**HINDSIGHT 2020** will explore heritage conservation’s disruptive role in a 21st century defined by resource scarcity, climate change and sustainability. In an era seeking heroic solutions, historic preservation provides transformative ideas, highlighting the importance of adaptation, minimal intervention, reversibility and maintainability. While Edmonton is the research, refining and manufacturing heart of the Canadian oil industry, it is also a hotbed of environmental innovation and activism. **HINDSIGHT 2020** will be hosted by a vibrant historic city at the very forefront of the climate crisis, one wrestling with its petroleum legacy and the imperative to transition to a low-carbon future.

Building on the success of Ottawa 2017, the Association for Preservation Technology International and the National Trust for Canada (in association with the Canadian Association of Heritage Professionals) have collaborated again to present **HINDSIGHT 2020**. Architects, engineers, planners, craftspeople, policy makers, preservationists and heritage volunteers will come together to share the best in technology, policy and techniques for conserving and renewing heritage buildings, communities, engineering works and landscapes.

North America’s northern-most metropolis, Edmonton is a richly layered heritage place offering much as an urban laboratory. The city is a traditional meeting ground and home for many Indigenous Peoples – including Cree, Saulteaux, Blackfoot, Nakota Sioux and Métis. From a pivotal fur trade centre in the 18th century, it became Alberta’s capital in 1905 and is now a provincial hub for education, industry and culture. Edmonton’s captivating mix of cultural heritage includes heritage districts, diverse places of faith, industrial sites and icons of the early modern era. These, along with Edmonton’s spectacular river valley and the nearby Ukrainian Cultural Heritage Village – a Canadian leader in conserving vernacular buildings and craft techniques – provide an ideal setting to inspire collaborative conversation throughout the conference.
The five tracks of HINDSIGHT 2020 explore the intersection of technical, design, policy and community issues. The conference organizers seek dynamic presentations that provide compelling insights, principles, lessons and solutions that others can apply in their projects and communities.

**Track 1  Picturing the Past: Heritage Documentation, Diagnostics and Modelling**

The documentation of cultural heritage and the corresponding development of specialized information-gathering tools and techniques continues to enjoy explosions of innovation, in the realms of both tangible and intangible resources. Added to this, considerations around the appropriate collection, processing and management of documentation data are changing and responding to technical advancements and to evolving notions of what constitutes heritage value. Recognizing the importance of collaboration between the providers and users of documentation technologies, this track explores the rationale, ethical considerations and strategies for heritage documentation. How can we improve the dissemination, sharing, management and usefulness of documentation data?

Potential topics may include:

- **Evolving Documentation Strategies** – Examining how tools and methods of gathering and storing documentation have changed over time; how combining historical and modern methods informs best practice for survey and documentation of heritage places today.

- **Documentation and Data for Community Benefit** – Demonstrating the utilization of documentation technologies for rapid survey and identification of significant heritage resources; using documentation tools and technologies to assess condition, inform life cycle analyses and develop appropriate cyclical maintenance programs for heritage places.

- **Diagnostics to See the Unseen** – Contrasting non-destructive evaluation with other, more intrusive methods to determine condition and establish scope of work; demonstrating state of the art tools that aid or automate assessment, confirm chemical composition and inform appropriate interventions.

- **Dark or Intangible Heritage** – Innovative and sensitive approaches to documenting, conserving and interpreting lost places and stories of intangible resources (e.g. relocated or lost communities, events, stories, traditions, former uses), sites or layers of conscience (e.g. hospitals, institutional complexes, residential schools, internment camps or policies of oppression); emphasizing strategies that help to convey sense of place.

- **Digging in the Archives** – Discussing effective migration of archival data and records of previous interventions; integrating digital and analog data within modern building management tools (e.g. BIM).
• **The Heritage Experience** – Demonstrating the ways rapidly growing 3D digital and mobile technologies (e.g. Augmented Reality and Virtual Reality) are being used to interpret and present the stories of heritage places in a compelling and relevant way.

