having a drying oil medium and the poor adhesion was related to the high concentration of zinc soaps in the paint. Two works by Quebec artists in the collection of the Musée d'art contemporain de Montréal, *Coulée* by Fernand Toupin, dating from 1964, and *Passage bleu* by Fernand Leduc, dating from 1967, showed high sensitivity to solvents. In both cases, the paint medium was found to be based on poly (vinyl acetate).

Knowledge of the paint medium is useful for the conservation treatments and for our understanding about these artists' techniques; *Coulée* was previously thought to have an acrylic medium and the medium of *Passage bleu* was described as oil.



KUDOS CORNER

We have been using your Risk Assessment Report with success. Security cameras have been approved in the City's 2011 capital budget, and I am also working on getting funds for the ceiling restoration.

*Curator of Cultural Property,
Municipal Institution*

Ancient Adhesive Residues on Hunting Tools from Yukon Ice Patches

CCI conservation scientists, led by Kate Helwig, Senior Conservation Scientist, completed a study of ancient hafting adhesives on hunting tools from Southern Yukon ice patches. The work was presented at 'Frozen Pasts' – the 3rd International Glacial Archaeology Conference held in June 2012 in Whitehorse, Yukon.

Adhesive composed of spruce resin was identified on nine artifacts representing throwing dart technology. These artifacts cover a 5,000-year time period (7310 BP to 2050 BP). The spruce resin helped to secure the heavy stone points to the dart shafts. Adhesive was also used on a slotted antler point to hold microblades in the slots. On five artifacts, the spruce resin adhesive was a relatively pure, homogeneous material. On three chipped stone points, on the other hand, the spruce resin was mixed with red ochre. A fourth chipped stone point showed the use of spruce "callus" resin; this type of resin has a unique chemical signature. Although hafting adhesive was not often identified on artifacts representing bow and arrow technology, one birch arrow shaft with a split haft (dated to 620 BP), a relatively rare type of arrow in the Yukon ice patch collection, was found to have a spruce resin hafting adhesive in the split.

Preventive Conservation

Risk Assessment of Eldon House

Built in 1834 and managed by Museum London, Eldon House is one of the oldest houses in London, Ontario, and is one of Canada's premier examples of Georgian architecture. Through a site visit and comprehensive risk assessment, led by Irene Karsten, Preservation Development Advisor, CCI identified, analyzed, and evaluated the possible risks to both the Eldon House building and its collection. Experts then analyzed and proposed measures to reduce risks while keeping in mind associated costs. Using the data accumulated, CCI identified priority risks to the collection. Using this assessment, Eldon House heritage managers can plan collection preservation projects to target the risks most likely to cause the greatest loss in collective value.



▲ In addition to fire risks, Eldon House is also at risk of damage from tornadoes and severe storms due to its location

Lighting Assessment of Prince of Wales Northern Heritage Centre

CCI experts, led by Eric Hagan, Conservation Scientist, assessed the existing lighting system and provided cost and energy efficiency estimates for a proposed system upgrade for the Prince of Wales Northern Heritage Centre (PWNHC). The PWNHC has served as the central museum and archives of the Northwest Territories since opening in 1979, managing collections of objects and archival materials from the region and facilitating cultural programs for the territory. CCI's Preservation Services Division provided recommendations on the lighting design, taking into consideration current energy efficient products, costs and benefits associated with the implementation of those products, target lux levels for different regions of the museum, and various design issues.



▲ Windows with scenic views: Aviation Gallery (left); restaurant (right) of the Prince of Wales Northern Heritage Centre

James Eadie Mural

Painted in 1955, the James Eadie mural depicts the 1935 Regina Riot and the 1930s depression. James Eadie painted the mural on the walls of the Saskatchewan Mental Hospital where he was a patient at the time. During the 1950s, the hospital (later known as the Souris Valley Extended Care Centre), was known for its research and technology in the use of LSD and the treatment of schizophrenia and alcoholism. This historic building, of significance to the city of Weyburn, Saskatchewan, was torn down in May 2009. The mural was salvaged by the wrecking crew and brought to the Soo Line Historical Museum for treatment and permanent display.

Debra Daly Hartin, Senior Fine Arts Conservator, examined the painting and, with information from sample analysis by a CCI scientist, provided a report to the Soo Line Historical Museum on the painting's condition, treatment needs and general directions for its treatment and ongoing care.



© Niall McKenna/CBC

▲ Part of a mural by James Eadie, former patient of the Weyburn Mental Hospital, which closed in 2004 (Courtesy of CBC)

Conservation Master Plans for Parliament Hill (East and Centre Blocks)

CCI Heritage Interiors team, led by James Bourdeau, Manager of the Fine Arts, Furniture and Heritage Interiors Division, in collaboration with the Parliamentary Precinct Branch and the Heritage Conservation Directorate of Public Works and Government Services Canada (PWGSC), provided on-site materials and collections assessment and analysis and expert conservation advice that will contribute to the Heritage Conservation Master Plans and other planning instruments for the East and Centre Blocks on Parliament Hill in Ottawa, Ontario. A key role of CCI is to research, document and analyze the interior finishes/decorative elements of Museum Rooms and other heritages spaces in the East Block, and to assist with the planning of the move of heritage collections from the Centre Block in preparation for its emptying and scheduled rehabilitation in 2017-2018 as a Major Crown Project. The research will provide the basis for projects that contribute to the preservation, conservation and reinstatement of art and artifacts of the Parliament Hill buildings, recognized as a National Historic Site.



