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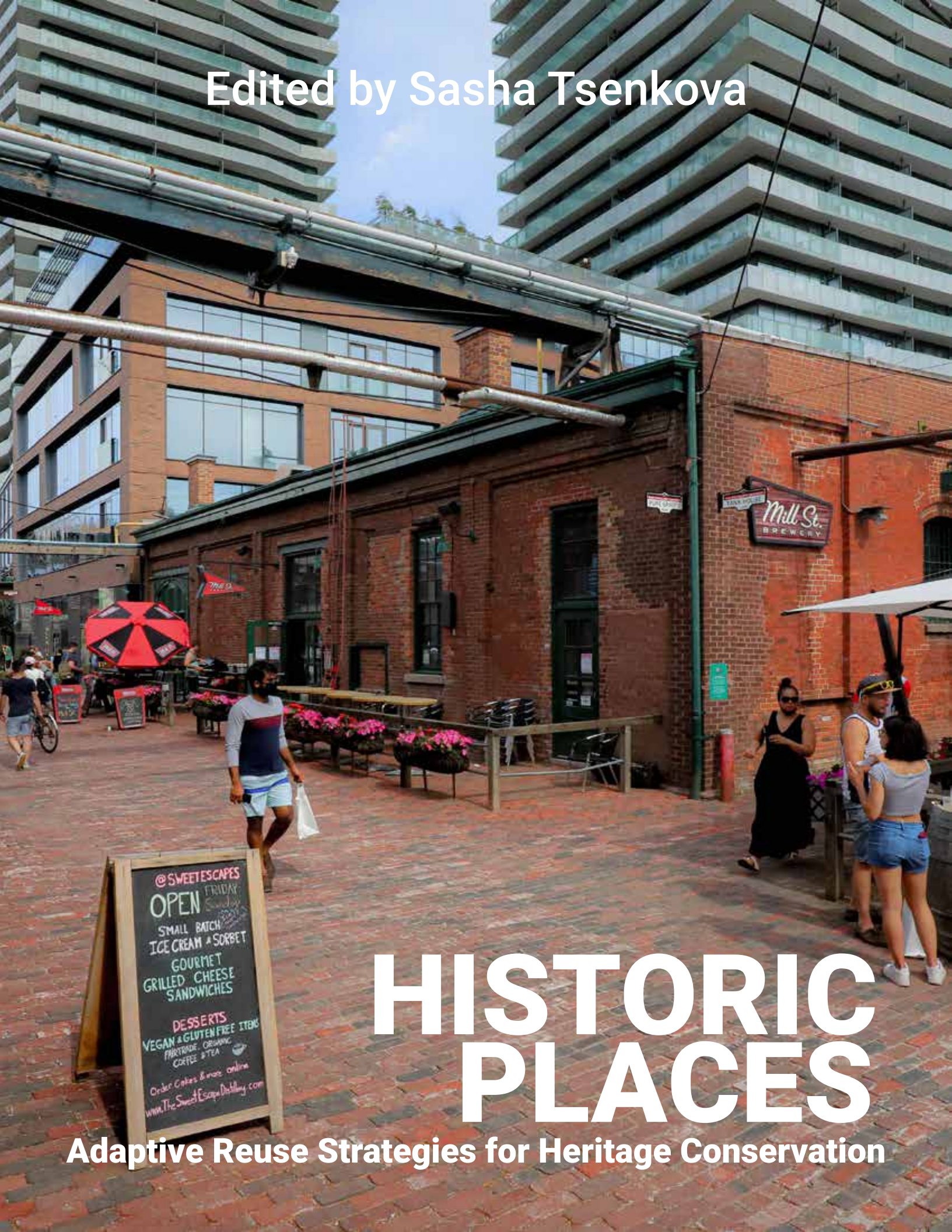

HISTORIC PLACES

Adaptive Reuse Strategies for Heritage Conservation

HISTORIC PLACES:

ADAPTIVE REUSE STRATEGIES FOR HERITAGE CONSERVATION

Cities, Policy & Planning

research series

Historic Places / edited by Sasha Tsenkova

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UNIVERSITY OF CALGARY
SCHOOL OF ARCHITECTURE,
PLANNING AND LANDSCAPE

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Preface

Capitalizing on Heritage

Sasha Tsenkova

Historic Places is a thematic collection of case studies inspired by diverse and innovative planning efforts to preserve and enhance the heritage legacy of Canadian historic places. Propelled by a growing commitment to sustainability, creative planning intervention and a blend of grassroots and public projects, heritage-led regeneration is transforming the urban fabric of Canadian cities and is creating a dynamic new civic identity. The book explores heritage planning policy and practice in Canadian cities with a focus on adaptive reuse. It builds on a variety of experiences across Canada to examine how heritage reflects cultural diversity and contributes to the creation of economically vibrant and socially inclusive places.

Planners and architects have a vital role in heritage conservation practice and the implementation of *Standards and Guidelines for the Conservation of Historic Places in Canada*. The conservation activities (preservation, rehabilitation and restoration) are a sequence of actions progressing from understanding the historic place through inventory, planning for its conservation, and intervention. Heritage planning links a comprehensive understanding of an historic place with intervention that respects its heritage value, considers all factors affecting its future, the potential for economic and environmental impacts, available resources and external constraints. Interventions resulting in a physical change to historic places (forms, location, function and cultural associations), must respect and protect its heritage value.

Heritage planning and engagement are a key component of the *New Urban Agenda*, adopted by the United Nations in 2016. This policy document is going to guide global and national efforts for inclusive and vibrant cities. In this context, UNESCO's *Historic Urban Landscape Approach* has emerged as a significant shift in the planning and management of urban heritage. The approach centres on integrative approaches to urban development and heritage conservation and is a framework to reimagine the future of historic places in Canadian cities. The historic places featured in the book are wonderfully diverse and rich in their physical, social and cultural character and in the stories of their evolution. This is a selection of case studies explored by graduate students at the School of Architecture, Planning & Landscape at the University of Calgary in our *Built & Landscape Heritage Certificate* courses.

The research centers on adaptive reuse as a strategy for heritage conservation. Learning from best practices is a step in the design process in our heritage courses that culminate in a vision for the future of an historic place. Adaptive reuse is the conversion of a building, site or heritage district from one use to another. This should be consistent with the heritage value and should support the understanding of the heritage, giving it new life, social and economic opportunities. Adaptive reuse is an opportunity to retain the heritage fabric and is different from preservation. It can be part of heritage-led regeneration strategy for a whole district, can include temporary uses until a more permanent and economically viable strategy is in place and can incorporate additions/changes where certain character-defining elements are amplified. Designing the reuse brings the potential to add value to the public realm and to enhance the identity of a place/community.

The case studies in this collection explore the adaptive reuse at the scale of a building or small complex, but with consideration about the connecting spaces (park, public realm, access) that often enhance the heritage value and experience of an historic place. The students consider the heritage and cultural significance of the place, the nature of adaptive reuse (minimal change to the built fabric, uses/practices contributing to the historic significance of the place), and policies to sustain its future. We hope that this collection will contribute to the exciting exploration of historic places in Canadian cities and will inspire future design and planning strategies of heritage conservation.

Many heritage professionals, architects, planners and landscape architects have been instrumental in shaping the content and pedagogy of our *Built & Landscape Heritage Certificate* courses. The opportunity to apply the *Historic Urban Landscape Approach* in our design strategy for Currie's heritage was exceptional. The process recognizes and celebrates the diversity of heritage resources and advocates a robust process of identification, analysis, planning and management to sustainable urban conservation. Special thanks to Larry Pearson, Director of Historic Places Stewardship for the Historic Resources Management Branch of Alberta Culture and Tourism for his generous commitment, expertise and effort in bringing this important collection together. Chris Elkey, Vice President, Real Estate, Canada Lands Company was the best client for our design teams. His team at Currie provided important insights into heritage conservation practice, planning policies and implementation of heritage plans. Finally, we gratefully acknowledge the financial support of Alberta Historical Resources Foundation for our *Built & Landscape Heritage Certificate* courses, offering immense opportunities to students.

I am delighted to present this collection dedicated to adaptive reuse and heritage planning and hope that people will find it useful in future professional practice. Architects and planners can play a leading role in coordinated and comprehensive efforts to preserve historic places, re-energize downtowns and historic neighbourhoods while embracing the economic, cultural, social and environment values of community building.

Dr Sasha Tsenkova, FCIP
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1

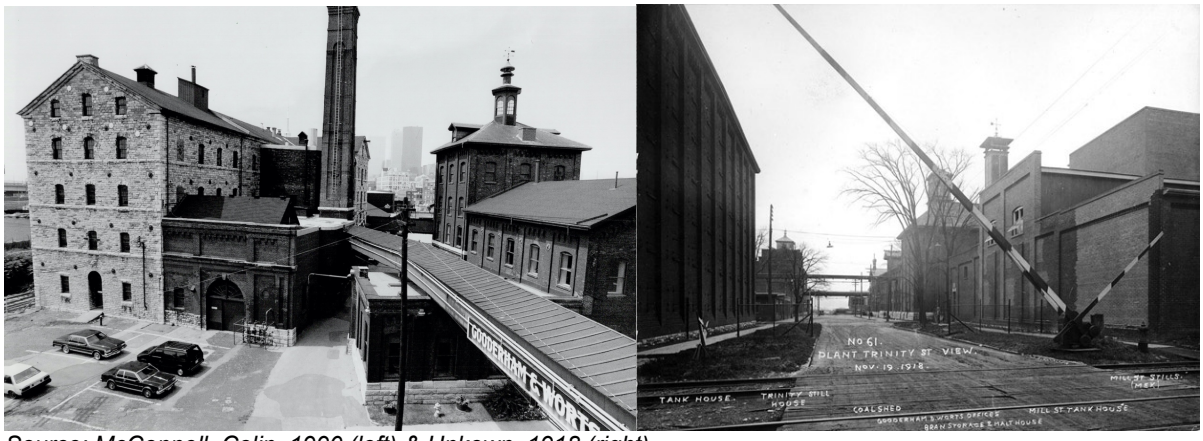
THE DISTILLERY HISTORIC DISTRICT IN TORONTO

Jeanette Burman

Introduction

Adaptive reuse of historic resources is a viable process of heritage conservation. In historically rich urban environments in growing North American cities, new developments often put built heritage at risk. Conversely, historic places are an increasingly attractive feature for developers who capitalize on their atmosphere and character. This chapter presents the adaptive reuse of Toronto's Distillery Historic District—discussing its historic significance and integrity and its present-day context. The research takes a closer look at Trinity Street, a historic public right-of-way of the 19th century Town of York (Allsopp & Hillier, 1994a). Trinity Street remains a central thoroughfare of the district for pedestrians and defines its revived public realm (Figure 1.1). Insights from the case study inform design considerations for Parade Square in Currie Barracks.

Figure 1.1: The Distillery Historic District Entry & Trinity Street



Source: McConnell, Colin, 1990 (left) & Unkown. 1918 (right)

Toronto's Distillery Historic District

Toronto's Distillery Historic District is "an imposing landmark, containing a number of buildings that collectively bear witness to the evolution of the Canadian distilling industry" (Parks Canada,

2005)1. The original site construction for Gooderham and Worts Distillery began in 1831 in what was then called York, Ontario. The distillery was founded by James Worts and was in operation from 1832 to 1987, closing completely in 1990[2]. Located on 13 acres of central urban land, it includes over 30 brick and stone industrial buildings constructed between 1859 and 1926. Architectural and design features of the buildings are recognized as significant in National heritage designations (Parks Canada, 2005). Character-defining elements of the Distillery District are not limited to the architectural quality of the buildings themselves. The spatial arrangement and organization of buildings along streets and lanes as well as their relation to adjacent infrastructure, such as the former shoreline of the Toronto Bay and existing rail line, are also significant (Parks Canada, 2005).

Figure 1.2: Access and Surrounding Area of the Distillery District

Source: Burman, adapted from Google Maps.

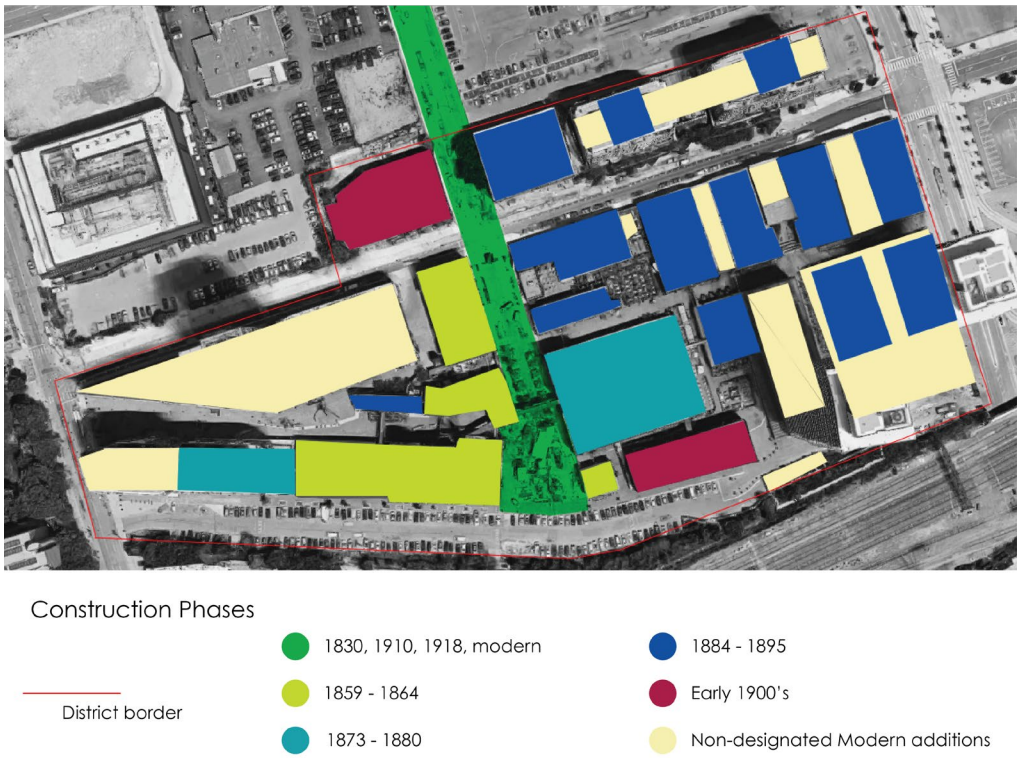
Although not formally designated, Trinity Street is a historic corridor that acts as a gateway to the district, a pedestrian thoroughfare, and a central gathering place within the city's public

[1] Municipal designation began in 1976 with subsequent designations in 1997 (City of Toronto, 2021); designation involved a series of easements. National designation occurred in 2005 (Parks Canada, 2005).

