



**October 26 – 27, 2018**

**HERITAGE IN REVERSE**  
**Material Values, Waste and**  
**Deconstruction**

**Carleton University**  
**School of Indigenous & Canadian Studies**



Demolition discards



Heritage waste

# Introduction

Given the magnitude of waste generated by demolition, increasing attention is being paid in design, research and policy to partial or complete building deconstruction, and to methods for salvage and design with reclaimed materials. Built heritage conservation is often defined in opposition to processes of demolition. Despite this, conservation treatments — from rehabilitation to restoration — frequently involve a degree of demolition and deconstruction. These processes may generate quantities of ‘discarded’ building materials and components that are more or less explicitly managed as conservation decisions.

At the same time, ‘values-based conservation’ calls into question the relationship of heritage to ‘waste,’ often defined as the opposite of what has value. Recent scholarship on curated decay, toxic materials and urban mining introduce critical perspectives on alternate futures for built heritage. Increasing pressure to reduce waste and landfill production, to redefine all waste for reuse, are providing practical strategies. However gaps between critical waste and heritage theories, the emerging waste management practices and evolving policy frameworks, call for dialogues that foster more productive alliances.

The goal of this event is therefore to bring together individuals and organizations active in related areas of heritage conservation, urban, architectural and construction history, critical heritage and discard studies, building deconstruction, sustainable materials and waste management, in order to address possibilities for bridging between these areas as part of projects, policies, research or creative practices. The proposed structure frames discussions around site lessons, recent research, and emerging contexts of policy. Overarching questions include:

- What can be learned from deconstruction sites about materials reuse opportunities in heritage work?
- What does recent research tell us about possibilities of connecting heritage conservation with waste?
- Which policies can guide difficult conservation decisions in the context of demolition and salvage?

–Susan Ross

# Programme

**PUBLIC LECTURE / FRIDAY, OCTOBER 26, 2018**  
**19:00 – 21:00, TORY BUILDING, TB360**

Mark Gorgolewski, Ryerson University, Toronto

**> *Toronto Architecture in the Circular Economy: Reclaiming Building Resources***

**SYMPOSIUM / SATURDAY, OCTOBER 27, 2018**  
**CARLETON UNIVERSITY DUNTON TOWER, ROOM DT2017**

OTTAWA WALKING TOUR / 9:00 – 11:00 (OFF-CAMPUS)

LUNCH / 11:45 – 12:30

WELCOME / 12:30 – 12:45

Susan Ross, School of Indigenous and Canadian Studies, Carleton University, Ottawa

SITE LESSONS / 12:45 – 14:00

Chair Mark Gorgolewski, Ryerson University, Toronto

Bradley Guy, Catholic University, Washington, DC

**> *Towards a broader culture of reuse: Perspectives from US projects, policy and research***

Jennifer Corson, Solterre Design/Renovators Resource, Halifax

**> *Optimizing the reuse of heritage building stock***

Gerry Humphreys, Milestone Project Management, Winnipeg

**> *Deconstruction site strategies: Reusing materials in church adaptations***

RECENT RESEARCH / 14:00 – 15:15

Chair Victoria Angel, ERA Architects, Toronto

Alison Creba, Carleton University, Ottawa / Vrije Universiteit Brussel, Brussels

**> *On-site: Place-specific analysis of architectural deconstruction and material reuse***

Tina McCarthy, Boston College of Architecture, Boston

**> *Deconstructing the culture of demolition: Deconstruction as a preservation strategy***

Allison Arlotta, Columbia University, New York, NY

**> *Reciprocities in preservation and waste reduction: US policy context***

**BREAK**

EMERGING POLICY CONTEXTS / 15:30 – 16:45

Chair Sean Fraser, Toronto, ON

Christienne Uchiyama, Létourneau Heritage Consulting, Toronto

**> *Heritage triggers for reuse in the Ontario policy context***

Zahra Teshnizi, University of British Columbia, Vancouver

**> *Vancouver pre-1940 houses: A mine for old growth forest wood***

Chris Warden, MTBA Architects, Ottawa

**> *Building Resilience: Practical guidelines for the rehabilitation of existing buildings in Canada, applied to the Sir John A. Macdonald Building (former Bank of Montreal) in Ottawa***

CLOSING PANEL / 16:45 – 17:30

Co-chairs Mark Gorgolewski and Susan Ross

**> *Next stages***

# Biographies

## **Victoria Angel**, ERA Architects, Toronto , ON

Victoria Angel is an Associate and the Senior Heritage Planner at ERA Architects Inc. Prior to joining ERA, Victoria worked for Parks Canada, where she managed the development of the Canadian Register of Historic Places and subsequently served as the Manager of the Federal Heritage Buildings Review Office. Victoria has a Bachelor of Arts (Hons.) in Art History and a Master of Arts in Heritage Conservation, both from Carleton University. She has taught heritage conservation at the University of Victoria and at Carleton University, where she is an Adjunct Professor. She is also a Faculty Associate at the Willowbank School of Restoration Arts in Queenston, Ontario.