▲ Sir John A. Macdonald's Office, one of several Museum Rooms examined by CCI



▲ Privy Council Chamber, another Museum Room examined by CCI



▲ Sampling the cornice in the Governor General's Entrance



▲ Examining and characterizing heritage elements in Sir George Etienne Cartier's Office (currently under renovation)



SHARING CCI'S KNOWLEDGE — PROFESSIONAL DEVELOPMENT PROGRAMS

Performance in 2011–2012

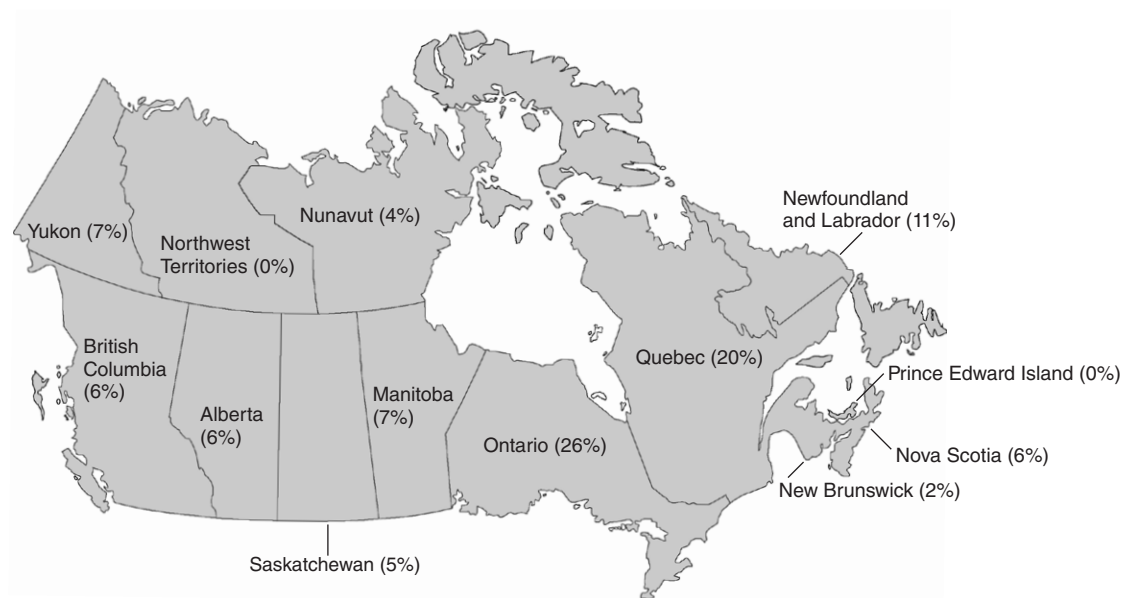
ACTIVITIES – OUTPUTS:

CCI conducted 39 professional development events (38 in Canada; 1 abroad, in Turkey). CCI knowledge was also shared through 10 lectures and papers presented by CCI's experts invited to Canadian and international partners' events. There were 1,081 participants (837 from Canada; 244 from 38 other countries) in professional development events organized or presented by CCI, including internships, lectures, conferences and the 2011 CCI symposium.

Regional workshops in Canada: 246 Canadian participants learned about care of collections on display, in storage, and in transit at 17 hands-on regional workshops delivered in 9 provinces and 2 territories. The most popular workshops were:

- » Emergency Preparedness (offered 5 times)
- » Environmental Guidelines (offered 2 times)
- » Preservation Management of Seasonal Museums (offered 2 times)

PERCENTAGE OF CCI WORKSHOP PARTICIPANTS FROM EACH PROVINCE OR TERRITORY





Advanced Professional Development workshops: 52 Canadian and 31 foreign conservators and other museum professionals attended 4 Advanced Professional Development workshops on technical and scientific aspects of conservation.

Internships: CCI provided 11 internships for Canadian conservation students or young professionals: 6 interns benefited from unpaid internships (one each in Conservation Science, Preservation Services, Heritage Interiors, Fine Arts, Paper, Photography, Textiles, and Archaeology); and 5 others benefited from paid internships, working for the Conservation Science, Preservation Services, and Objects, Archaeology, Paper and Textiles Divisions.

One of the paid interns worked full-time in the Archeology lab through the [Federal Student Work Experience Program \(FSWEP\)](#) and funded through the [CMA-RBC Museum Internship for Emerging Professionals](#).

CCI also accepted 6 foreign curriculum students for unpaid internships: 2 in Furniture Services and 1 each in Fine Arts, Archaeology, Paper and Preservation Services, to improve their theoretical and practical knowledge of conservation materials and treatment methods.