[2] Post-closure, the distillery site was largely in disuse with the exception of being a production location for the film 'Chicago' in 2001 (The Distillery Historic District, 2020).

realm. Figure 1.2 illustrates the wider context of the heritage district and its connection to transit, parks and dedicated bike lanes.

Figure 1.3: Distillery District Buildings and Trinity Street Construction Phases



Source: Burman, adapted from Google maps using data from Distillery Historic District (2013) & Allsopp and Hillier (1994b).

Most of the building date back to the 1884-1895 period, as well as the 1860s, illustrating Toronto's boom in industrial development and growth (Figure 1.3). These are fine examples of early industrial architecture in Canada and the *Statements of Significance* acknowledge their versatile styles. Character-defining features include fenestration, pitched roofs, turrets, chimneystacks and coordinated palette of material and paint colours. Special consideration is given to construction, functional designs; and architectural features on individual buildings such as neoclassical elements of the office buildings, distillery, and mill as well as the overall form and massing of the buildings (Parks Canada, 2005).

Adaptive Reuse

In 2001, Cityscape Development Corporation (CDC) purchased the Toronto Distillery District property and began heritage preservation and arts-led regeneration for culture and entertainment purposes (Mathews, 2010). The conservation effort was a heritage preservation mega-project, marking a collective effort to reimagine the future of heritage in Toronto according to social values (Joo, 2016). It is the location of 22 arts and culture organizations, over 40 shopping boutiques, and 20 food and beverage establishments, including Mill Street Brewery, which continues the site's legacy of beverage production. Historic buildings adapted for

residential uses, as well as newly built homes have provided increased density and supported mixed use of commercial properties. Adapting the site for present day operations involved conservation efforts of over 350,000 square feet of heritage space, removing any renovations post-1950s, exposing original brick and plaster as well as salvaging original lumber for use as furniture and new walls (Heritage Toronto, 2020).

The conservation of the heritage district adheres to Standards five, and ten through twelve of the *Standards and Guidelines for the Conservation of Historic Places in Canada* (Parks Canada, 2010). As an example of the interpretation of Standard twelve[3], adaptive reuse proposals for Rack House D—a six-storey brick masonry building along Trinity Street are shown in Figure 1.4. The first condo design proposal envisions a building that is similar in scale (A), while the second considers a much more significant addition in the form of a 32-storey hotel (B). Despite differences in scale, in both cases the Rack House D renderings present new construction that is distinguishable in both style and form (Landau, 2020; Smith, 2020; City of Toronto, 2017).

Figure 1.4: Rack House D Design Proposals

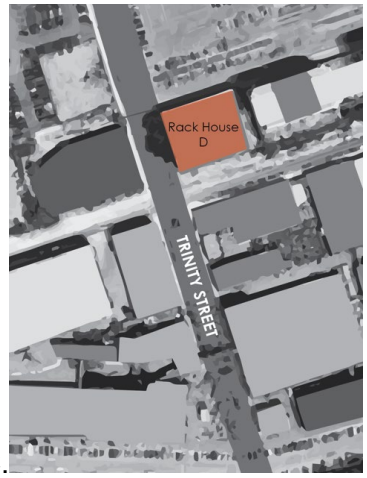
A.

Source: Cityscape and Dream. (2017).

B.

Source: IBI, Group. (2019).

C.



Source: Burman, adapted from Google Maps.

Trinity Street & the Public Realm

Trinity Street and other open spaces define the public realm of the Distillery Historic District and play an essential role in its present-day life. Trinity Street is the main artery for visitors to experience both active and passive engagement of the heritage district. The street is significant to the historic integrity of the site in orientation and form as well as in its continued function as a pedestrian right-of-way closed to vehicular traffic. Rehabilitation of the site relies on exterior treatments of buildings visible from the street as well as compatible additions that are distinguishable and subordinate in design to the historic elements. Design qualities of Trinity Street are categorized according to *Standards and Guidelines for the Conservation of Historic Places in Canada* in Table 1.1. (Parks Canada, 2010).

[3] "Create any new additions or related new construction so that the essential form and integrity of an historic place will not be impaired if the new work is removed in the future" (Parks Canada, 2010, p.23).

Table 1.1: Trinity Street Adaptative Reuse Qualities and Related Standards

QUALITY	REHABILITATION DESCRIPTION	STANDARD OF INTEGRITY (Parks Canada, 2010)
Plaza and open spaces	Adapted reuse without alteration of historic elements, including Public Art instillations, seating, and new semi-public enclosures	5, 10, 11, 12
Walkway	Original and continued use of material (red brick) Role as public pedestrian thoroughfare retained.	10, 11
Gateways	Main south and north entry, symbolic gesture of original signs	10, 11, 12
Plantings	Trees replanted per original design and new removable planters added for businesses	10, 11, 12
Sightlines	North to South View, unobstructed smokestack	10, 11, 12
Lighting	New street lighting to replicate original in style and placement, use of some historic lighting features retained	10,11

Source: Burman (2021)

Specific design aspects of Trinity Street that engage the public are described below and illustrated in images A-F (see Figure 1.5).

- *District entry* – Entry ways identify historic origins of the founders, with Gooderham and Worts Distillery with signs perpendicular and above street level (image E). The southern public parkade is separated from the main buildings by Trinity Street Plaza (image A). The north entry features a pedestrian gate blocking vehicles from entering, as well as an information booth not original to the site (image F).

- *Trinity Street Plaza* – A public space featuring art instillations acts as a central gathering space for a variety of events and activities such as festivals, markets, busking, and everyday open space seating (image A).

- *Public seating and Enclosures* – Public seating is found throughout the district in benches and chairs; semi-public enclosures within open spaces define engagement boundaries (images A, B, and E). Businesses utilize informal open spaces bordering the street for advertisement and seating (image E).

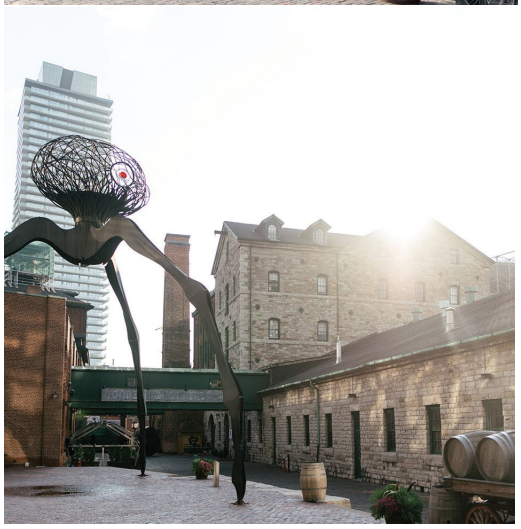
- *Lighting* – Lampposts line the street as in original streetscape (Allsopp & Hillier, 1994) and businesses use overhead lighting to mark entries (images A, B, and E)

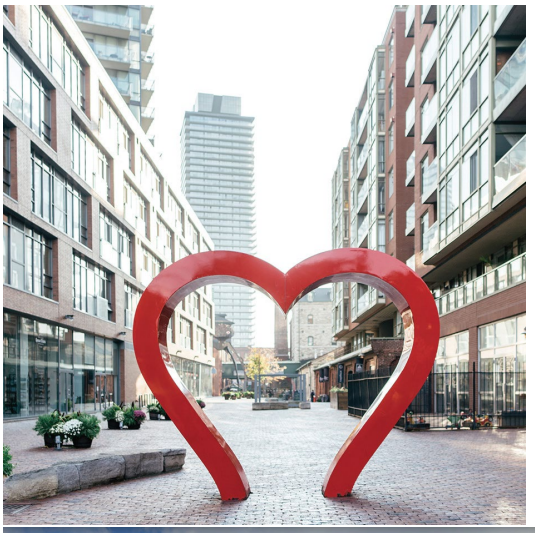
- *Public art* – Public art and adaptive spatial design is found in informal alleyways and plazas throughout the district (image C) as well as in new-build open spaces (image D)

Figure 1.5: Trinity Street & Public Realm Design

A. 

B. 

C. 

D. 

E. 

F. 

A. 'Trinity Plaza' entry from Distillery Street; B. Interior district side-street; C. Public art in Gristmill Lane; D. Public art in modern developments; E. South view of Trinity Street; F. New towers on Trinity Street.

Source: The Distillery Historic District. (2021) Google Maps 2021 (image F)

- *Walkways* – The street is paved with the original red brick, replicated in modern additions as needed, and follows the original site layout (image D)

- *Soft landscaping* – The streetscape maintains historic plantings of elm trees on the west side, while allowing removable planters for businesses on the eastside (image B and E).

- *Sightlines* – An unobstructed view from north to south of the site is flanked by the historic buildings. An original smokestack, when viewed from the west side of the north entry way on the street, acts as the central foreground to two new high-rise apartment buildings neighbouring the district (image F).

Wider Context

The Distillery Historic District is located in downtown Toronto in close proximity to several historic districts, including Cabbagetown, Union Station, Queen Street East, Garden District, Kensington Market and Queen Street - embedding the district within the historic and cultural milieu of the urban center (Figure 1.6; site identified in red).

Figure 1.6: City of Toronto Historic Places and Districts

Source: Burman, adapted from Google Maps.

Surrounding areas include residential and commercial properties as well as park space, such as Parliament Square Park, and the city waterfront. The residential properties range from high-price townhomes and condominiums to more affordable housing, such as the Caroline Co-op on the neighbouring block as well as market-rate rental properties. The rich milieu of mid- to high-density developments offer walkable access to amenities, retail, schools and parks. Trinity Street is connected to King Street to the north as well as to southern residential and commercial side streets. This allows gradual disruption of vehicular traffic for pedestrian comfort while larger corridors, such as Parliament Street, act as a major roadway for access.

A variety of interest groups and investors sustain and promote the identity of Trinity Street and its public realm as a historic place and cultural destination. Firstly, the Distillery Historic District itself is responsible for maintaining and developing the distilleryheritage.com website, which compiles and provides free access to vast amounts of historic resources—helping educate the public as to their value (The Distillery Historic District, 2021). The district also participates in an annual *Doors Open Toronto* event where thousands of visitors experience a curated tour of the sites many artifacts and spaces. Regular tours are also offered by both heritage and private tour groups. Sustaining partnerships with the many tenant businesses and organizations enrich the visitor experience by catering to diverse interests (The Distillery Historic District, 2020). The transient nature of Trinity Street allows rotating partnered events and instillations, engaging multiple stakeholders and communities. The flexibility of Trinity Plaza and the street draws new and returning visitors—increasing its economic viability.

Insights for Parade Square in Currie

Parade Square in Calgary was once the beating heart of the Currie Barracks military compound used for military parades, ceremony, and daily procedures (Government of Alberta, 1999b)[4]. Today it sits mainly idle amidst new developments and transient tenancy. Similarly to the conservation and adaptive reuse of the Distillery District, the redevelopment of Parade Square in Currie centers on the historic value and cultural significance of designated historic resources in relation to thriving mixed-use places for living, shopping, education, and play. The success of Trinity Street Adaptive reuse is due a synergy of economic, social and environmental strategies.

- *Economic* Culture-driven regenerative conservation requires a distinct vision and buy-in from entrepreneurs, artists, and the general population. The cohesive vision and investment can be centered on retaining historic characteristics of a place, which generates interest and activity at the street level and in the public realm.
- *Social* Trinity Street is a major gathering hub and gateway-public space for the district and its amenities; it provides a transitional space between the public realm and commercial businesses. The historic function of the street was renewed to compliment new functions and needs of current tenants while retaining historic integrity through design.
- *Environmental* Allowing the central public realm to remain flexible also enhances walkability and pedestrian access. Architectural landscape innovation in soft landscaping improves ecosystem services and retains the environmental historical characteristics of the site.

Insights from the adaptive reuse of Trinity Street and its public realm may provide ideas for Parade Square and specific techniques and methods of design for adaptive reuse of historic built and landscape heritage.

[4] Parade Square was originally built as part of the largest public works program in Alberta during the Great Depression (Government of Alberta, 1999a).

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2

OLD HIGH RIVER POST OFICE

William Kumlin

Introduction

The adaptive reuse of heritage buildings plays an important role in the conservation of historic architecture. As companies and institutions grow, they often outgrow their premises and need to expand into other buildings, abandoning buildings with significant historic character. Professionals, designers, and community leaders can rehabilitate historic building resources for new purposes while creating better communities with a degree of permanence. Adapting a building for a new function can also retain its historic value. As well, adaptive reuse contributes to the economic viability of the community and businesses are often attracted to these historic communities due to character (Kalman, 2014). It is this character that heritage conservationists strive to protect.