**Track 2  Materials Conservation for the Future: Tradition, Sustainability and Innovation**

This track considers multiple facets of modern materials conservation, including the evolving regulatory standards and considerations of sustainability relating to the production and use of heritage materials; the importance and influence of traditional arts and crafts training contrasted with contemporary architectural and engineering; and the role of education generally in the design and execution of appropriate interventions to heritage places. Also of interest are the roles that scientific analysis, materials testing and digital modeling can play in ensuring compatibility and re-treatability, and in supporting a renewed culture of maintenance. How can detailed understanding, collaboration and effective knowledge transfer among all members of the project team improve conservation outcomes?

Potential topics may include:

- **How Much is Too Much?** – Developing strategies to overcome the challenges presented by insufficient historical data, or the desire to quantify performance through extensive laboratory testing; comparing the relative advantages, philosophically and performance-wise, of traditional versus modern approaches to conservation repairs.
- **Understanding the Authentic** – Deepening collective understanding of the history and relevance of traditional arts and crafts and architectural practice in a 'new world' context; examining the challenges of sourcing local and traditional materials versus imported or modern materials, particularly where local sources have been depleted or lost.
- **Disrupting Destruction and Rebuilding** – Using traditional skills and materials to support a renewed culture of repair and maintenance; confronting the opportunities and challenges presented by circular economy goals or “urban mining” (e.g. utilizing construction waste or reused heritage materials); making conservation approaches the new normal for present and future generations of craftspeople, design professionals and building owners.
- **Scientific Analysis and Understanding** – Examining key analytical techniques for evaluating the performance of heritage materials and assemblies; utilizing investigative tools and techniques to establish compatibility of repairs; examining the considerations of digitally modeling traditional buildings and assemblies.
- **Heritage Education and Training: The Past is the Future** – Outstanding examples of research, education and training that emphasize traditional knowledge, skills and materials; highlighting the benefits of retaining and transmitting traditional craft practice for present and future generations; emphasizing the importance of developing heritage-specific training in trade colleges and universities.
Track 3  Climate and Heritage in Crisis: Integrating Old and New in Buildings and Communities

The urgent need to respond to the climate crisis is putting unprecedented pressure on historic places: intensification goals are accelerating teardowns and infill in historic areas; robust zero-net carbon goals could, ironically, precipitate a wave of heritage materials sent to landfill. At the same time, the conservation theories, standards and policies guiding decision-making are not up to the challenge, resulting in increased frustration and tension among regulatory authorities, design practitioners and communities. Where does value lie, and what constitutes quality, context-sensitive design? How do we balance and integrate ecological and heritage benefits within this new environment and get beyond either-or solutions?

Potential topics may include:

- **Intensification and Mitigation** – Managing and creating sensitive density in historic areas; assessing and understanding the potential downsides of density; balancing energy retrofit (e.g. zero-net carbon) and heritage goals at the building and district scale.

- **Additions and Infill** – Physical and visual issues that arise in adaptive reuse, additions to significant heritage buildings and interventions to historic urban fabric; examples of best practice for inserting new buildings, layers and uses into communities and cultural landscapes while maintaining heritage value and visual character.

- **Challenging Conservation Principles** – Applying and updating conservation theory and guidelines; saving and designating places that are too important to lose; ensuring completed interventions conserve heritage fabric and retain what we value; strategies to prepare for loss when climate impact mitigation is no longer possible.

- **Intervening with Urgency** – Minimal intervention case studies on a community or site specific level that invite reflection on a range of conservation strategies (e.g. degrees of façade and fabric retention, building relocation or “materials mining”); key approaches to addressing the climate crisis and examining the challenges and opportunities for heritage conservation within a circular economy.

- **Heritage Engineering for the Future** – Addressing the need to develop heritage-specific training and education for tradespeople and design professionals at the college and university level; weighing the significant impacts that structural, energy and life safety upgrades can impose on historic buildings; compelling case studies demonstrating how conservation outcomes can be improved by engineering models, energy modeling and simulation tools.

- **Revitalizing the Modern** – Renewing and reinventing modern structures (e.g. apartment towers and office complexes); examining appropriate strategies for saving and rehabilitating significant buildings of the modern era; highlighting conflicts that arise in attempting to balance heritage and energy conservation goals.