PERFORMANCE INDICATORS:

INDICATOR	RESULTS IN 2011–2012
Heritage institutions and heritage workers improved their professional knowledge, skills, and practices	<ul style="list-style-type: none"> • 55% of participants answered the training evaluation survey <ul style="list-style-type: none"> » 86% of them reported improvement » 71% reported significant and very significant knowledge improvement » 62% reported significant and very significant practice improvement; and » 59% reported significant and very significant skills improvement
Canadian and international heritage institutions and workers took part in CCI learning opportunities	<ul style="list-style-type: none"> • 384 heritage institutions benefited from CCI learning programs <ul style="list-style-type: none"> » 247 Canadian institutions » 137 foreign institutions • 604 individuals participated in CCI professional development programs <ul style="list-style-type: none"> » 431 from Canada » 173 from other countries • 471 individuals attended CCI lectures and papers presented during events held with partners <ul style="list-style-type: none"> » 400 from Canada » 71 from other countries



KUDOS CORNER

I once again would like to express my gratitude for inviting me as speaker and demonstrator to the CCI symposium. (...) I learned a lot in regard to conservation matters and methods and I enjoyed getting to talk to so many interesting and open-minded colleagues. (...) Above all it was great to get an insight into the working structure of the CCI, which I find very admirable due to its close collaboration of conservators and scientists.

*Conservator,
Museum in Germany*



Professional Development Highlights

Symposium 2011 – Adhesives and Consolidants for Conservation: Research and Applications

264 conservators, scientists and heritage professionals from around the world advanced their practical and theoretical knowledge about the use of adhesives and consolidants in all areas of conservation in October 2011 in Ottawa. Professionals who presented at the symposium came from 28 different countries, including Canada, and delivered 37 papers, 30 posters, and 13 demonstrations. Among these contributions, CCI staff presented 3 papers and 1 poster to the audience.



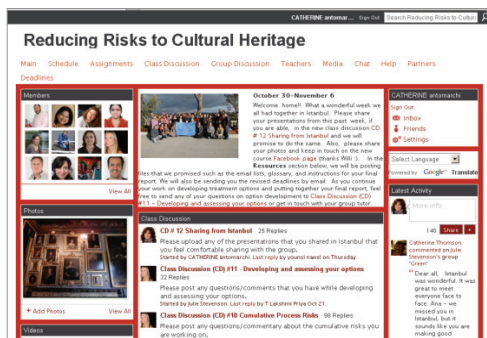
▲ Opening Ceremony held at Library and Archives Canada



▲ Demo Day: CCI conservator presenting a study set of adhesives used for backing leather.

Reducing Risks to Collections-blended learning workshop

This course was the fifth training initiative since 2005 on risk management of heritage collections to be delivered in partnership with ICCROM (International Centre for the Study of the Preservation and Restoration of Cultural Property) and the Netherlands Cultural Heritage Agency (RCE). However, for the first time, the 2011 course included a six-month distance-learning component to enable participants to apply the risk management approach in their own working and cultural context. It also included mentoring and a one-week face-to-face workshop in Istanbul, Turkey.



▲ CCI risk course online learning platform



▲ Workshop in Istanbul, Turkey



KUDOS CORNER

The Adhesives Symposium was an extremely well run week of sheer joy for most of the conservators who were able to attend. (...) One can only dream of being able to attend a future event of such high calibre, it really was a highlight in my career, thank you!

*Conservator,
United Kingdom Archival Institution*

The online component of the (Reducing Risks to Collections) course was fantastic for the ability to be able to read the contributions of others. It also allowed me a longer time to think about it—to have time to get into the methodology.

*Participant,
Advanced Professional
Development Workshop*



KUDOS CORNER

(Visitor Centre's Manager) mentioned how important the (Nunavut) conservation fly-in visit was from a training perspective, and how valuable the information Elisabeth Joy (CCI manager) provided about care of collections was to the centre.

*Heritage Consultant,
Private*

Exhibition Lighting

This Advanced Professional Development workshop addressed a dilemma that museums must deal with: the challenge of making objects on exhibition visible versus the need to minimize deterioration caused by light, in addition to pressures to reduce energy costs and become sustainable. Held in Ottawa in June 2011 and attended by 23 heritage professionals (20 from Canada and three from the United States and Germany), this 4-day workshop provided rigorous and practical advice about light damage to museum objects. CCI conservation scientists, led by Stefan Michalski, Senior Conservation Scientist, teamed up with Kit Cuttle, author of the acclaimed book *Lighting by Design*, and James Druzik of the Getty Conservation Institute, long-time researcher in the field of museum lighting, to deliver the workshop.



▲ Visit to Canadian Museum of Nature to discuss gallery lighting during the workshop

Care of Artifacts in Aboriginal Cultural Centres

This workshop, which focused on the preservation of material culture for staff or volunteers with little to no experience in the care of collections, was hosted in November 2011 by the Association of Nova Scotia Museums, and was attended by 18 participants representing 3 Aboriginal Cultural centres and 7 heritage institutions. Designed as an introduction to the care of Aboriginal collections, the workshop covered how various types of materials deteriorate, how best to minimize this deterioration, how to identify problems of storage and display of various kinds of artifacts, and how to make informed choices relating to the long-term preservation of collections.

Inuit Heritage Trust: Preventive Conservation

Held at Gjoa Haven, Nunavut, in January 2012, this workshop introduced 11 participants to the theory and practice of preventive conservation of Inuit collections in storage or on display in the North. The workshop, delivered by Elisabeth Joy, Manager, Treatment and Collections, covered evaluating and minimizing risks to collections caused by the 10 agents of deterioration, conservation documentation, handling, and an overview of emergency preparedness.