Adaptive reuse for the purpose of heritage conservation can be addressed in a variety of ways and is defined in heritage documents. For example, *The Burra Charter* by ICOMOS (2013) allows adaptive reuse when it doesn't impact on the cultural significance of a place. Whereas the *Standards and Guidelines for the Conservation of Historic Places in Canada* (Parks Canada, 2010) provides guidance for use and character-defining elements. Often, the reuse and repurposing of historic places is challenging if the new use is not compatible with the original use or character-defining elements. Transforming a City Hall into a restaurant or a bank into a fitness studio, for example, requires redesign of interior spaces. As well, additions may be required to accommodate the new use. If there is a zero-tolerance mandate for adaptation by conservationists, it is likely that these gems could remain vacant until they fall into substantial disrepair, requiring significant dollars to rehabilitate.

The Old Post Office / Town Office Building

This research presents the adaptive reuse of High River's Old Post Office building originally built in 1931. The case has similar characteristics as Currie Barracks' Parade Square in Calgary: the original building was a government installation at a significant point in Canadian history and it has had several uses, both governmental and private.

The High River Old Post Office received provincial designation as a historic resource in 2003 (Government of Alberta, 2003). For 70 years the building was recognized locally as a civic symbol of the town of High River with contributing social, cultural, and political elements. It is located at a prominent corner in High River's downtown area with its main entrance facing an intersection, seen in Figure 2.1 and Figure 2.2. The building has had more than one adaptive reuse in its history.

There are other examples of adaptive reuse of historic places in downtown High River including the Canadian Bank of Commerce which continues to function as a bank but has an addition to the building, seen in Figure 2.3. Also, the town's passenger train station was converted to a museum when train service became obsolete in the area, seen in Figure 2.4.

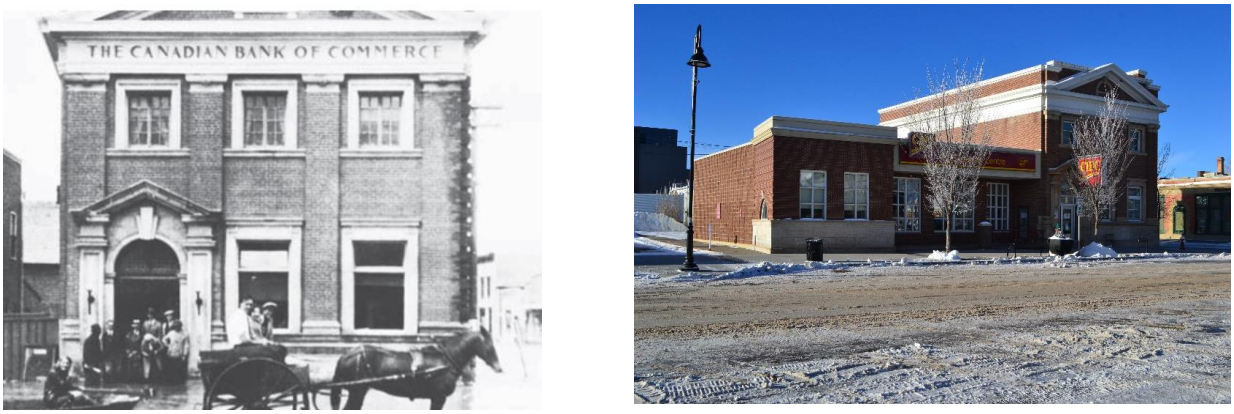
Figure 2.1: Downtown High River Featuring the Old Post Office

Source: Terlier, 2021

Figure 2.2: Partial Plan of Downtown High River

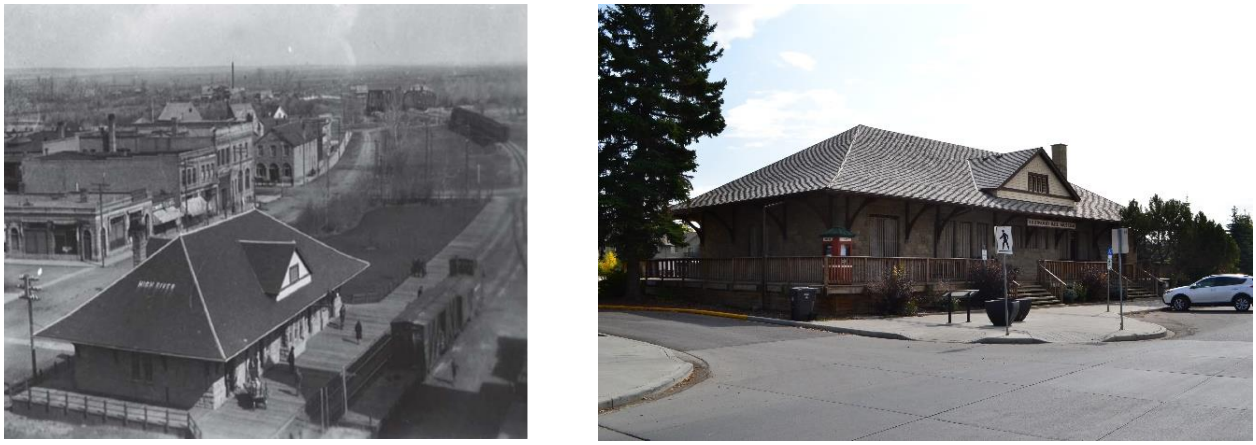
Source: unknown (N.d)

Figure 2.3: CIBC Building in 1942 and Today



Source: Jantzen, 2016 (left) & William Kumlin, 2021 (right)

Figure 2.4: High River's Train Station in 1905 and Present Highwood Museum



Source: Jantzen, 2016 (left) & Kumlin, 2021 (right)

Building History

The building was originally constructed as the town's post office in 1931. No other building like it was constructed by the Canadian federal government that year due to the global recession. Buildings of architectural significance in Alberta during this time were most commonly built by the governments. There was seldom a building where a private entity expended the effort and money to contribute to the architectural history of the country or province. Other contributors to significant architecture at the time were banks and financial institutions. Banks reflected an architectural style typical of the time and stood out to the community as a symbol of government service to the citizens. Being the only post office in a small community, the Old Post Office building was publicly recognized and provided an essential service for the community.

In the 1940s, the second floor of the building housed the Royal Canadian Mounted Police administrative offices. The rest of the building remained a functioning post office until 1971 at which time it became the administrative offices for the Town of High River. A small single-storey addition was constructed at the south side (rear) of the building to accommodate civic departments. As the Town Offices, the building was prominent in the downtown district and its use remained thematically similar to the original use. In 2001, new Town Offices were constructed across the street and the building was vacated. Municipal Heritage Designation for the building was pursued shortly after, possibly so that it would not be considered for demolition. Official designation was received in 2003. However, no other use for the building was considered. The building sat empty and neglected from 2001 until 2005. It was then that a local resident couple, the Carlson's, purchased the building and repurposed it as a food and entertainment venue, something new to the High River hospitality scene. The intended reuse required substantial renovations and was a significant departure from the building's past functions.

The designated character defining elements of the Old Post Office include the mass, form, and scale of two-storey building; brick construction such as Flemish and stack bonds as well as rectangular and diamond shaped brick patterns surrounding upper and lower Tyndall stone fenestrations and inserts; architectural and decorative details of cornice, brackets, fenestration openings, and parapet; and the main entrance '1931' date stone. Many of these details can be seen in Figure 2.5, showing the original building and entrances.

Figure 2.5: Old Post Office Building Entrances

Source: Jantzen, 2016 (left) & Kumlin, 2021 (right)

Adaptive Reuse

Reusing the Old Post Office building required town planning principles and the overall vision of the downtown area be considered. For example, the new Town Offices across the street shared a new building with the Foothills Municipal District (MD), creating a civic precinct at the prime intersection of the business district. The proposal of a restaurant and entertainment venue was seen as a new contribution to the life of the downtown community that would contribute to the music and arts scene of High River. Further, the second floor was adapted as a stylish loft living space, making this mixed-use facility a departure from typical downtown commercial property uses.

In the case of Carlton's adaptive reuse, significant interior renovations had to be undertaken to turn the mainly office areas into a restaurant and private residence. The new building owners renovated with an eye toward preserving as many heritage aspects as possible. Additionally, salvaged flooring from an old apartment building in Lethbridge, fir timbers from an aircraft hangar in Fort Macleod, granite steps from the post office in Claresholm, and pieces of an old iron bridge were items used in the rebuilding effort. Even though they weren't original elements, they contributed to the historic feel of the building.

The new venue was unique in the town and it became a positive contributor to the local social and cultural environment. Also, the restaurant became an economic generator within the community. However, compromises had to be made. Discussions with the Town Planner and the Heritage Advisory Board supported the sale and conversion of the property, including integrating additions made for the Town Offices and the new open-air patio was constructed, designed to complement the original building. Exterior views of the additions are seen in Figure 2.7. Interior details of the restaurant and the open-air patio addition are seen in Figure 2.6.

Figure 2.6: Main Floor & Outdoor Patio

Source: Terlier, 2021

Figure 2.7: Patio & Town Office Additions

Source: Photographs by William Kumlin, 2021

For 15 years, from 2005 until its closure in 2020, the restaurant and entertainment venue contributed to the social and artistic life of the community. It was a place for locals to enjoy entertainment from local and non-local entertainers. While the heritage of the building was already relational to the history of the Town, this new function benefited the continued use of the historic building. In future, the building must adapt to other private sector uses and functions to remain a viable heritage resource.

Finding an adaptive reuse for a historic resource is complicated and often requires finding a balanced compromise. The function should be thematically similar to the original use so that the building can be repurposed with minimal intervention/addition. It is important that the proposed uses also make a positive contribution to the social, cultural, or economic context

Conclusions

As the case of High River's Old Post Office shows, the adaptive reuse is a complex process that requires a balance between retaining character-defining elements of a heritage resource and its adjustment to accommodate new functions over time. In this case, venturing away from its

original use allowed the heritage building to remain a part of the town's history. What happened in High River resulted in a win-win strategy—the community gained a venue for the local arts and the building was kept as a historical resource for years to come.

The redevelopment of Parade Square at Currie Barracks in Calgary is a much more complicated large-scale adaptive reuse that might also require compromise. Existing buildings were originally developed as a military base, i.e., with a government sanctioned use. Once the base was closed and decommissioned, Currie was repurposed to accommodate small independent uses—offices and small industrial businesses. For the most part, the Currie buildings remained in their original configuration and condition.

The current development of Currie as a mixed-use development is not in any way similar to the original use of the site. In fact, many of the buildings are due for demolition as part of the concept. New uses and new buildings will soon become the face of the overall new development. The goal of adaptive reuse of Currie Barracks historic resources and designated places should be to retain enough of the original character of the site so that its history and integrity of are not lost.

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3

LIBERTY VILLAGE: TRANSFORMATION OF 60 ATLANTIC AVENUE IN TORONTO

Nikki Cole

Historic Context

The chapter explores adaptive reuse of 60 Atlantic Avenue heritage building in Liberty Village near downtown Toronto. Once a vacant industrial area, the community is reborn as a neighbourhood to live, work and play that capitalizes on a variety of adaptive use of heritage resources and landscapes. The case study can offer planning strategies and insights for Currie's future development and the adaptive reuse of Parade Square.

Liberty Village used to be a booming industrial area due to its close access to downtown Toronto and service by the Canadian Pacific and Grand Trunk Railways. The district was also home to the Toronto's Industrial Exhibition (Liberty Village BIA, 2021). It has 40 heritage resources, either listed on the register or designated under part IV of the *Heritage Act* (see Figure 3.1). Some of the landmarks within Liberty Village are the Central Prison, 1915 Liberty Street, The Toronto Carpet Factory, The 'Castle', Snooker Street, The Liberty Market, and Hanna Avenue (Liberty Village BIA, 2021). Liberty Village was originally planned for residential development, but the railway tracks laid across the community essentially cut it off from the rest of the city. The district housed a few institutions—Toronto Central Prison and Andrew Mercer Reformatory for Women which opened in 1878. Liberty Village was named after "Liberty Street" where freed male and female convicts would walk once, they served their time (Wieditz, 2007).

The railway tracks provided a competitive advantage for the district's evolution as an industrial area. John Inglis and Company established a factory of heavy machinery manufacturing in 1884, another factory for agricultural products established in 1891. Wind Engine and Pump, Toronto Carpet Manufacturing and other industries were thriving due to a healthy labor supply from the surrounding neighborhood (Wieditz, 2007). Manufacturing operations started to decline between 1970 to 1980 due to the shift from railway to road shipping, as well as a need for lower production costs and larger manufacturing facilities. With lower property values and little industrial activity many of the buildings within Liberty Village started to deteriorate. By the end of the 20th century many artisans and technology startups firms moved to the area attracted by its unique character (Liberty Village BIA, 2013).

Figure 3.1: Liberty Village in Toronto Aerial View

Source: ArchDaily. 2015.

60 Atlantic Avenue Building: Heritage Significance

60 Atlantic Avenue is a heritage resource that has undergone development to be adapted to a mix of uses. Formally, St. David's Wine warehouse, it has 115-year history and is located near the centre of Liberty Village (Figure 3.2). The building is an integral part of the industrial and institutional cluster left within the area that gives the neighborhood its character. In close proximity are two designated buildings from the former prison lands—a former prison chapel and a prison workshop. Further south-east lies the Toronto Carpet factory, the E.W. Gillett Factory, Sunbeam Incandescent Light Factory, which are all listed on the City of Toronto Heritage Inventory with some undergoing adaptive reuse (City of Toronto, 2012).