## **Allison Arlotta**, Columbia University, New York, NY

Allison Arlotta is an emerging voice in Heritage and Waste research. Her recent thesis, "Heritage and Material Reuse: The Reciprocal Relationship Between Preservation and Waste Reduction," was completed under the academic supervision of Chris Neville within Columbia University's Graduate School of Architecture, Planning and Preservation, Historic Preservation program. Her research deals with key themes of heritage, preservation, sustainability, reuse, deconstruction, salvage and values. She was awarded an Outstanding Thesis Award from Columbia's preservation faculty, and worked as a Data Fellow with New York City's Landmarks Preservation Commission. Allison presented at the Association for Preservation Technology Buffalo Niagara Conference: Points of Departure, as well as the Building Materials Reuse Association (BMRA)'s annual conference DeCon & Reuse '18, in Grand Rapids, Michigan.

## **Jennifer Corson**, Solterre Design/Renovators Resource, Halifax, NS

Jennifer Corson, architect, business owner and author of *The Resourceful Renovator*, published in 2000, is a senior partner in Solterre Design, a small, integrated firm that delivers energy-efficient renovations, historic restorations, and innovative off-grid residential and commercial construction. Her environmental enthusiasm was the creative inspiration for the nationally aired television program *The Resourceful Renovator*. Jennifer is also president of Renovators Resource Inc., an architectural salvage and dismantling business, and past chairperson of the North American non-profit, Used Building Materials Association, now BMRA. She has promoted recycling building materials at events across North America. She has won awards as an entrepreneur and her work has been recognized for achievements in sustainability from the Canadian Agreement for Sustainable Economic Development, Environment Canada, NRC, CMHC and the ScotiaBank Eco-Living Prize. She brings a long-term understanding to the possibilities of reuse in the Canadian context.

**Alison Creba**, Carleton University, Ottawa, ON / Vrije Universiteit Brussel, Brussels, BE  
Alison Creba has been conducting research on Waste and Heritage since she began her master's program at Carleton University in 2016. Through case studies and research internships she has pursued several broad and specific questions in the field. Her recent report, "New Paradigms, New Tools. A Research Report: Developing Digital Tools Utilizing Heritage Waste," chronicles findings from her internship with the Toronto firm, ERA Architects. In addition to presentations at DeCon & Reuse 17 in Portland, USA and CIPA's Digital Workflows for Heritage Conservation, Creba is participating in a six-month internship with the established Belgian deconstruction architecture firm, Rotor. Finally, in her Major Research Project (MRP), Creba made a case study of the deconstruction and demolition of the iconic Honest Ed's and Mirvish Village site in Toronto.

**Sean Fraser**, Toronto, ON

Sean Fraser brings to heritage work broad perspectives in diverse contexts stemming from work in policy, regulation, not-for-profit organizations, project management and teaching. Sean has worked across Canada and internationally in the field of cultural heritage conservation for over 25 years. Between 1996–2006 he participated on a number of archaeological excavations in the Middle East as project architect as well as supporting cultural tourism development projects in the region. Sean lectures on archaeology, sustainable design, sustainability, industrial heritage, cultural landscapes, heritage law, planning, professionalism and adaptive re-use at educational institutions and at conferences. He teaches online courses on Determining Significance of Heritage Resources and Heritage Conservation in Context at the University of Victoria in the Diploma in Cultural Resource Management. Formerly Director of Heritage Programs and Operations at Ontario Heritage Trust (2001–2017), he is currently the Director, Programs and Services, at the Ontario Ministry of Tourism, Culture and Sport. Sean brings ideas from his experiences in consulting, teaching and government to this event.