▲ An image illustrating types of objects found in Inuit collections used in the preventive conservation workshop



SHARING CCI'S KNOWLEDGE — PUBLISHING AND ONLINE RESOURCES

Performance in 2011–2012

ACTIVITIES – OUTPUTS:

Publishing

Training materials: Every workshop includes valuable training materials for participants. In 2011-2012, more than 250 participants received such relevant materials, which they keep for future use to enable them to care for their objects and collections.

Print Publications: In addition to CCI's magazine (distributed in print to more than 3,000 subscribers), more than 600 CCI scientific and technical print publications were distributed, including 460 CCI publications sold in Canada (47%) and abroad (53%). The three most popular publications were:

1. *Lighting Methods for Photographing Museum Objects*
2. *Mount-making for Museum Objects*, Second Edition
3. *Metals and Corrosion: A Handbook for the Conservation Professional*

Online Learning Resources: There were 134,359 unique visitors to CCI's website who visited a total of 717,604 pages. Nearly 70,000 of these visitors consulted learning material documents designed for the heritage community.

Online Learning Resources represented 1,909 web pages and these pages were consulted 134,453 times. The most consulted online learning resources were *CCI Notes* (78,508 unique page views) and *Caring for* web pages (22,787 unique page views).

Top Three Online Learning Resources

1. *Caring for: Objects* (consulted 4,044 times)
2. *Caring for: Collections* (consulted 3,335 times)
3. *CDs and their Longevity - FAQ* (consulted 2,847 times)

Top Three CCI Notes

1. *Longevity of Recordable CDs and DVDs – CCI Notes 19/1* (consulted 1,715 times)
2. *The Cleaning, Polishing and Protective Waxing of Brass and Copper – CCI Notes 9/3* (consulted 2,030 times)
3. *Tannic Acid Treatment – CCI Notes 9/5* (consulted 1,592 times)

Library Services: In addition to supporting the research and library requirements of CCI staff (the library's primary clients), CCI's library staff handled 227 requests for service from external clients:

- » 140 books were loaned
- » 32 articles were distributed
- » 55 reference questions were answered



PERFORMANCE INDICATORS:

INDICATOR	RESULTS IN 2011–2012
Canadian and international heritage institutions and workers used CCI's learning opportunities	<ul style="list-style-type: none"> 1,909 online learning documents were consulted 134,453 times

Publications Highlights

REFLECTIONS on Conservation: In 2012, CCI proudly celebrates 40 years of serving clients, and preserving Canada's history. The third issue of CCI's Reflections magazine highlights the Institute's 40th anniversary, and, rather than taking a retrospective look back at CCI's history, looks to the future of conservation in Canada. The issue explores the challenges and opportunities of conservation science, the influences shaping the direction of conservation treatments, the evolution of preventive conservation, the conservation of heritage interiors, building knowledge and skills of heritage professionals—all within the global context of economic uncertainty, rapid technological change, globalization and climate change.



Online Symposium 2011 Proceedings:

All papers, posters and demonstrations presented at the Adhesives and Consolidants for Conservation Symposium in October 2011 were made accessible online on the [CCI Symposium web pages](#).



Conservation Guidelines for Outdoor Murals:

The revival of outdoor mural programs aims to revitalize cities and towns, reduce graffiti, provide positive programs for youth and troubled neighbourhoods, and attract new business and tourism. Given this revival, it is critical that communities ensure that their murals remain in good condition for their expected lifetime. In response to this need, CCI published a new online learning resource to assist heritage professionals and communities in their efforts to conserve outdoor murals. The publication includes content on planning and creating a new mural and on caring for an existing mural, and also proposes tools such as condition reports and inspection records. Additional references and resources are also provided.

CCI website new look and information architecture

In December 2011, CCI launched its revamped website, providing easier access to online learning resources with the *Caring for* section. This section consolidates basic, technical and scientific information for the general public and museum volunteers, for heritage workers and for conservation, archival and other professionals.



KUDOS CORNER

Your conservation guidelines for murals through the CCI website is fantastic and will provide much needed expertise to all the communities struggling with how to create lasting murals and how to maintain them. Thanks for all your hard work!

*Conservator,
Municipal Institution*



External Publications: 19 CCI scientists and conservators wrote or contributed to 15 articles in professional journals in science and conservation, and 1 book published externally (as identified in bold below).

Cooper, Mark A., Neil A. Ball, Frank C. Hawthorne, Werner H. Paar, Andrew C. Roberts, and **Elizabeth Moffatt**. "Georgerobinsonite, $\text{Pb}_4(\text{CrO}_4)_2(\text{OH})_2\text{FCl}$, a New Chromate Mineral from the Mammoth – St. Anthony Mine, Tiger, Pinal County, Arizona: Description and Crystal Structure." *The Canadian Mineralogist* 49 (2011), pp. 865-876.

Corbeil, Marie-Claude, Kate Helwig, and Jennifer Poulin. *Jean Paul Riopelle: The Artist's Materials*. Los Angeles: The Getty Conservation Institute, 2011.