Track 4  Radical Regeneration: Business, Policy and Practice in Urban and Rural Communities
The historic preservation “climate” is shaped in part by the interplay between community concerns, development industry goals, and professional practice considerations while government policies, regulations and standards continue to influence what is possible, which projects get done and how we measure successful outcomes. This track focuses on overcoming the challenges of reusing heritage resources in urban and rural environments – from systemic and financial to conceptual – and highlights the ways heritage conservation can support community revitalization. Case studies of particular interest in the track may be projects that are vast in scale, challenging, purpose-built or requiring significant funding or creative uses to be saved.

Potential topics may include:

- **Heritage Policy and Property Development** – Exploring the technical, financial, and marketplace considerations that enable or discourage heritage-led revitalization; examining the ways public policy measures can impact heritage-led development (e.g. the need for progressive codes, meaningful incentives, and demolition waste fees); seizing the pivotal role that collaborative, multi-disciplinary approaches can play in improving outcomes for heritage reuse projects.
- **Rural Heritage Renaissance** – Overcoming the technical, financial, community or human resource challenges in preserving heritage in remote area contexts (e.g. limited access to design professionals); examples of heritage helping to arrest rural depopulation (e.g. via heritage tourism).
- **Districts, Main Streets and Historic Sites** – Progressive business models, innovative technical solutions, creative financing and other approaches to encourage regeneration efforts – particularly in areas of social and economic challenge.
- **Dirty and Disparate Stories** – Leveraging the legacy of historic industries and redundant places to recognize heritage values and regenerate communities; overcoming the challenges of remediating hazardous or contaminated sites; case studies illustrating inventive conservation and adaptation of industrial, institutional, or agricultural heritage sites (e.g. bridges and aqueducts, industrial buildings and sites, transportation infrastructure and grain elevators).
- **From Redundancy to Opportunity** – Balancing social and environmental benefits of heritage conservation with return on investment; demonstrating the benefits of leveraging historic sites (e.g. places of faith, house museums) to support regeneration of urban and rural communities.
- **Ordinary and Everyday Modern and Suburbia** – Assessing, validating and maintaining the heritage and ecological values of ordinary and everyday modern buildings; strategies for sensitive infill (e.g. laneway housing) in early modern suburban neighborhoods that maintain visual character and heritage values.

**Track 5 New Heritage Imperatives: Inclusion, Renewal and Expanding Relevance**

While the heritage conservation movement has succeeded in empowering people and inspiring them to protect and share the meanings of places that matter, many perspectives and traditions - particularly those of Indigenous Peoples - have not been given fair or equitable
consideration. This track explores the future of heritage and how new societal imperatives can help to disrupt existing priorities and paradigms. What are the roles and responsibilities of heritage practitioners, advocates, elected officials and others in creating an inclusive culture of conservation within communities? How can we emphasize the importance of heritage conservation in achieving broader societal goals?

Potential topics may include:

- **Data and Metrics** – Emerging tools to calculate and communicate the benefits of reusing and rehabilitating heritage places (e.g. environmental, economic, human and social); analyzing the tension between conservation approaches, energy codes and green rating systems; highlighting exemplary policy that supports conservation-focused activities; providing tools to quantify key indicators (e.g. success or loss rates).

- **Heritage, Equality, and Social Purpose** – Heritage projects actively addressing social concerns (e.g. affordable housing, social cohesion, public health); mitigating the forces of gentrification that can arise with revitalization; case studies utilizing site sharing and co-management as a means to satisfy sustainability goals.

- **Indigenous Heritage, Climate Crisis and Reconciliation** – Climate crisis adaptation strategies for Indigenous cultural landscapes; Indigenous heritage places supporting reconciliation in communities (e.g. reinvention, public engagement); examining the role of Indigenous issues in the context of urban revitalization initiatives; understanding and sustaining Indigenous sites of conscience and places with contested histories.

- **Integrating Diversity** – Adapting and transforming existing buildings and cultural landscapes to integrate cultural, religious, gender or class diversities; initiatives leveraging “lost places” for social impact (e.g. marginalized communities lost to “urban renewal”); contrasting past and present approaches to Indigenous cultural heritage within the narrative of heritage places; sensitively integrating accessibility measures in historic buildings and sites.

- **Building Grassroots Support and Community Engagement** – Innovative examples of community action in creating successful interventions to heritage places; strategies for building grassroots support for heritage (e.g. via social media); exemplary heritage advocacy and awareness initiatives that emphasize the links between heritage conservation and broader goals of sustainability.