**Mark Gorgolewski**, Ryerson University, Toronto, ON

Mark Gorgolewski is Chair, Department of Architectural Science, Ryerson University, and the author of *Resource Salvation: The Architecture of Reuse* (2018). Mark is past director of the Canada Green Building Council (CaGBC) and former Chair of the Association for Environment Conscious Building in the UK. Mark was founding director of the graduate program in the building science of sustainable design. He has received many grants from public and private institutions to investigate issues of sustainable construction. His research areas include building performance assessment, sustainable housing, reuse of components and materials, and design for urban agriculture. Mark's interest is in the area of closed-loop systems applied to the built environment. This includes strategies to enhance the performance sustainability of construction materials, building products, buildings as well as urban environments. His work addresses the integration of energy, water, materials and urban food systems

**Bradley Guy**, Catholic University, Washington, DC

Bradley Guy is currently a Clinical Associate Professor, School of Architecture and Planning, The Catholic University of America (CUArch), Washington, DC. His research has focused on building deconstruction, sustainable and healthy materials, life cycle assessment, design to use reclaimed materials and adaptable design. His courses include design studio, design-build practicums, sustainable materials, ethical design, and sustainable design and the LEED rating system. Brad has received The Graham Foundation for Advanced Studies in the Fine Arts Research Fellowship and is currently a member of the LEED Social Equity Pilot Credit Working Group and the AIA Materials Knowledge Working Group. He is also an US ASTM TAG representative to ISO SC59/TC17 WG 1 Sustainable building for the development of standards for sustainable design, and design for deconstruction and adaptability. He was a member and Chair of the USGBC LEED Materials and Resources Technical Advisory Group during the development period for LEED v4. Brad was a co-editor for the book "Construction Ecology", and also wrote the on-line "Design for Disassembly in the Built Environment" guide for King County, WA. He has a M.S. in Architectural Studies from the University of Florida, and a B.Arch. from the University of Arizona, and is an Associate of the AIA and an USGBC LEED AP BD+C.

**Gerry Humphreys**, Milestone Project Management, Winnipeg, MB

Gerry Humphreys is the owner of Milestone Project Management, an environmentally responsible construction firm created in 1999 in Winnipeg, Manitoba. He is a C 2000 and LEED certified Construction Manager. Gerry has been a sessional instructor at the School of architecture of the University of Manitoba, and presented his work at the 2013 "Reclaim and Remake" workshop at Catholic University in Washington. MPM is cited by Gorgolewski as a model of reuse practice. The company promotes an integrated, participatory, and socially engaged construction process, and makes extensive use of salvaged building materials and components. A number of MPM's projects involved places of community value and sometimes heritage designations. These projects required a balance between social, economic and environmental objectives. He will bring a real-world perspective to discussions, both due to his practical experience on deconstruction and reuse sites, and his involvement in projects with very ambitious social programs.

**Tina McCarthy**, Boston College of Architecture, Boston, MA

Tina McCarthy is an emerging scholar in the field of Waste and Heritage. She recently defended her thesis, "Deconstructing the Culture of Demolition: Exploring Deconstruction as a Strategy for Historic Preservation," in the Boston Architectural College's Master of Design Studies in Historic Preservation program which focused on themes of heritage conservation, historic preservation, authenticity, sustainability, deconstruction and reuse from a policy perspective. She has presented her research at the Vernacular Architecture Forum, New England Chapter and at the APT Buffalo Niagara Conference as well as the Building Materials Reuse Association annual

conference DeCon and Reuse18, held this year in Grand Rapids, Michigan. In addition to her academic work, McCarthy is a skilled historic window restorer and has recently built a tiny house with salvaged materials.

**Susan Ross**, Carleton University, Ottawa, ON

Susan Ross is a licensed architect (OAQ, RAIC, LEED AP, FAPT) and assistant professor in the School of Indigenous and Canadian Studies, where she teaches courses in heritage conservation at the graduate and undergraduate levels, including an advanced seminar on Heritage Conservation and Sustainability. Susan has over twenty years professional experience in Montreal, Berlin and Ottawa. She has been active for over a decade in writing and teaching about heritage and sustainability with respect to: urban, modern and industrial landscapes; values ontologies, rating systems and heritage planning policies; and, environmental histories of materials, buildings and sites. She has presented on questions arising from the examination of heritage and waste at the Association for Critical Heritage Studies, the National Trust for Canada, and the Society for the Study of Architecture in Canada; her writing on heritage and waste, and sustainable heritage conservation more broadly, is covered in [www.wasteheritageresearch.wordpress.org](http://www.wasteheritageresearch.wordpress.org).