Daly Hartin, Debra, Eric Hagan, Stefan Michalski, and Mylène Choquette. "CCI Lining Project: Testing of Lined Model Paintings from Fractions of Second to Decades." in *ICOM-CC Preprints, 16th Triennial Conference, Lisbon, 19-23 September 2011* (edited by Janet Bridgland). Portugal: Critério. CD-ROM, paper 1309.

Daly Hartin, Debra, Eric Hagan, Paul Marcon, Stefan Michalski, and Tom Strang. "Research and Development into Structural Treatments of Paintings: CCI Lining Project & CCI Octoprobe." in *ICOM-CC Paintings Working Group - Current Practice and Recent Developments in the Structural Conservation of Paintings on Canvas Supports Helsinki Metropolia University of Applied Sciences, Degree Programme in Conservation, Vantaa, Finland 16-18 September 2010*. Helsinki, Finland: Metropolia University of Applied Sciences. DVD.

Goltz, Douglas, and **Gregory Hill**. "Hyperspectral Imaging of Daguerreotypes." *Restaurator* 33, 1 (2012), pp. 1-16.

Hay, James. "Creating Steel Mounts for the Exhibition of Totem Poles." *Journal of the Canadian Association for Conservation* 36 (2011), pp. 29-38.

Heginbotham, Arlen, A. Bezur, M. Bouchard, J.M. Davis, K. Eremin, J.H. Frantz, L. Glinsman, L. Hayek, D. Hook, V. Kantarelou, A. Karydas, L. Lee, J. Mass, C. Matsen, McCarthy, M. McGath, A. Shugar, **Jane Sirois**, D. Smith, and R.J. Speakman. "An Evaluation of Inter-laboratory Reproducibility for Quantitative XRF of Historic Copper Alloys." pp. 244-255 in *METAL 2010, Proceedings of the Interim Meeting of the ICOM-CC Metal Working Group, Charleston, South Carolina 11-15 October 2010* (edited by P. Mardikian, C. Chemello, C. Watters and P. Hull). USA: Clemson University, 2011.

Iraci, Joe. "The Cold Storage of CD, DVD, and VHS Tape Media." *Restaurator* 32, 2 (2011), pp. 81–109.

Iraci, Joe. "The Effect of Jewel Cases on the Stability of Optical Disc Media." *Restaurator* 33, 1 (2012), pp. 17-47.

Kigawa, Rika, **Tom Strang**, Noriko Hayakawa, Naoto Yoshida, Hiroshi Kimura, and **Gregory Young**. "Investigation of Effects of Fumigants on Proteinaceous Components of Museum Objects (Muscle, Animal Glue and Silk) in Comparison with Other Non-chemical Pest Eradicating Measures." *Studies in Conservation* 56, 3 (2011), pp. 191-215.



KUDOS CORNER

The recent book by Carl Bigras, Mylène Choquette, and Jeremy Powell, *Lighting Methods for Museum Artifacts*, Ottawa: CCI, 2010, is particularly well illustrated and up to date.

AIC Guide to Digital Photography, Second Edition,
Chapter 6, Notes, p. 169

Kigawa, Rika, Noriko Hayakawa, **Tom Strang** and **Gregory Young**. "Effects of Fumigants and Non-chemical Treatments on DNA Molecules and Proteins: Case Studies on Natural History Specimens and Proteinaceous Components of Museum Objects." pp. 115-122 in *A Pest Odyssey 2011: Ten Years Later*. London: English Heritage.

Macleod, Ian D., and **Nancy E. Binnie**. "A Long-Term Study of Conservation Management and Corrosion of Shipwrecks in the Fathom Five Underwater National Park, Lake Huron, Canada." in *ICOM-CC Preprints, 16th Triennial Conference, Lisbon, 19-23 September 2011* (edited by Janet Bridgland). Portugal: Critério. CD-ROM, paper 0903.

Poulin, Jennifer, and **Kate Helwig**. "Class Id Resinite from Canada: A New Sub-Class Containing Succinic Acid." *Organic Geochemistry* 44 (2012), pp. 37–44.

Strang, Tom, and Rika Kigawa. "Efficacy, Effects, Economics: The Problem of Distributing Pest Control Advice to Cover Contingency." pp. 16-25 in *A Pest Odyssey 2011: Ten Years Later*. London: English Heritage.

Tétreault, Jean. "Sustainable Use of Coatings in Museums and Archives – Some Critical Observations." *e-Preservation Science* 8 (2011), pp. 39-48. www.morana-rtd.com/e-preservation-science/TOC.html

Tse, Season, Sherry Guild, Valeria Orlandini, and Maria Bedynski. "Microfade Testing of 19th Century Iron Gall Inks." pp. 167-180 in *American Institute for Conservation Textile Specialty Group Postprint, Volume 20*. Milwaukee: AIC, 2011.

Werner, Ute, **Lyndsie S. Selwyn**, Tom Stone, Ross W. McKinnon, Anne MacKay, and **Tara Grant**. "The Removal of Metal Soaps from Brass Beads on a Leather Belt." *Studies in Conservation* 57, 1 (2012), pp. 3-20.