The original building was constructed as a warehouse for St. David's Wine Grower's Co in 1898, used as an Eaton's Department Store warehouse, and as a studio space for Artscape in the 1990s.[1] After many years of decline, the exterior was in a rough shape. Hullmark, a local

[1] Artspace's head office occupied 60 Atlantic Avenue. This was home to artists' studios and the building coincidently transformed the neighborhood's name to Liberty Village (City of Toronto, 2012).

developer took over the heritage resource, and in partnership with Quadrangle Architects infused a bit of contemporary flare with the original heritage fabric from the industrial era to develop a new commercial opportunity (Calvet, 2013). The project respected the unique design features and updated the building without impacting its history and character (Calvet, 2013). Due to the design value of the building as an industrial heritage dating back to the 20th century, and its designation on the *Toronto Heritage Properties Inventory*, there were a few restrictions for the project. *The Heritage Impact Statement* highlighted character-defining elements, such as the historical entrance and windows, that had to be retained to maintain the building's historical significance (Calvet, 2013).

Figure 3.2: 60 Atlantic Avenue Building

Source: Quadrangle Architects, 2014.

The property at 60 Atlantic Avenue is a two-storey industrial building designated under Part IV of the *Heritage Act*. St. David's Wine Growers Company Building (60 Atlantic Avenue) evokes design value as an industrial building, which has design features of Edwardian Classicism. It has symmetrical elements, somber brick cladding, and classical detailing. There is also decorative brickwork along the east façade and a parapet with a Greek key pattern. Some architectural qualities/character defining elements of the building consist of L-shaped structure and plan, sandstone base, flat roof, brick cladding, and wood detailing. Some unique elements are bays with brick piers, a brick porch, fenestration and round arched openings on the second floor (City of Toronto, 2012).

F.H. Herbert designed the St. David's Wine Growers Company Building as well as its additions. He was one of the most creative designers in Toronto in the 20th century, designing a range of commercial and residential buildings in the Toronto area (City of Toronto, 2012).[2] The St. David's Wine Growers Company Building is linked historically and visually to Liberty Village and is at the intersection of Atlantic Avenue and Liberty street, which is the main route running east to west through the community (City of Toronto, 2012).

Figure 3.3: Heritage Resources in Liberty Village

Source: CREATETO (n.d).

Adaptive Reuse and Design

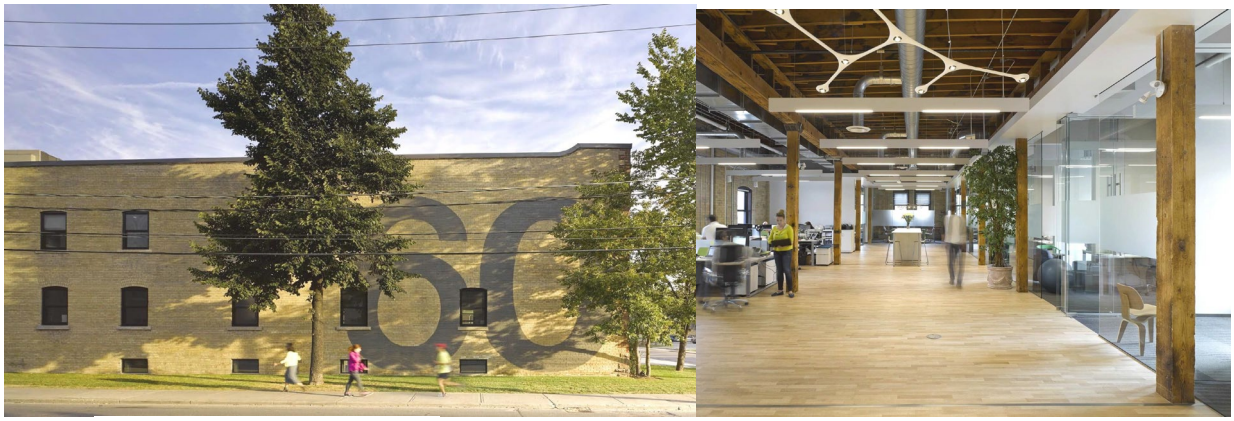
Hullmark Developments pursued the integration of contemporary and historic architecture. Quadrangle Architects augmented the initial story of restoration with a story of urban design (ArchDaily, 2015). Richard Witt, Principal of Quadrangle Architects, noted that they approached this project in a series of elements rather than just one building/object. They focused on improving accessibility, social activity, and contemporary circulation. The design team excavated the basement recreating a sunken courtyard. Witt stated that "heritage is not the

[2] When Herbert accepted commissions for 60 Atlantic Avenue, he also designed other projects found in the City of Toronto's *Heritage Inventory*. These consisted of Sunbeam Incandescent Lamp factory (1909 & 1911) as well as the Expanded Metal and Fireproofing Company Factory (1908-1909) (City of Toronto, 2012).

restoration of existing bricks and mortar, but repositioning which gives new life, new relevance and usefulness for the future" (ArchDaily, 2015, para 2).

The design and construction team began revealing, power washing, sand blasting, and taking other precautions to get the building to its original state. They also wanted to add corten steel, as well as a glass circulation core to honor its industrial character. It is a transparent circulation spine meant to give more space for new mechanical equipment, elevators, and new plumbing (see Figure 3.2). The intent behind the transparent circulation area was to create a contrast between old to new (Calvet, 2013).To increase street connections and accessibility the team decided to excavate the site, which resulted in an outdoor courtyard. The lower portion of the building became a bright space with an opportunity to house a restaurant with a beer garden. There were also office and studio spaces created above while using the original brick walls, high ceilings, heavy timber beams, and large windows, ideal for tenants in the creative and technology realm (Architonic, 2014). The team also thought it was important to incorporate art in and throughout the building to support the revitalization. On the south facade there is a large "60" painted for branding, while a graphic of a historic neighbourhood map is placed on the interior of the building, drawing on the past (Figure 3.4). The project was completed in 2014, spans 43,000 square feet and is seen as a design landmark within Liberty Village. The success inspired the adaptive reuse project for the adjacent building, 80th Atlantic Avenue (Architonic, 2014).

Figure 3.4: Design Approach to 60 Avenue Building



Source: Quadrangle Architects, 2014.

Community Engagement and Partnership Aspects

Liberty Village is very accessible, downtown Toronto is only fifteen minutes away by streetcar, ten minutes away from the lakeshore, and is only a short walk to entertainment districts located to the districts of King St. West. East of Liberty Street is where many of the new residential developments are taking place and the corporate office area is located more in the west end of the community. Liberty Village Business Improvement Area (BIA) employs over ten thousand people and represents over six hundred member businesses. The BIA, founded in 2001, responded to growth in the area with new shops, cafes, restaurants, residential spaces, and a new park (Liberty Village BIA, 2021). The gentrification of downtown Toronto has resulted in the transformation of Liberty Village in a new trendy neighborhood for artists and young

professionals. Many of the remaining factories were developed into residential lofts as well as commercial uses such as gyms, restaurants, and eclectic retail stores. Mixed commercial uses became part of the former Irwin Toy Factory. Another great example of adaptive reuse is the Toronto Carpet Building, which now houses startup companies, such as design, media, marketing, and technology.[3]

A Liberty Village Residents Association (LVRA), established in 2011, represents 25,000 people who call this district their home. This resident's association has social media groups and organizes events that build social cohesion. Run by volunteers as a not-for-profit association, it has gained sponsorship to provide outreach and local community opportunities.

Reflection on Design and Planning Strategies

There have been some mixed opinions on the current design of Liberty Village. There were concerns related to the lack of diversity of social activities and retail, traffic congestion, as well as the overcrowding of public transit. There were positive opinions about the businesses in the area being more on the creative side, as well as a youthful sense of community and vibrancy. Since the adoption of the Master Plan in 2013, nine condominium units are under construction, as well as daycare and retail, green spaces/parks, as well as improvements to transportation and bridge connections.[4] The density of Liberty Village increased three times, but local area improvements and investments in pedestrian infrastructure were slow to meet this demand (O'Neil, 2018).

Regarding planning strategies and design, the adaptive reuse of 60 Atlantic Avenue is contribution of business and energy to the neighbourhood. Richard Witt states that even though adaptive reuse is a key component of historic preservation, not as many developers are ready to take the leap. Even though adaptive reuse projects are more "financially viable, it is more work to achieve the same quantity as with a new build" (Calvet, 2013, para 11). The integration of the existing heritage of Liberty Village into a future urban community is important. At the building level the understanding of the buildings' relationship to, and role in, the broader urban fabric can spark a sense of place and preserve cultural heritage in a high-density development such as Currie.

[3] Along with new building developments, the construction of a pedestrian bridge is expected to provide a more convenient route from Liberty Village to King Street West. The design features a bicycle channel, elevators to ensure barrier free access, and public art (City of Toronto, 2020).

[4] An option for a more flexible design is to allow residential areas with a minimum and maximum amount of commercial space to ensure a true mixed community and encourage the growth of employment simultaneously (Calvet, 2013).

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4

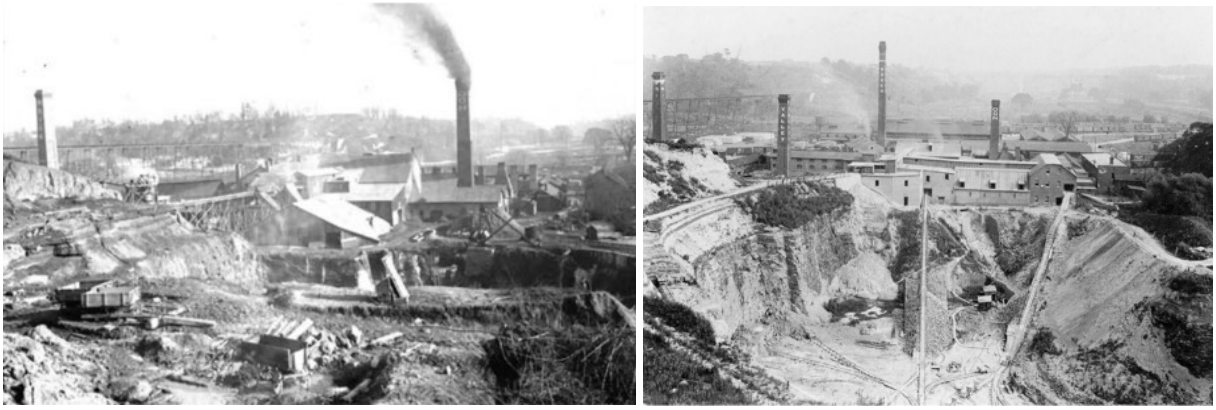
ADAPTIVE REUSE OF THE BRICK WORKS IN TORONTO

Marvin DeJong and Nikolas Marsall-Moritz

Historic Introduction

Don Valley Brick Works in Toronto is a historic place that contains designated heritage buildings as well as a large landscape area in the form of a public natural park. The site is a former quarry and industrial complex, which operated under various owners from 1889 to 1989 (Don Valley Brick Works, 2010). Uses included a paper mill, quarry, brickworks and dump for soil fill (Figure 4.1). The heritage and cultural significance of the site are enhanced through adaptive reuse of its heritage resources integrated into a restored natural landscape. Plans and policies in place promote the sustainability of the historic place and its economic and social viability in the future. The Evergreen Brick Works complex is a 40 acre, formerly industrial site that is now part of the Toronto Park system. Owned by the City of Toronto it is comprised of 16 buildings connected by public spaces and native landscapes (Evergreen Brick Works Master Plan, n.d.). It reopened as the Evergreen Brick Works in 2010 after two years of construction welcoming half a million visitors per year.

Figure 4.1: Brick Works Quarry and Industrial Complex



Source: Bateman, 2012 & "Don Valley Brick Works," 2014

In the past the Don Valley Brick Works supplied the brick for many of Toronto's buildings for over 100 years. The brick made here built Massey Hall and the Ontario Legislature and won awards for its high quality. The Don Valley Pressed Brick Works opened in 1889, formerly on the site of a Paper Mill. The business flourished after a major fire in 1904 led to adoption of a bylaw banning wood construction in downtown Toronto. The company changed hands several times and produced bricks until 1989. The adjacent quarry was depleted and the owners offered it to the City of Toronto for purchase. A local developer interested in turning the site into a new residential community made a successful bid. Later, the City of Toronto annexed the land, paying substantially more this time, and planning began for the site rehabilitation and its new adaptive reuse (Foster, 2005).

Redevelopment

The site is significant for its association with the historical development of the Don Valley and the history of brick making in Toronto and Ontario. Part of this association is the collection of 16 industrial structures, which continually evolved to meet the needs of the brick making process. The buildings are constructed using a variety of materials, including brick, corrugated metal, steel, terra cotta, cast iron, rubble stone and wood and range in construction date from 1891 to 1972. At the time of the writing of the statement of significance, many of the buildings contained original equipment including kilns, drying tunnels, grinders, hoppers, conveyors, shale bins, surge bins, fans and brick cutting machines (Toronto East York Community Council, 2002).