**Zahra Teshnizi**, University of British Columbia, Vancouver, BC

Zahra Teshnizi, is the research manager at UBC Sustainability Initiative and is in charge of the collaborative research projects with Vancouver Zero Emission Building Exchange. She is the author of “Opportunities and Regulatory Barriers for the Reuse of Salvaged Dimension Lumber from Pre-1940s Houses,” written as the City of Vancouver Greenest City Scholar in 2015. Zahra holds a Master in Advanced Studies in Architecture from the University of British Columbia with a focus on the influence of multiple stakeholders on sustainable use of construction materials throughout the building lifetime. She has a diverse background in project management, applied research and outreach, focusing on green buildings, sustainable development and design case studies, policies, guidelines, and tools. She is a Certified Passive House Designer and a LEED Green Associate and a steering committee member for the Living Future Vancouver Collaborative.

**Christienne Uchiyama**, Létourneau Heritage Consulting, Toronto, ON

Christienne Uchiyama is a Heritage Consultant and Archaeologist with more than a decade of experience working on heritage aspects of planning and development projects. Ms. Uchiyama received her M.A. in Heritage Conservation from the Carleton University School of Canadian Studies in 2012. She has written, as lead author or co-author, more than 100 technical cultural heritage reports, including: archaeological license reports; collections management materials; inventories; cultural heritage evaluation reports; and heritage impact assessments. She has worked on development projects ranging from individual properties to large-scale energy and resource extraction projects. She has a great deal of experience working

with multi-disciplinary teams, providing advice on compliance with heritage policies and legislation, on development and planning proposals, and has been involved in development proposals at all levels of government.

**Chris Warden**, Senior Associate, Architect, MTBA, Ottawa, ON

Chris Warden (OAA, RAIC, CAHP, LEED AP, APT) has over 13 years of experience in the Architecture and Conservation fields. He earned both a Master of Architecture (2005) and Bachelor of Architectural Studies (2003) from Carleton University, and a certificate in Masonry Conservation (2013) from Willowbank School of Restoration Arts. Warden's developing expertise includes creative reuse of heritage buildings while still maintaining their heritage character value. Chris brings experience to Mark Thompson Brandt Architect & Associates that includes a range of project types for residential, commercial, industrial and institutional clients including the award-winning Sir John A. Macdonald Building rehabilitation. Along with firm principal Mark Thompson Brandt, Chris is the co-author of *Building Resilience: Practical Guidelines for the Sustainable Rehabilitation of Existing Buildings in Canada*. Chris is also chair of Docomomo Ontario, the Ontario working party of the international organization for documentation and conservation of monuments of the Modern movement, and curator of Capital Modern, an online resource focused on Modern-era buildings in Canada's Capital Region.

## Texts by the speakers

- Arlotta, Allison Iris. "Locating Heritage Value in the Reciprocal Relationship Between Preservation and Waste Reduction." Columbia University, Masters of Science in Historic Preservation. Thesis, 2018.
- Corson, Jennifer. *The Resourceful Renovator, A Gallery of Ideas for Reusing Building Materials*. Toronto: Key Porter Books, 2000.
- Creba, Alison. "New Paradigms, New Tools: A Research Report. Developing Digital Tools Utilizing Heritage Waste." Carleton University. June 2018.
- Gorgolewski, Mark. *Resource Salvation: The Architecture of Reuse*. Hoboken/Chichester: Wiley Blackwell, 2018.
- Guy, Brad, and Robert H. Falk. *Unbuilding: Salvaging the Architectural Treasures of Unwanted Houses*. Newton, CT: Taunton Press, 2007.
- McCarthy, Tina. "Deconstructing the Culture of Demolition: Exploring Deconstruction as a Strategy for Historic Preservation." Boston Architectural College, Masters of Design Studies in Historic Preservation. Thesis, 2018.
- Parks Canada/MTBA. *Building Resilience: Practical Guidelines for the Sustainable Rehabilitation of Buildings in Canada*. 2016.
- Ross, Susan. "Keyword: Deconstruction Waste (Buildings)." *Discard Studies*. 2017.
- Teshnizi, Zahra S.H. "Opportunities and Regulatory Barriers for the Reuse of Salvaged Dimension Lumber from Pre-1940s Houses." City of Vancouver Greenest City Scholar. Vancouver: City of Vancouver, 2015.
- Uchiyama, Christienne. "Waste of Place: Heritage Conservation and the Environmental Assessment." Carleton University Graduate Student Heritage Conservation Symposium: The Many Voices of Heritage, 2012.