CORPORATE INITIATIVES

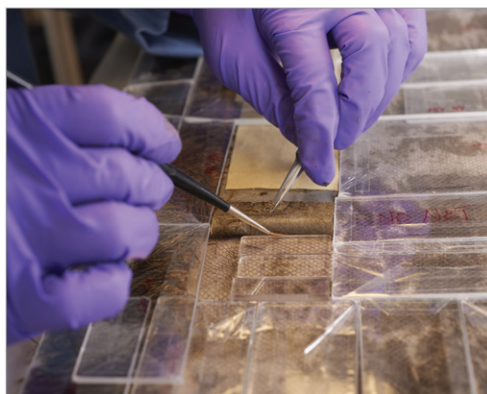
WAR OF 1812 HIGHLIGHTS

2012 marks the 200th anniversary of the War of 1812, an event considered to be among one of the most influential in shaping Canada as a nation. As part of the Government of Canada's initiatives to commemorate the War's Bicentennial, CCI treated a variety of historically significant artifacts from this period.

The colours of the Third Regiment of York Militia

A team of CCI scientists and conservators, led by Jan Vuori, Senior Textiles Conservator, treated two iconic flags from the War of 1812 known as the colours of the Third Regiment of York Militia. The primary purpose was to stabilize these companion objects, respectively referred to as the King's Colour and Regimental Colour, to ensure their survival for centuries to come. Canadian militia colours of this early period are very rare, especially because they were produced during the conflict and were most likely carried in battle at York in April 1813. Having been sewn by a group of women, of which some were identified, these flags provide a point of entry for exploring the larger roles of women both in the War and in colonial society in general.

Both flags are in the process of being fitted with custom rigid supports made from aluminum honeycomb panel, and will have pieces of fabric attached to the supports to visually compensate for missing areas. After further consolidation work is done, the militia colours will subsequently have a new piece of acrylic sheet installed to form a pressure mount for their display.



▲ Applying solvent remove tape



▲ Preparing to unroll new nylon net over one of the Third York Militia Regimental Colours

Southampton Beach Shipwreck archaeological site

CCI conservators, led by Tara Grant, Archaeology Conservator, have treated 130 artifacts collected from the *General Hunter*, since the initial 2004 excavation of this land-locked wreck in Southampton Beach, Lake Huron, as part of the Southampton Beach Shipwreck Project archaeological site. The British ship *General Hunter* was captured by the Americans in 1813 in the Battle of Lake Erie. Sold and renamed *Hunter*, the ship sank in 1816 during a storm. Among the 130 artifacts treated to date by CCI are a small cannon, a stove, a bayonet, a walking stick, coins and buttons, to name a few. Having arrived wet and dirty at CCI, the fragile artifacts were x-radiographed, cleaned, and surface coated when necessary.

War of 1812 Drum

A military snare drum from the War of 1812, known to be a war prize taken by Louis Vincent, a Huron-Wendat Native, after the Battle of Châteauguay in 1813, is being treated by CCI conservators, led by Carole Dignard, Senior Objects Conservator. In this significant battle, Louis Vincent and his brother Joseph were part of the 'Voltigeurs' volunteer army corps composed of Canadians and Natives, under the orders of Major de Salaberry. Canadian troops, numbering approximately 300, were vastly outnumbered by American troops, estimated at a few thousand. The Vincent brothers distinguished themselves during the battle by swimming across the Châteauguay River and capturing several American soldiers as prisoners.

CCI's treatment of the drum will consist primarily of the reshaping and repairing of the torn drum head.



▲ American Drum, one of several items left on the battlefield by the retreating Americans and recovered by the Vincent brothers of the "Voltigeurs"

Hamilton & Scourge National Historic site of Canada

The *Hamilton* and *Scourge*, originally merchant schooners known as the *Diana* and the *Lord Nelson*, were part of an American naval squadron during the War of 1812. The *Hamilton* took part in the American attack on the British base at Kingston, Upper Canada, in November 1812, while the *Scourge* remained at Sackets Harbour. Both schooners were part of the American squadron that attacked and captured York, Upper Canada, in April 1813, as well as Fort George at Niagara in May of the same year. Having sunk in a sudden squall, these two vessels are now described as being among the most significant historic shipwrecks in Canada, containing what may be the best preserved and intact warships from the War of 1812.

In 2012, CCI was recruited to the Hamilton-Scourge Archaeological Project, which aims to assess the condition of the historic site. Acting as technical advisors, CCI experts, led by Nancy Binnie, Senior Conservation Scientist, gathered information that will be used to inform future management and protection decisions regarding the ships. These sites have recently been exposed to a new threat—the arrival of several invasive biofouling mussel species. To help address this threat, CCI is identifying the effect of these invasive mussels and predicting their long-term effect on materials preservation.

Shannon and Chesapeake: 2 aquatints

Sherry Guild, Paper Conservator, treated two hand-coloured aquatints called *Shannon* and *Chesapeake*, depicting the battle between two ships of the same names several miles off the shore of Boston in June 1813. The American Frigate *Chesapeake* was captured by the British ship *Shannon* after 15 minutes of desperate fighting and towed to Halifax Harbour. These aquatints were issued in the immediate aftermath of the battle to satisfy public demand for mementos of the occasion.