Figure 4.2: Aerial Site View of Evergreen Brick Works

Source: Evergreen Brick Works, (2014)

In conjunction with the buildings, the machinery represents the evolution of the brick making process in Ontario and in Canada during the 20th century. The industrial site languished for almost 20 years while planning and funding was completed and, in the meantime, became an urban

playground. The graffiti that emerged was one additional layer of its history and was incorporated in the heritage conservation plan. In 2002 the site was designated a *Heritage site under the Ontario Heritage Act*.

Over the next decade, various plans for heritage conservation were created. The bulk of the redevelopment finished in 2014 and included the adaptive reuse of most of the existing buildings, as well as the construction of one new building on-site (Figure 4.2). Current uses of the heritage buildings include community and event space, art galleries, commercial and market spaces. The place is home to a private School - the Gradale Academy, various offices, Conference Centre, interpretive areas, and markets (Evergreen Brick Works, n.d.-b). The rehabilitation of the quarry to a natural parkland was extensive. Filling in the massive hole created by the removal of the clay began in the 1940's. Full restoration began in 1994 transforming the quarry into a landscape with three interconnected ponds with a series of connecting pathways. Native trees and plantings complemented the design.

A comprehensive team was chosen to complete the redesign of the facility. The architectAlliance and DTAH were responsible for the Master Plan. ERA Architects and Diamond Schmitt Architects were leading the rehabilitation and new buildings on the site, while Claude Cormier was tasked with the landscape design. The Brick Works has won numerous awards. All consultants demonstrated "light touch and loose fit" approach (Diamond Schmitt Architects, 2012). Part of the success of the Brick Works is its clever design. It attracts people, makes them feel comfortable, and then makes them want to continue to explore the space. It is incredibly engaging. At no time does it not feel warm, even though it is a former industrial complex there is a welcoming vibrancy to the place. The landscaping is truly magical; it draws you in and there is interest everywhere.

Adaptive Reuse: Quality & Integrity

The heritage resources of the Don Valley Brick Works can be categorized into three areas:

- the built industrial heritage, known as the "industrial pad", and represented by the extant heritage buildings;
- the industrial landscape, formally represented by the quarry area;
- the natural geologic heritage, represented by the geologic record exposed by the industrial use of the site.

Based on the available literature, the quality and integrity of the built industrial heritage is relatively high. Of the 17 main structures extant in 2002, 16 were recommended for designation and retention as part of the Heritage Property Report appended to the designation bylaw. Of these 16 structures, only one was eventually removed, to create space for the construction of the single new building on the site (Toronto East York Community Council, 2002). The new structure is a LEED Platinum building, providing high quality office space for rent, which boosts the economic revenue (Evergreen Brick Works, n.d.-a). Beyond mechanical and electrical upgrades, the remaining buildings underwent varying degrees of intervention, from almost none, to the removal of walls to improve user flow through the site or roofs to create a garden space. The graffiti, together with some of the authentic kilns and brick presses were retained (Figures 4.3. & 4.4).

Figure 4.3: Welcome Court

Source: Evergreen Brick Works, (2014)

The other industrial lands on the site, generally the quarry areas to the north of the industrial pad, have partially been lost – having been used as a fill site for excavated soil from a downtown high-rise (Pei, 2014). The ecological restoration of the site to a natural parkland with water feature, brings it back to a historic layer that pre-dates the industrial legacy. This aspect of its history is interpreted through the use of signage and interpretive walk throughout the park (Côté, 2013).

Figure 4.4: Evening View of the Center for Green Cities and the Chimney

Source: Evergreen Brick Works, (2014)

The natural geologic heritage is evident along the north slope of the site. This area has been designated by the Ontario Ministry of Natural Resources and Forestry as an *Area of Natural and Scientific Interest*. The designation is applied to areas of land and water containing natural landscape or features that have been identified as having life science or earth science values related to protection, scientific study or education (Natural Heritage, Lands and Protected Spaces & Ministry of Natural Resources, 2011). The site is important as it is one of only a few sites in the world where such a long geologic record can be easily reviewed. However, with site being a mixed-use park and natural area with little to no protection of the slope, these areas are at risk of deterioration (Brandt & Rouillard, 2020).

The adaptive reuse of the historic place capitalizes on its location in inner city Toronto, adjacent to the residential heritage district of North Rosedale and a series of parks along the Don River Valley. The integrity of industrial uses has been lost, but the place has acquired commercial and community uses with the park being widely accessible. This is a city-wide destination with access for vehicles, public transit from nearby mass transit station, as well as pedestrian access through trails within the parklands. Much of the success of the Brick Works can be attributed to the revitalization concept developed with the designers, owners, and the community. Maintaining the historic integrity and the uniqueness of the place was important together with a focus on what will create a vibrancy that will attract people to the area.

Community Engagement and Partnership

Community involvement and engagement is inherent in almost all heritage conservation planning (Kalman, 2014). The local community appears to have been engaged throughout the history of the post-industrial site, and played a key role in getting the Toronto Region Conservation Authority on board to expropriate the site from a private developer. Records from community engagement efforts identify many individuals and interest groups involved in the process. However, those community members appear to have come from a non-diverse background, many from the immediate surrounding communities, leading to concerns regarding elitist practices and NIMBYism (Not In My Back Yard). Despite these concerns, the present adaptive reuse of the historic place is generally seen as successful, with numerous awards for sustainable/green, urban and heritage adaptive reuse design (Foster, 2005).

Figure 4.5: Covered Market Pavilion

Source: Evergreen Brick Works, (2014)

Beyond the initial public engagement for the parkland creation, the community involvement –in both the design process and eventual adaptive reuse – appears to have been in important aspect. The heritage buildings host an event center, farmer's, Saturday and seasonal markets, and a children's playground. These ongoing opportunities for involvement encourage the community to value and engage with the place bringing new life into the industrial legacy (Figure 4.5). Continuing this ethos of community engagement, Evergreen continues to work with local communities on plans for the site's future (Miranda, 2010). Finally, while owned by the Toronto Region Conservation Authority, the management of the heritage place has benefited greatly from a partnership with Evergreen, a not-for-profit and charity organization that promotes sustainable urban environments. Evergreen has taken stewardship of the industrial buildings, leading the adaptive reuse of the site with a focus on community and sustainability.

Figure 4.6: East View into the Welcome Court

Source: Evergreen Brick Works, (2014)

Concluding Comments

The development of the Don Valley Brickworks site is generally seen as a success in terms of environmental reclamation, heritage building adaptive reuse and community building (Figure 4.6). Several strategies are important:

- Ongoing community engagement, from the initial planning process, to its current use to potential future site use;
- Incorporation of community spaces into the development, such as event and market space;
- Creation of an economically viable development, while retaining and adaptively reusing the heritage assets;
- Ensuring connection to the surrounding communities though vehicle, public transit and

pedestrian access;
- Balancing new uses on the site with interpretation and retention of heritage assets;
- Beneficial partnerships, such as that with Evergreen, to manage the heritage conservation process from planning into implementation.

Lessons for Parade Square in Currie

One of the underlying successes of the Brick Works is that it embraced its heritage. Both Parade Square in Currie Barracks and the Brick Works honour a legacy. Although different, they still both are significant to their respective cities; the first site in terms of country building and the second in terms of city building. It is important that the Parade Square pays respect to the military heritage that this site should convey. Currie Barracks had a pivotal role in training troops for the Second World War and Korean Conflict. The air base formerly located there trained countless Canadian and Allied pilots. The master plan envisions a soccer field as the new use of this space, but would it convey a sense of that heritage?

The Parade Square is really the epicenter of Currie. It is truly the symbolic center of the community (Parade Square—Currie Barracks, 1999). The buildings that surround it, although stemming from different dates are all similar in mass. The older buildings, dating from the depression years, have a more elegant appearance through their detailing, but are all the same typology. White stucco, coloured roofs, same pitch of roof, rhythmic windows, bring inherent human scale to these buildings (see Bessborough Building, Currie Barracks, 2016). There is an opportunity to create a magnificent gathering space, not just a symbol of a square, but one that invites people to want to go there and want to spend time walking and enjoying the area a real magnet for community life. It seems natural to promote an outdoor space for gathering, which is a continuation of its original use, but the buildings that surround it should also focus on the Square as they once did. The typology of the surrounding buildings must be kept.

The original buildings that surrounded the Square were directly connected to it; this approach should inform the adaptive reuse and the new additions to frame the Parade Square. A square of this size must invite the immediate community, but also become an attractive city-wide destination. With proper design intervention, it could be a place maker. It must establish a dialog between the original use of the site, that of a military base, and connect it to the few remaining original buildings still grouped together. It is important to recognize that it is not only architecture, but the landscaping that is vital to the attraction and will be important to solve the lack of connectivity. The grid work of sidewalks could easily become the geneses of a new landscape plan.

Like in the Brick Works, landscaping will be essential in re-establishing the Square and will contribute greatly to the success of the area as a whole. Some of the recent interventions are sadly unsympathetic. The strong balance/symmetry of the square is lost now that a road on the south side of the Square has been added and an entire swath of mature landscaping was lost. The mandate of the designer(s) will ultimately be how to unify this area, the old and new must coalesce successfully and that divide is a bit bigger now.

The adaptive reuse of the remaining heritage buildings needs to maintain their integrity and reinforce the coherence of old and new by design, just like the Brick Works ensemble. The Athlone Building itself, the focus of the Square from the Crowchild Trail gates, is now part of a school complex. It can be emphasized as a symbol and likely Currie's most visible heritage building, as

it is the culmination of the east west axis started at Crowchild Trail. All remaining buildings, and those that are newly created, must continue to engage the square.

Other important lessons relate to identification of motivated partners that can help move a development out of planning and into implementation. Varying connections into surrounding communities are important to creating a vibrant and attractive destination. Using existing assets on-site to help create a unique character for the development can lead to success. As such, being flexible in the planning process to allow the adaptive reuse of existing assets is crucial. Application of all or some of these lessons can help create a Currie Barracks development that is valued by the community and can lead to successful long-term sustainable management of the historic place.

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5

ADAPTIVE REUSE OF HISTORIC BUILDINGS FOR AFFORDABLE HOUSING

Jeremy Tran

Problem Statement

In an ideal world, every human being should have a place to call home, as access to adequate housing is one of the most scared human rights (United Nations Centre for Human Rights, 1993). In Canada, 25% of Canadian households live in dwellings they cannot afford, which is in stark contrast to the 6% of the households living in socially owned housing, clearly illustrating an inefficiency in the housing market (Gibb & Maclennan, 2006). Another human right that was highlighted by Silverman (2007) is access to our shared cultural heritage, which is often embedded in the historic buildings still standing today. Yet to date, more than 20% of Canada's historic buildings have been demolished (Canada's Historic Places, n.d.). Many existing historic buildings also suffer from functional and economic obsolescence that lower their cultural significance (Fatiguso et al, 2017). The former phenomenon refers to buildings that lack modern utilities such as water, electricity, and plumbing, while the latter is a result of external changes that reduce the demand and ability of the building to adapt to changes in technology or economic structures (Weber, 2002). Most obsolete historic buildings are either demolished or converted into museums, luxurious apartments and entertainment complexes as heritage is often perceived as a commodity for the affluent (Ramlan & Neo, 2010; Randhawa, 2017). Low-income population with no access to adequate housing is therefore often excluded from enjoying the cultural heritage embedded in such buildings.

As an effort to preserve our heritage in a socially inclusive way, a growing number of projects supports the adaptive reuse of obsolete historic buildings for the provision of affordable housing. These two sectors share a strong synergistic tie that makes them highly compatible (Tan, Shuai, & Wang, 2018; Rowberry, 2015; Joe, 2015). Adaptive reuse is a process that converts a building to a new use (Department of Environment and Heritage, 2004; Latham, 2000). This chapter explores the connections between obsolete historic buildings and affordable housing in the Canadian context and identifies initiatives to bridge the gap in practice. Insights from successful projects highlight possible synergies and partnership to address both the lack of affordable housing and the loss of historic and cultural heritage in Canadian cities.

Heritage and Affordable Housing: Synergy in Adaptive Reuse

The literature heritage conservation, adaptive reuse, affordable housing, historic buildings conservation and revitalization addresses the synergy between these sectors in four domains—

economic, environmental, locational, and social.

Economic Synergy

Both affordable housing provision and historic buildings preservation are areas that require government intervention as the market on its own is unable to respond in an adequate way. Many governments provide funding or incentives to encourage affordable housing and historic building rehabilitation projects. In the US, tax incentives such as the Low-income Housing Tax Credit (LIHTC) and the Historic Rehabilitation Tax Credit (HRTC) have been successful at encouraging developers to pursue projects that convert obsolete historic buildings into affordable housing (Joe, 2015). Such financial and fiscal support is essential in ensuring the feasibility of affordable housing projects, which usually do not have high return on investment (Tsenkova & Witwer, 2011), as well as incentives for rehabilitation projects that have high risk of cost overrun due to unforeseen technical complications (Shipley, Utz, & Parsons, 2006). Public funding for such projects also leverages private investment, and philanthropic donations. The nature of such projects is likely to attract financial contribution from non- profit organizations and affluent individuals who believe in both causes. This first synergy allows for a more diverse funding envelope, where developers can maximise the potential of unique heritage assets, infuse a mix of uses (retail, arts) to complement housing and create attractive places. Local developers can obtain available funding for both sectors to increase the economic viability of these projects.

In Canada, the National Housing Co-investment fund pledged about $16 billion in funding and low-interest loans for creation of 60,000 affordable housing units (Government of Canada, 2017) while historic building preservation projects could seek funding from the National cost- sharing program for Heritage Places (Parks Canada, 2018). The province of Alberta also provided funding to conservation projects of provincial, municipal and local historic buildings through its Historic Resource Conservation Grant (Government of Alberta, n.d.). Despite a more limited scope compared to other countries in Europe and the US, the existing funding in Canada offers a favorable environment for such synergistic projects.