Additional references by the speakers and others are found here:  
[wasteheritageresearch.wordpress.com](http://wasteheritageresearch.wordpress.com)

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# Acknowledgements

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- NSERC-CREATE Heritage Engineering and CLUE
- Carleton University Library

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- Milestone Project Management, Winnipeg
- Ryerson University, Toronto
- Solterre Design, Halifax

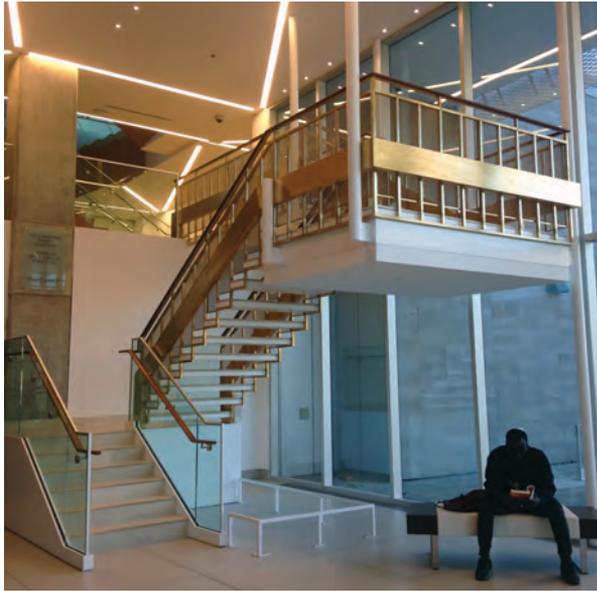
This symposium is taking place on the unceded traditional territory of the Algonquin Nation (*Omàmiwininiwag*). Thank you (*Migwetch*) to our hosts for being the stewards of all this land has offered — and continues to offer — to its inhabitants. Their stewardship existed for many centuries before we began talking about heritage conservation and sustainable building. –SR

## Symposium venues

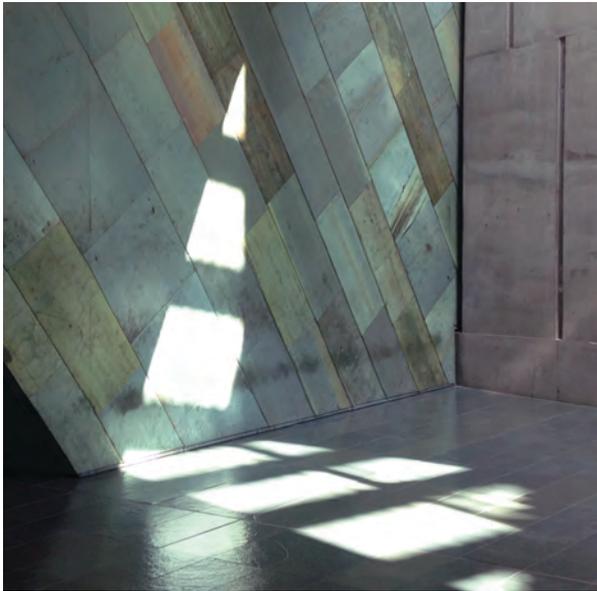
The Friday evening lecture takes place in the Tory Building's 'Egg' auditorium, one of Carleton University's original teaching spaces (Architects Collaborative, 1959). It opened the same year the Rideau River campus was inaugurated. The receptions before and after the lecture will take place in the lobby outside the auditorium, where you can appreciate Gerald Trottier's *Pilgrimage of Man* mosaic-covered curved wall (1962), which was restored as part of the building's rehabilitation (Cuhaci Architects, 2004).

The 'paper part' of the symposium takes place on Saturday afternoon on the 20th floor of the university's Dunton Tower (Murray and Murray, 1970). Situated in the tallest structure on the campus, one of the best features of this building are its views out over the Rideau Canal (1827), now a UNESCO World Heritage Site, and towards the Central Experimental Farm (1887), now a National Historic Site of Canada. Further north are views of downtown Ottawa and the Gatineau Hills of Quebec.

Ottawa materials reuse sites: The Saturday symposium includes a walking tour in the morning. During the walk, we will visit a few local examples of material re-use to foster discussion '*in situ*'. This will include the Firestone House (Sam Gitterman, 1960) stair integrated in the new **Ottawa Art Gallery** (2018), and the copper from the Library of Parliament (1866) re-used in the **Canadian War Museum** (Moriyama and Teshima, with GRC Architects, 2005). These and other examples of the reuse of materials in contexts of complex symbolism in Ottawa will continue to inform the discussion throughout the day. A related annotated map is also available.



Modern spolia Firestone House stair , Ottawa Art Gallery



Transposed values Canadian War Museum