The aquatints were in poor condition. The first step of the treatment was to remove the prints from wood strainers and remove old backing papers, residual adhesive and old masking tape layers. The aquatints were then surface cleaned, washed and light bleached. After being lined with Japanese paper using wheat starch paste, areas of loss and significant damage were inpainted. Finally, *Shannon* and *Chesapeake* were hinged and matted according to conservation guidelines.



▲ Before Treatment



▲ After Treatment

MEDIA AND PUBLIC RELATIONS

Broadcast of Société Radio-Canada's program "Découverte" featured CCI's research on Canadian artists' materials in general, and Jean Paul Riopelle's in particular. The program revealed how CCI's research, led by Marie-Claude Corbeil, Manager, Conservation Science Division, helped to refute the authenticity of a painting attributed to Riopelle using research carried out on the materials and techniques of Riopelle's paintings in public collections as well as on materials recovered from his studio.



▲ Marie-Claude Corbeil examining a painting of questionable attribution; Société Radio-Canada's crew filming scenes for "Découverte"



KUDOS CORNER

The two prints arrived safely (...) the team that worked on them have done a wonderful job. I know these were challenging paper works to conserve with many condition problems that tested the skills of numerous paper conservators. Please accept our sincere thanks and appreciation for making it possible to display these historically significant prints in our upcoming exhibition on the War of 1812.

Conservator,
Provincial Gallery



Yap Films, hired by the History Channel to produce documentaries on the War of 1812, visited CCI in June 2011 to record conservation work, led by Jan Vuori, Senior Textiles Conservator, on the colours of the Third Regiment of York Militia. Military flags like these, produced during the conflict and used in battle, are incredibly rare and significant.



◀ Crew from Yap Films shooting Textile conservators working on one of the War of 1812 flags



KUDOS CORNER

I never knew what you did here. I learned so much today about what's required to keep things on display and in good shape.

I have a complaint to make...you have too many incredible things to see!!

Maybe that's how museums get so perfect!

Various Visitors' Comments, Doors Open Ottawa 2011

Doors Open Ottawa: On June 4, 2011, CCI participated for the third time in *Doors Open Ottawa*. More than 400 visitors came for a behind-the-scenes look at CCI's operations—an increase of 43% in the number of visitors who came in 2010.



◀ 300th visitor to Doors Open receiving a CCI sweater.

CCI e-News: 826 new clients registered for *CCI e-News*. The distribution list now comprises 8,172 clients, of which 42% are from Canada and 58% are from other countries.

CLIENT SERVICES

CCI staff responded by telephone or e-mail to 1,062 requests for information, of which 821 were for scientific and/or technical advice.



HUMAN RESOURCES

Each year, CCI management recognizes employees who have made outstanding contributions to the work of the Institute.

CCI Technical Achievement Awards

Greg Young, Senior Conservation Scientist, was recognized for his contribution to the conservation treatment of one of the Third York Militia Regimental Colours, through his skilled use of software image analysis and image enhancement. He not only provided great visuals, but also useful quantitative information, such as percent of material lost (50%), location, number and average size of the fragments. The statistics and images have proven invaluable in providing accurate information for discussions with the client concerning conservation treatment options. The true extent of the flag fragmentation was identified, enabling the textile conservators to present realistic expectations for the flag treatment to the client.

Eric Hagan, Conservation Scientist, was recognized for designing and building a new testing apparatus for the Lining Project (see page 5). Initially, he intended to modify a previous version of the mechanical testing device within an environmental chamber; however, the experimental conditions required a complete rebuild. Eric designed and manufactured the custom parts for an upgraded system that is lightweight with increased functionality. CCI now has a unique apparatus capable of applying and releasing consistent incremental strain at the speed of transit shock simultaneously on 12 individual samples. Eric also added humidity and temperature control to the apparatus.

CCI Team Work Award

The CCI Team Work Award was presented to the many staff who worked on the Globes Treatment Project: Janet Mason, Sherry Guild, Kate Helwig, Jennifer Poulin, Carole Dignard, Wendy Baker, Tara Grant, Tom Stone, Emily Leonoff, Gloria Bertolissi, Colette Landry, Carl Bigras and Pascale Spees.

The team, led by Janet Mason, Objects Conservator, was responsible for the treatment of a pair of Cary Globes from the Bibliothèque du Séminaire de Saint-Hyacinthe. Sylvia Sumira, a globe conservator from the United Kingdom, provided invaluable advice on a treatment plan. Everyone assumed joint responsibility for work activities, coordinated efforts and accomplished shared goals with co-workers. It was a time of joyous collaboration, despite a very tight deadline, as everyone pulled together to ensure its success.

CCI DG Excellence Award

The DG Excellence Award was presented to members of the organizing committee for the highly successful Symposium 2011 – Adhesives and Consolidants for Conservation. This symposium was a success due to the commitment of CCI staff. Nearly every employee contributed in some way. Jane Down, Senior Conservation Scientist, was Program Chair, and Season Tse was Symposium Chair. The following were coordinators of the various functions and members of the symposium committee: Carole Dignard; Barbara Patterson; Lucie Paquette; Sherry Guild; Julie Stevenson; Cliff Cook; Shanna Stevens; Julie O'Brien; Pascale Spees; Wendy Baker; Bruce Gordon; Qiong Pei; Jade Cahoon; and Rachelle Thériault.