Environmental Synergy

The built construction industry constitutes 40% of the global materials usage, 40% of greenhouse gas emissions, and a third of the world's energy consumption (Worldwatch Institute, 1995). The original construction of obsolete buildings, including disused or underused historic buildings, expended a large amount of embodied energy through material extraction, production and transportation. Reuse of such structures is also reuse of the embodied energy and hence, avoiding demolition waste and reducing the amount of energy consumption (Bromley, Tallon, & Thomas, 2005).

Adaptation of obsolete historic buildings is also an opportunity to incorporate energy efficient features to bring old structures in line with current building legislation in terms of safety and sustainability (Royal Institution of Chartered Surveyors, 2009). The city of Melbourne has managed to increase its number of sustainable buildings by gradually reusing 1,200 historic buildings adaptively by 2020 (C40 cities, 2012).

The environmental synergy between the two sectors could be explained as part of the energy demand to build affordable housing being absorbed by the embodied energy of historic buildings. Hence, rehabilitating obsolete historic buildings into affordable housing is an innovative way to recycle the expended material and energy, contributing to a more sustainable construction industry.

Location Synergy

Real estate is about location, location, location as the banal saying goes. This is especially accurate when it comes to affordable housing site selection (Mulliner, Smallbone, & Maliene, 2013). In countries such as China, most affordable housing projects across its major cities are found concentrated in these cities' periphery due to a number of factors ranging from lower land cost to political influences (Zheng & Zhang, 2010; Tang, Cao, & Xiang, 2011). Scholars have attributed this phenomenon to have an adverse impact on residents' quality of life and social stability as these locations do not provide access to employment opportunities and public services that is essential to low-income households and individuals (Chai, Zhang, & Liu, 2011).

Many obsolete historic buildings are found in or in close proximity to city centres (Rowberry, 2015). It has also been strongly supported by literature that city centres have high concentration of administrative and service jobs, social services and transit nodes. As such, converting obsolete historic buildings into affordable housings makes a strong case as it eliminates the low purchasing power of low-income groups out of the site selection process as these buildings are either on public land or low-value land due to the obsolescence nature.

This marginalized group of population would otherwise not likely to be able to live in prime locations that many obsolete historic buildings occupy as the exorbitant land cost would derail all efforts to build affordable housing where it makes the most sense. Leveraging on this synergy provides an effective method to rectify one of real estate market inefficiencies – the inability to effectively allocate land to various actors based on needs rather than financial capacity.

In many Canadian cities, majority of historic buildings are located in city centers: approximately 90% in Toronto (City of Toronto, 2018), 82% in Calgary (City of Calgary, n.d.) and 45% in Vancouver (City of Vancouver, n.d.). Jobs in the service sector has been fueling Canadian cities' downtown revitalization efforts for decades (Ley & Mutton, 1991) and it is reasonable to deduce that there is a high concentration of them in the city centers. Similarly, public services that provide support to low-income and homeless people such as food banks, housing help centers, and social services providers are heavily concentrated in downtowns of major Canadian cities. Therefore, the location synergy will likely result in excellent affordable housing projects in many Canadian city centers.

Social Synergy

Inner-city neighborhoods have been plagued by bleak landscape of nondescript high-rise towers and unwelcoming "projects" that were a manifestation of the misguided urban renewal initiative. The most successful neighborhood revitalization efforts have been attributed to the retention and reinvestment in historic buildings, recognition of their character and quality and ultimately the decision to reuse rather than demolish (Rypkema, 2002). It is also this unique character that historic buildings possess that make them ideal to be converted to mixed-income housing with a low-income component as people of a wide variety of income levels are likely attracted (ibid). Leveraging on the desirability of historic buildings, adaptive reuse projects help low-income tenants living in mixed-income projects perceive less stigma than those in social housing projects (Tach, 2009).

Existing neighborhoods with obsolete historic buildings are often characterized with high crime rate and lower property value (Ball, 2002). As such, rehabilitation of the underutilized buildings will help revitalize the immediate neighborhoods that they are in and generally receives less opposition from the local community as any use is considered better than disuse. This is especially helpful for affordable housing projects which usually receive high level of pushback from the local residents (Tighe, 2010). With influx of residents into newly converted housings, these neighborhoods will receive more street traffic which in turns act as self-policing and reduces criminal activities (Jacobs,

1961). Rehabilitation of obsolete historic buildings have been shown to increase the property values, improved the business climate and created new jobs in their immediate neighborhoods (Rykema, 2012).

In Vancouver (Canada), the adaptive reuse of the Stanley Theater from a movie theater to a performance venue has been linked to numerous socio-demographic improvements in the surrounding area. For instance, the unemployment rate went down to 5.5% compared to the city's average of 8.6% and crime rate reduced by 26% while house prices increased by 106% over a period of 5 years following the rehabilitation (Jones, 2003)

Case Studies

Renaissance Retirement Residence (Regina, Canada)

Figure 5.1: Renaissance Retirement Residence Exterior

Source: (Revera, n.d.)

Formerly home to the Imperial Oil's Saskatchewan headquarters and a national bank (New Future Building Group, n.d.), the Derrick building was converted into Renaissance Retirement Residence, a 164-unit senior housing in downtown Regina (Figure 5.1). The new building has a variety of unit sizes and targets low to moderate income seniors. The adaptive reuse incorporated environmentally sustainable features such as geothermal heating and cooling, solar heated domestic hot water, a waste heat recovery system and an energy efficient building envelope. Additional floors were added to provide more space for community amenities. The project was financed by all three levels of governments through a combination of financial and fiscal support as well as the private developer (Province of Saskatchewan, 2005).

Angus Shops (Montreal, Canada)

Once the workspace for 12,000 workers of the Canadian Pacific Railway ("CPR"), the 50-hectare site was left abandoned after CPR ceased its operations here permanently, leaving the site heavily contaminated and thousands of local residents without jobs (Société de développement Angus, n.d.). The site's original redevelopment into a shopping mall was met with fervent opposition from the local community who demanded the industrial heritage is preserved. The Rosemont Housing Committee fought for the inclusion of social housing in the redevelopment project (Comité logement Rosemont, 2017).

Figure 5.2: Angus Shops Redevelopment in Montreal, Canada

Source: (construx.co, n.d.)

The first phase of redevelopment saw Angus Shops (Figure 5.2) transformed into a mixed-income housing complex in which 40% of the 2,587 units is social housing targeted at low to moderate-income seniors and families. Subsequent phases also added retail and job opportunities as well as more residential units in which 20% is social housing for local residents (Bélanger & Fortin, 2018). Overall, the rehabilitation project was successful at lowering the unemployment rate of the neighborhood and infusing a large number of social housing units in numerous tenure structures ranging from cooperative units, affordable rental to subsidized-ownership units. However, the revitalization of this neighborhood has also brought in an influx of new condominiums and businesses that would bring about gentrification as suggested by the Rosemont Housing Committee (Comité logement Rosemont, 2017).

Carnegie Place Apartments (Iowa, United States)

The former Sioux City Public Library was converted into a 20-unit low-income apartment, home to a diverse mix of seniors, singles, families, and persons with disabilities in the city center (Figure 5.3) (National Park Service, 1999). Often considered the first adaptive reuse project to successfully apply for both the LIHTC and HRTC, the project lauded for its ability to leverage on several grants and subsidies from all levels of governments to make it financially viable. However, as the building was not listed in the National Register of Historic Places, the project team had to spend time undergoing a nomination process in order to qualify for the HRTC. The project was also successful at harmonizing the need to refurbish the buildings to meet modern building codes and the desire to preserve historically important features. Its legacy also includes the improvement of the area's public realm and acting as a catalyst for the neighborhood's revitalization. The project's preserved historic character has also been linked to low-income residents' lessened stigma perceived as turnover rate was zero in the first one and half years and significantly lower than the average of 29% for affordable housing in subsequent years.

Figure 5.3: City Free Public Library converted into Carnegie Place Apartments in Sioux City, Iowa.

Source: (Ammodramus, 2012)

Recommendations

Through literature review and evaluation of the strengths and weaknesses of notable case studies, this paper proposes how adaptive reuse of obsolete historic buildings to affordable housing could be effectively done in Canada. The recommendations in Table 5.1 are presented in accordance with the four aforementioned synergies for both public and private sectors.

Table 5.1: Comparing the Case Studies Across the Four Synergies

Case Study Comparison				
	Funding Synergy	**Environmental Synergy**	**Location Synergy**	**Social Synergy**
Renaissance Retirement Residence **Regina, Canada**	Only funding for affordable housing was utilized	Not only the building's embodied energy was reused, new energy-efficient features were also introduced	Downtown location with abundant access to social services	None
Angus Shops **Montreal, Canada**	Only funding for affordable housing was utilized	Environmental decontamination was carried out to rid site of heavy metals, petroleum and hydrocarbons was Energy-efficient features were embedded into the redeveloped complex	None	Local community rallied to protect the industrial heritage of the site. Unemployment rate declined
Carnegie Place Apartments **Iowa, United States**	Utilized both funding reserved for affordable housing and historic resource preservation	None	Located in downtown with high need for affordable housing	Historic quality reduces the stigma of residents of affordable housing Acted as an important component of neighborhood revitalization

Source: Author, 2021

Funding Synergy

The experience of Carnegie Place Apartments shows that undergoing a formal historic status designation process in order to qualify for preservation financial and fiscal incentives takes a long time and could have derailed the adaptive reuse project. Therefore, cities should take stock of all buildings with significant historic values as well as those identified with high potential for adaptive reuse and nominate them for relevant designations that will qualify them for available historic preservation grants.

Additionally, Canada could provide fiscal support in the form of tax credits similar to the US' LIHTC and HRTC. In the Carnegie Place Apartments rehabilitation project, approximately $1,000,000 of equity out of the $1.8 million price tag for the project was raised through the syndication of both LIHTC and HRTC (National Park Service, 1999). Such a tax incentive will allow non-profit organizations to benefit from a tax expenditure, namely capital cost allowance which has been enjoyed by private developers. Under a LIHTC-style system, provinces are likely able to allocate tax expenditure based on their respective priorities (Steele & Des Rosiers, 2009).

From the case study of Carnegie Place Apartments, private developers wishing to take advantage of this funding synergy need to be mindful and compliant with both requirements stipulated by the respective grants under historic preservation and affordable housing.

Environmental Synergy

Despite the numerous benefits of adaptive reuse, the literature on challenges associated with such projects is also aplenty. Most challenges revolve around the technical aspects such as bringing the old buildings to meet today standards (Bullen, 2007), constraining structural elements of old buildings (Cox, 2004) and lack of compatible construction materials (Ryers & Mansfield, 2001). These barriers often delay adaptive reuse projects and the proposed work- around for them is often scrutinized by planning agencies which further lengthen the projects.

In order to encourage more adaptive reuse projects, municipalities should work with private developers especially those experienced in such projects to establish a list of good practices to overcome common technical challenges faced during rehabilitation process. These practices are presumable pre-vetted by planning agencies and development proposal that include these practices should be fast tracked. Additionally, due to complex and uncertain nature of adaptive reuse projects, planning agencies should adopt a culture that embraces innovation and not punish them with long approval processes. The cases of Angus Shops and Renaissance Retirement Residence also demonstrate the importance of adaptive reuse projects to incorporate energy-efficient features.

Location Synergy

Langston and Shen (2007) found the need for zoning change in adaptive reuse projects to allow residential use often has detrimental implications on the project's timeline and budget. As such, during the process of formal nomination for historic designation recommended above, planning agencies should also put in place a policy framework that would allow for easy land use change if not pre-zoning them beforehand to allow for inclusion of affordable housing.Private developers should be mindful when selecting obsolete historic buildings as their proximity to transit hubs and amenities are essential for future affordable housing residents.

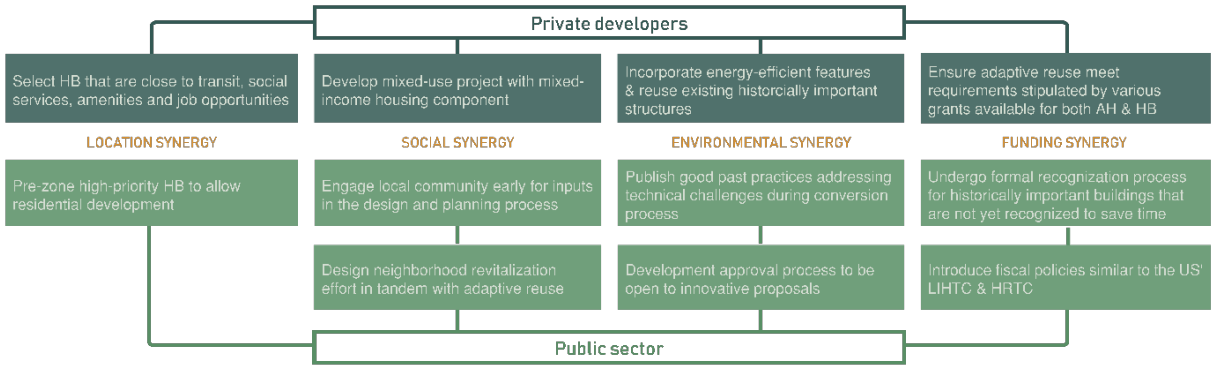
Social Synergy

Razzu (2005) drew a conclusion that in order for adaptive reuse projects to be successful, community consultation must be a priority because it demonstrates not only good governance but also helps identify the critical cultural elements that make the community proud which echoes with the experience in Angus Shops redevelopment. This is especially relevant when more and more critics call for the preservation of community character not architectural conservation through adaptive reuse (Lubens & Miller, 2002-2003; Miller, 2004).