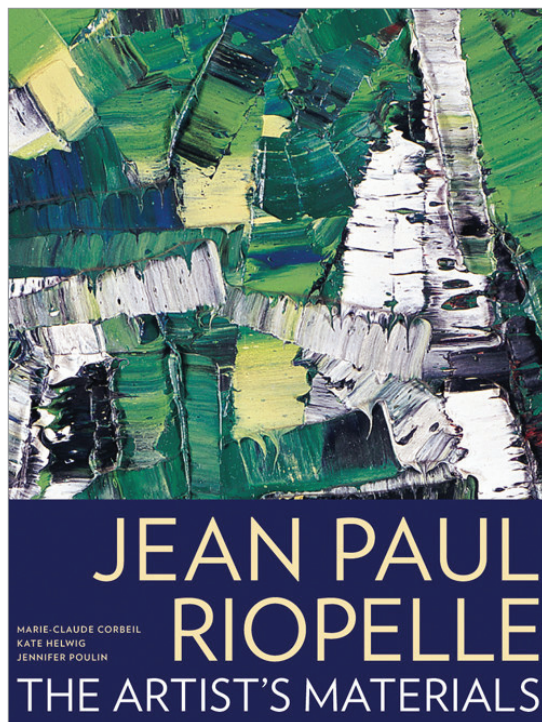


PARTNERSHIPS

Performance in 2011–2012

New Getty publication on Riopelle

CCI collaborated with the Getty Conservation Institute to publish the book [*Jean Paul Riopelle - The Artist's Materials*](#). Written by CCI scientists and published by the Getty Conservation Institute / Getty Publications in November 2011, this richly illustrated book is the first book-length study on Riopelle in English. This volume grew out of the CCI research project, led by Marie-Claude Corbeil, Manager, Conservation Science Division, on Riopelle's material and techniques, and focuses on his oil paintings and mixed media works.



©2011, J. Paul Getty Thrust

Teaching module on pigment technology and characterization-University of Bologna

Marie-Claude Corbeil, Manager, Conservation Science Division, taught a module on pigment technology and characterization (12 hours of lectures and 12 hours of laboratories) as part of a new Master's in *Science for the Conservation-Restoration of Cultural Heritage (SCoRe)*, University of Bologna, Italy (May 9-13, 2011). This Master's program provides much needed training for conservation scientists. CCI's participation was sought because of its expertise and provided an opportunity to develop training material for future teaching in Canada.

The module objective was to learn about the chemical composition, sources and production techniques of the most commonly used artists' pigments found on movable and immovable heritage (organic and inorganic, natural and synthetic), as well as about analytical methods commonly used for identifying these pigments.



KUDOS CORNER

The committee would like to thank Carole Dignard (CCI Senior Objects Conservator) for the exceptional job she has done as coordinator of the WG (Ethnographic Working Group of ICOM-CC) in the last 6 years. We are extremely grateful for her hard work. Among many other things we would like to highlight her commitment to the WG, and the way she promoted it in various spheres. (...) In addition, the membership enjoyed 6 years of on the spot information dissemination through her constant stream of information on resources, conferences and workshops.

ICOM-CC New Coordinator of "Ethnographic Collections"

My colleague (...) just briefed me about the very successful Seminar on Reducing Risks to Cultural Heritage which took place in Istanbul (...). On behalf of ICCROM, I have the great pleasure to thank CCI for its precious collaboration and support in the development and implementation of our "Risk" collaboration. In particular today, I wish to commend the outstanding work of your colleagues, Mrs. Irene Karsten, Mrs. Julie Stevenson and Mr. Stefan Michalski, for their excellence in teaching, and their commitment.

*Director-General,
International Organization*

International Council of Museums – Committee for Conservation (ICOM-CC)

Two CCI experts finished their mandates at ICOM-CC: Marie-Claude Corbeil, Manager, Conservation Science Division, finished her 3-year term as Chair of ICOM-CC and presided over the 16th Triennial Conference held in Portugal in September 2011. Carole Dignard, Senior Objects Conservator, acted as coordinator of the ICOM-CC Working Group on Ethnographic Collections for the past 6 years.



▲ Marie-Claude Corbeil, Manager, Conservation Science Division, presiding over 16th Triennial Conference held in Portugal in September 2011



Financial Statement for 2011–2012

REVENUES	
Appropriation	7,507,090
Custody of real property to PCH-CCI	2,529,697
Vote-netted revenue ¹	500,000
Crown asset funds	3,142
Total – Operating budget	10,539,929
EARNED REVENUES	
Publications and library services	41,302
Conservation and scientific services	365,759
Total – Earned revenues	407,061
Total – Operating budget and earned revenues	10,946,990
EXPENDITURES	
Salaries	6,207,329
Building operations ²	1,733,851
Program operations ³	1,653,759
Total – Operating costs	3,387,610
Total – Expenditures	9,594,939
Refund – Vote-netted revenue	500,000
Total expenditures and refund of vote-netted revenue	10,094,939
Subtotal	852,051
Crown asset transfer to Fiscal Year 2012–2013⁴	0.00
Total balance	852,051

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 Custodian operating costs for CCI.

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

⁴ Unused funds for crown asset transferred to FY 2012–2013.