The use of adaptive reuse project of historic buildings as a catalyst for neighborhood revitalized is well accepted as a positive practice of preservation (Listokin, Listokin, & Lahr, 1998). Its spillover effects on housing production, economic improvement and heritage tourism are well documented (Ijla, Ryberg, Rosentraub, & Bowen, 2011). Therefore, it is strategic that cities holistically plan for neighborhood revitalization efforts around the adaptive reuse projects, in this case the affordable housing project to capture the most of these potential benefits and ensure that the distribution of them is fair.

For private developers, the social synergy is dependent on the ability to create a delicate social mix that arises out of a mixed use, mixed income housing development in the Angus Shops example (Figure 5.4).

Figure 5.4: Recommendations for Adaptive Reuse of Historic Buildings into Affordable Housing



Source: Author, (2021)

Conclusion

The synergies between historic preservation and affordable housing are indisputable. The question of whether these synergies are valid in the Canadian context could hopefully be answered with relevant examples consolidated in this paper. Lastly, the recommendations proposed in this paper are by no means exhaustive, but they serve as a good foundation to catapult adaptive reuse projects of this nature into the forefront across Canada.

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6

ADAPTIVE REUSE OF THE WINDSOR ARMOURIES

Jessica Barry

Introduction

The Major F.A. Tilston VC Armoury (commonly referred to as the Windsor Armouries) is designated under the *Ontario Heritage Act* by the City of Windsor in recognition of its heritage value. Between 2013 and 2018, extensive renovations were made to repurpose the historic Windsor Armouries for academic use (Figure 6.1). The transformation of the Windsor Armouries into the University of Windsor's School of Creative Arts is presented as a case study of adaptive reuse of a heritage resource that contributed to local downtown revitalization efforts and fulfilled the needs of its community while retaining its historical integrity.

Figure 6.1: The North Side of The Windsor Armouries

Source: The University of Windsor's School of Creative Arts

Background

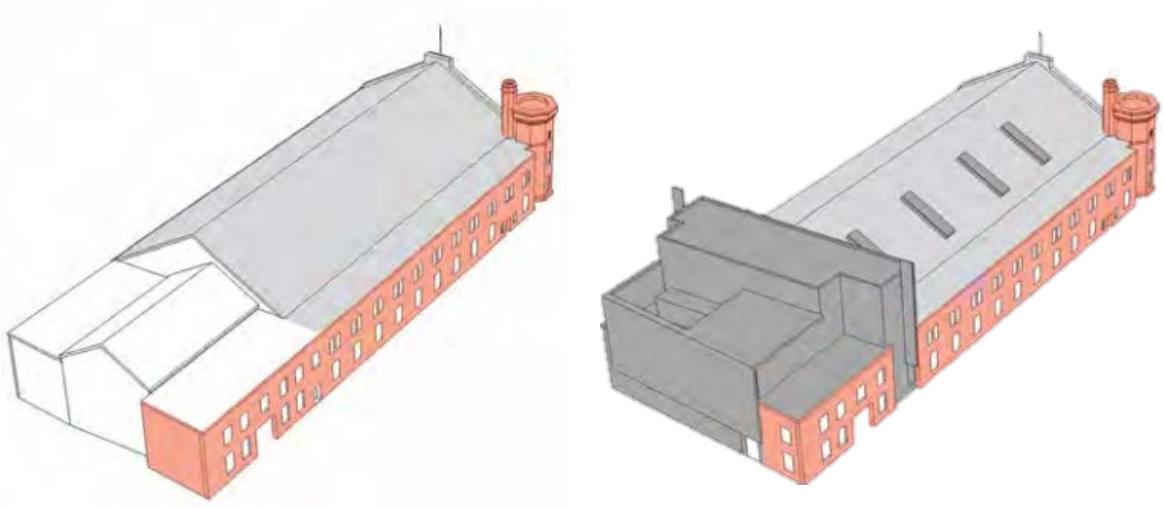
The Windsor Armouries is a two-storey, red brick structure with cut stone foundation and trim. It features bold stone entrances, mighty oak doors, oversized arched windows, and a three-storey tower. Its design is reflective of the popular Richardson Romanesque architectural style of Canadian military buildings of the early 20th century.

The Windsor Armouries was built between 1900 and 1902 to replace the collection of wooden barracks near City Hall Square. A complementary two-storey addition was built on its south side in 1935. As the home of the 21st Regiment (the Essex Fusiliers), the Windsor Armouries was used for drilling and training, stationing, and recruitment. In addition to its military function, the Armouries was also used by the community as a venue for events and trade shows. The hall was later renamed the F.A. Tilston Armouries Building, in honour of the Colonel F.A. Tilston, a recipient of the Victoria Cross. The Armouries was decommissioned in 2004 and sold to the City of Windsor ("Windsor Armouries," n.d.).

After years of debate and discussion regarding the future of the Windsor Armouries, extensive renovations were made to repurpose the historic building for academic use (Figure 6.2). The rehabilitations included:

- For the original 1900-1902 block: maintaining and restoring exterior elements and installing windows and doors suitable to the building as a heritage site;
- Retaining the 1900-1902 walls in-place while excavating a full basement storey for required program space.
- To the 1935 addition- adding a roof top addition, modifying the entry facing to Freedom Way as an active entrance, and developing a contemporary design for new south and west elevations of the 1935 addition.

Figure 6.2: Original Windsor Armouries and the Alterations to the 1935 Addition



Source: Lewin & Goodman

Key Issues

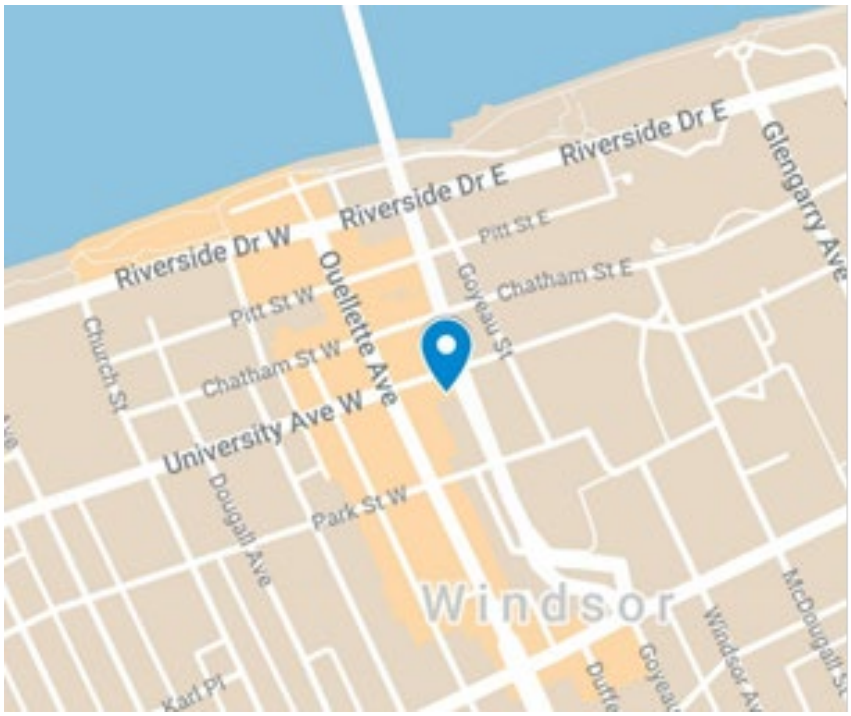
Contributions to Downtown Revitalization Efforts

As Canada's southernmost city, located on the US-Canada border directly opposite Detroit, Windsor is a major international gateway and one of the busiest border crossings in the country. For most of the 20th century, Windsor was an industry powerhouse. The presence of the "Big Three" North American auto companies- General Motors, Ford and Chrysler- made Windsor the "Auto Capital" of Canada. This industry later expanded to include a huge parts sector with numerous tool, die and moulding companies (Van Alphen, 2008).

While Windsor has been prone to economic booms and busts, the once-mighty industrial city was severely impacted by the 2008 Financial Crisis, which hit manufacturing and auto sectors the hardest. At the peak of the crisis, Windsor's unemployment rate hit a high of 15.2 per cent (Hall, 2011). The economic downturn was especially visible downtown, where vacant storefronts and empty office buildings spread like a cancer across the main shopping streets (Spalding, 2014).

While the Financial Crisis expediated the decline of downtown Windsor, like many downtowns across North America, it had already been struggling for years. Indeed, the Windsor Armouries, which is only a block away from Ouellette Ave, the main commercial street in downtown Windsor corridor, had been vacant for four years when the Financial Crisis struck (Figure 6.3).

Figure 6.3: Map Showing the Location of the Windsor Armouries in Downtown Windsor



Source: Google Maps

Recognizing the importance of having a vibrant and viable downtown, the City of Windsor made downtown revitalization a priority in its planning policies and pursued partnerships with key stakeholders to encourage investment and development in the area ("Investing in Downtown Windsor"). One such partnership was made in 2011 between the City, the University of Windsor (UWindsor) and the Government of Ontario to preserve the vacant historical building and turn it into a learning centre. As part of the agreement, the City transferred ownership of the building to UWindsor and contributed $10 to the project, while the Province and UWindsor each contributed $15 million. Construction began in the spring of 2013 and UWindsor's School of Creative Arts officially opened its doors on March 22, 2018 (Viau, 2018).

The adaptive reuse of the Windsor Armouries has been a mutually beneficial project for UWindsor and downtown. Prior to the renovation, the UWindsor's creative arts program was spread across several buildings on campus. As explained by Thorkelson (2018), "Bringing together the music, visual arts, architecture, film and media arts departments under one roof has encouraged a whole new level of collaboration and invention amongst the faculty and student body: film and music programs have come together to explore movie scores, and architecture students are working with their department to reimagine campus spaces." The new location also brings the students closer to other cultural institutions located in downtown Windsor, such as the Art Gallery of Windsor, Windsor Symphony Orchestra and the many theatre companies, thereby allowing the opportunity for increased collaboration with each other.

As for downtown, the influx of thousands of students and faculty have breathed new life into the area. In fact, the increased foot traffic, along with financial incentives offered by the Downtown Windsor Business Improvement Association, have encouraged new businesses to open or existing ones to expand to cater to the student demographic (Cross, 2019). Restaurants are especially busier since the plans for the transformation of the Armouries purposely did not include a cafeteria, thereby encouraging the thousands of people studying and working at the facility to visit local businesses for food (Fantoni, 2012).

Uses

As with all cases of adaptive reuse, the successful rehabilitation of the Windsor Armouries weighed heavily on the appropriateness of its chosen future function. Amongst other factors, the new purpose needed to be compatible with the building's character, location and architectural assets. Due to its nature as an urban fortress, repurposing the Armouries posed challenges.

The Windsor Armories is a commanding structure. It was built with room to provide training and social space for the Essex Fusiliers, to store arms and ammunition, and to provide living quarters for offices. Its massive scale, both in size and in the thickness and weight of the walls (in some places two feet thick) and other structural supports, is a challenge when adapting its spaces to other uses (Waddell, 2015).

To explore possible functions for the Armouries, the City of Windsor created the Armouries Re-Use Committee. Knowing that the project could be used as a catalyst to inject life into the downtown, the Committee initially proposed converting the Armouries into a major performance space, complete with a four-screen multiplex theatre and an outdoor-indoor performance stage ("Armouries plan unveiled"). For years, the $30 million concept was the subject of assessments, fundraising and news conferences, but ultimately the idea lacked financial support from external stakeholders (Chen, 2011).

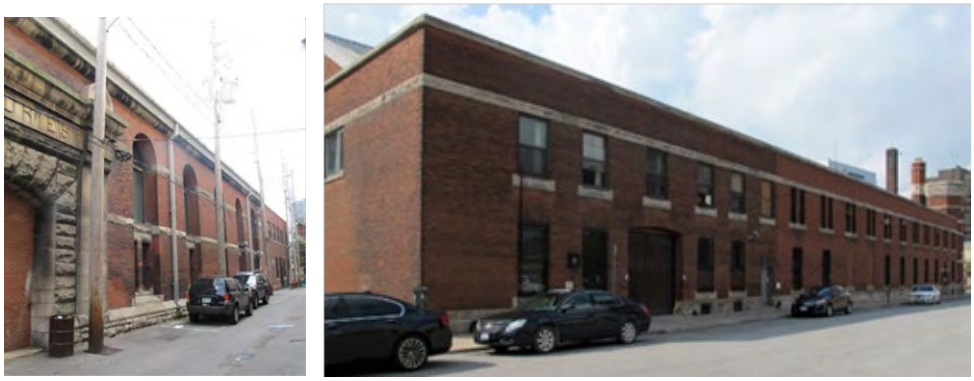
While the cavernous building would have provided premium acoustics as a concert hall, the ambitious plan was replaced when the UWindsor proposed its vision of creating a downtown campus that would better support the City's downtown revitalization efforts. Indeed, this collaboration between the City and the UWindsor reflects a recent trend across the country wherein postsecondary institutions and municipalities are joining forces to realize their respective ambitions (Thorkelson, 2018). In this case, the City of Windsor, a once dominant automotive city struggling to redefine itself, and UWindsor, a consistently low ranked university by Maclean's, seeking to raise its profile ("Canada's best universities by reputation: Rankings 2021", 2020).

Heritage Designation

Committed to retaining the look, feel and history of the building, the University of Windsor engaged CS&P Architects Inc., working with ERA Architects (heritage consulting architects) and Colliers Project Leaders, to reimagine the century-old Armouries as a new space for learning and community engagement, while maintaining the integrity of the building to pay homage to its past (Armouries restoration receives heritage recognition, 2019). Due to the Armouries' heritage designation, all additions and alterations had to first go through a strict municipal review process to ensure any work would not compromise the structure's heritage value. As part of this process, ERA Architects Inc. presented a Heritage Impact Assessment of the Windsor Armouries to the Windsor Heritage Committee and the City's Planning and Economic Development Standing Committee for approval. The Assessment included the rehabilitation plans for the Windsor Armouries by CS&P Architects Inc., which aligned with the recommendations in the *Standards & Guidelines for the Conservation of Historic Places in Canada* (City of Windsor Report).

Since the heritage value of the Windsor Armouries lay in its architecture, those key elements that represent the design of Armouries built around 1900, the consensus was to protect the exterior of the original building (Figure 6.4). ERA Architects described the rehabilitation approach as "insert[ing] a brand-new purpose-built facility within the existing masonry" ("Windsor Armouries-UW", n.d). However, the existing structure did not provide enough space to meet the university's needs and since the exterior walls needed to be preserved, the design solution was to expand downwards. An interior excavation created a lower level of almost 20,000 square feet to provide the necessary classroom and performance space (Procter, 2015).

Figure 6.4: West and East Side of the Windsor Armouries



Source: Lewin & Goodman

Transferrable Lessons for Currie

Appropriate Use

When applying adaptive reuse to a heritage building, it is important to recognize that not all buildings are appropriate for all uses. Uncontrollable factors, like architectural limitations, building code requirements, and the public's perception of a space, will impact what uses will succeed in a heritage building (Figure 6.5). The transformation of the Windsor Armouries into the School of Creative Arts has been successful because its new purpose was appropriate for the structure and was supported by the community.

Figure 6.5: Reshaping the Interior of the Windsor Armouries.

Source: University of Windsor

Inspiration from Building's History

Connecting the new function of a heritage building to its history can be challenging. With the Windsor Armouries, its tradition of teaching and training has continued with its new role, except the subject matter has changed from military drills to the creative arts. Regardless of whether a direct link can be made between the old and the new function, the history of the site can always be a source of design inspiration when readapting a heritage resource.

The Windsor Armouries has done this in several ways. Firstly, the distinctive large open feel of the 1902 drill hall was retained during the renovations by incorporating a floating second floor with portions of the ground floor being open to the ceiling (Figure 6.6) (Waddell, 2015). Secondly, the restoration has given gone even further to pay homage to its exhibiting a "Heritage Wall" of glass panels that tell the Armories' history through photos and text. Lastly, the building's imposing foyer has been renamed Veterans Hall.

Reuse Original Materials

Salvaging original materials is both an environmentally sustainable building practice and a way to connect with the building's history. This practice was followed with the renovations of the Windsor Armouries, as further detailed by Coleman (2019): "the bricks that lined the interior of the building were cleaned and repointed, new windows were custom built to match the original look of the building, and the oak doors at both entrances were restored. Furthermore, the 12, 000 bricks from the 1935 addition at the south end of the building were dismantled, cleaned and reinstalled to clad a new 150 seat performance centre". Lastly, a wrought-iron spiral staircase, which no longer met building codes, now hangs from the ceiling as a piece of sculpture (Figure 6.6).

Figure 6.6: Creative Reuse of Original Design Elements

Source: University of Windsor

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7

ADAPTIVE REUSE OF THE ARTSCAPE WYCHWOOD BARNS IN TORONTO

Tina Dadgostar

Introduction

Artscape Wychwood Barns was born from the redevelopment of a 5-acre (2 ha) brownfield site located in the middle of an established downtown neighborhood and includes the conversion of an abandoned streetcar storage and repair facility into a new multi-use community facility, as well as the creation of a new municipal park on the grounds of the old train yards. Programming for the facility includes 26 affordable live/work artist studios, 15 work only artist studios, office space for 11 environmental not-for-profit organizations, a small children's theatre, and a community food hub including a production greenhouse, teaching space with commercial kitchen, community gardens and space for a farmers' market. This is the first LEED Gold development in Canada involving a designated heritage structure, the project includes a geothermal energy system and extensive rainwater harvesting (Table 7.1).

Construction began in March 2007 and was completed in October 2008, with the Official Public Opening taking place on November 20, 2008. Since 2001, Artscape has been working in partnership with the City of Toronto and The Stop Community Food Centre to create the Artscape Wychwood Barns. The vision for the reuse of the barns was developed through a rigorous examination of precedents from other communities in the UK, Europe and North America, an extensive process of community consultations and Artscape's own experience in creative community building.

Table 7.1: General Information

Address	601 Christie Street; 76 Wychwood Avenue, Toronto, ON
Current Official Plan Land-Use Designation	Parks
Current Zoning	Mixed (special)
Heritage Status	Individually Designated Heritage Property under Part IV (individual) of the Ontario Heritage Act on April 16, 1998 (By-law No. 1237-2007)

History

The Wychwood Car Barns, built in three stages over an eight-year period in the early part of the 20th century, served as the western terminus of the rapidly expanding streetcar system in Toronto, providing an essential transit service to the city's growing population (Figure 7.1). The five barns, located immediately adjacent to one another, are each about 40 ft. (12m) wide and 200 ft. (60m) long, and were built with a combination of steel frame (Barns 2 and 3) and concrete frame construction (Barns 1, 4 and 5). The first barn was constructed by the Toronto Civic Railways in 1913 to service a new east/west streetcar line along St. Clair Avenue. By the end of the third and final phase of expansion in 1921, and the completion of the fifth barn, the City had taken over operations and formed the Toronto Transportation Commission, later renamed as the Toronto Transit Commission (TTC). The structure was built with utilitarianism in mind and is considered to be a prime example of the classic revival industrial style. In the period that followed their initial development, the barns serviced 10 routes and 167 streetcars, providing employment for hundreds of workers (Figure 7.1). However, as the city continued to expand over the course of the 20th century, the location became less practical as an active transit hub, and by 1980 the use of the site had diminished substantially. By the middle of the 1990s, the site was declared surplus to the needs of the TTC and ownership was reverted to the City of Toronto (Lobko, 2011).

Figure 7.1: Historical View of the Barns

Source: City of Toronto Archives, Fond16

Statement of Cultural Heritage Value

The Wychwood Car Barns have design value as rare surviving examples of buildings associated with the origins of vehicular public transportation in the City of Toronto. Historically, the site contains what is purportedly the oldest surviving car barn (1913) built for the Toronto Civic

Railway. Historically, the complex is associated with the expansion of transportation services in Toronto and innovations in transit equipment.

The Wychwood Car Barns functioned as an operating division of the TTC until 1978. Obsolete Presidents' Conference Committee cars, first introduced on the St. Clair line in 1938, were stored in the car barns, along with the only Prototype Articulated Light Rail Vehicle (ALRV) ordered by the TTC. The remainder of the property was leased to the Ontario (later Urban) Transportation Development Corporation for the testing and retrofitting of Canadian Light Rail Vehicles (CLRVs). Prior to the closure of the site in 1985, the linear induction-powered Intermediate Capacity Transit System cars for the Scarborough Rapid Transit Line were retrofitted here (Figure 7.2). As a complex of buildings in a park-like setting, the Wychwood Car Barns are an important neighbourhood landmark. The site is located directly north of Wychwood Park, the residential neighbourhood that was the first Heritage Conservation District in the City of Toronto (City of Toronto, 2007).

Figure 7.2: Wychwood Barns Timeline

Source: Content by Artscapediy and organized by Author, 2021

Heritage Attributes

The heritage attributes of the Wychwood Car Barns are associated with their design value as rare examples of industrial buildings associated with the transportation history of the City. Specific

design elements define exterior walls and roofs of the four northernmost car barns dating to 1913 (north centre), 1916 (south centre), and 1921 (north and south), consisting of:

- Rising the equivalent of two stories, the post and beam structures that are built of steel and concrete and clad with red brick.
- Above metal cornices, the roofs (some with metal trusses) that incorporate skylights extending the length of the buildings.
- The 1913 and 1916 barns exposed east and west elevations have parapets surmounted by pediments containing date stones (marked “1913” and “1916”, respectively) on the east and blank roundels on the west.
- Attached to the north side of the 1913 structure, the northernmost car barn (1921) with the trio of round-arched openings on the east façade, the organization of the west wall into two bays and, along the north elevation facing Benson Avenue, the flat-headed window openings separated by concrete piers with brick corbels.
- On the 1921 car barn, the parapet end walls featuring pediments with a date stone (marked “1921”) on the east and a blank roundel on the west, and the door openings with bi-folding hinged wood doors on the east and west walls (City of Toronto, 2007).

The Vision

The vision for Artscape Wychwood Barns was not simply about re-using a building or co-locating a group of tenants within a re-purposed structure; it was also about building a community within and beyond the walls of the project. It was envisioned as a place that could help heal the differences in the community and become a meeting place for area residents (Ways to overcome pain. “n.d.). Artscape and the community envisioned the adaptive re-use of the structures, which would allow for a mix of office spaces, artists’ studios, affordable live/work accommodation for artists and their families, and community space. At its core, the Artscape Wychwood Barns was imagined as a multifaceted community center where arts and culture, environmental leadership, heritage preservation, urban agriculture and affordable housing were brought together to foster a strong sense of community.

The project would seek excellence in environmental design and recognition through the Leadership in Energy and Environmental Design (LEED) Green Building Rating System. The open land on the site would incorporate park elements such as a dog run, playground and skating rink. Finally, the project vision was based on the idea that a diversity of uses always makes for a more animated and successful facility. By mixing a wide array of tenants from a variety of backgrounds and disciplines, Artscape Wychwood Barns was designed as a platform for collaboration where an organic mix of people and ideas would come together in unexpected ways to build a better community and city.

Approach

The project faced two important challenges; engaging with residents to achieve consensus and creating a feasible and environmentally friendly design that would save as much of the heritage buildings as possible. Redevelopment was a difficult and expensive proposition for several reasons. The site was contaminated with creosote, asbestos and lead, for instance, while the heritage designation precluded demolition of the buildings. Residents of the surrounding neighborhoods held starkly different opinions about redevelopment

Artscape engaged in a long process of community consultation, hoping to involve local residents as much as possible in the creation of the Artscape Wychwood Barns. Design charrettes, a community advisory group and community meetings gave residents the opportunity to get involved in the decision making process at different stages. This engagement process enabled Artscape to speak with hundreds of local residents, many of whom initially opposed the project. Concerns about parking, traffic and noise were studied and addressed, and gradually opposition to the affordable artist live/work units diminished (see the timeline of adaptive reuse development in Figure 7.2). The project grew stronger through this engagement process and many of the design and space allocation decisions were a direct result of the input received at these meetings (Ways to overcome pain. “n.d.).

The diverse uses attracted financial contributions from many sources and construction began (Figure 7.3). Contaminated soil was removed; energy- and water-saving amenities were installed, including a geothermal system to heat and cool the buildings, energy-efficient lighting and appliances, low-flow water fixtures and a rainwater-collection system for toilets and irrigation. The project aimed to emit approximately 40% fewer greenhouse gases, and consume 60% less drinking water and 40% less energy than conventional buildings.

Figure 7.3: Wychwood Barns Redevelopment

Source: Artscapediy

Figure 7.4: Artscape Wychwood Barns Post Adaptation

Source: Wikimapia Photos

Design

The design of the Artscape Wychwood Barns had several objectives: environmental sustainability, heritage preservation and community interaction space. The character and uniqueness of the barns was retained wherever possible, including their large entrances and long open spaces Figure 7.4). In some cases, the existing elements were not structurally sound and had to be replaced – for instance, the wooden roofs that had rotted over time were replaced with ones of a similar style, made of recycled metal. In other cases, the existing architectural elements were restored, such as the brick walls, which were sandblasted to remove years of flaking paint. A Heritage Easement Agreement between the City and Artscape spelled out which features of the buildings were protected. Artscape Wychwood Barns comprises five programmed components: The Studio Barn, the Covered Street Barn, the Community Barn, The Stop Community Food Centre's Green Barn and the 5th Barn (see Figure 7.5).

- **The Covered Street Barn** provides affordable community space, including access for community events, exhibitions, festivals, etc. The Covered Street Barn provides an area for vendors to create a hub of economic activity in the neighborhood.
- **The Community Barn** provides affordable programming, rehearsal, office and meeting space to not-for-profit community arts and environmental organizations.
- **The Studio Barn** provides 26 live/work studios and 14 work-only studios to professional artists, as well as a Community Gallery.
- **The Stop Community Food Centre's Green Barn** is operated by The Stop Community Food Centre and houses a year-round temperate greenhouse, sustainable food education center, sheltered garden, outdoor bake oven and compost demonstration site.

- **The roof of the 5th Barn** was demolished, and the remaining structure was integrated as an architectural feature in the surrounding park. The Stop now manages gardens within the 5th barn that feature native plant species from different regions of the world (Ways to overcome pain. “n.d.).

They developed a brand identity and wayfinding system that incorporates and respects the site’s heritage, but also signals the building's new purpose. Each barn is designated with a different color, and the bands of five colors are used in rings on the smokestack of the first barn, proudly announcing the reborn facility to the wider community. The identifying colors are also used in the visual identity and throughout the wayfinding system. Big bold numbers over the gates of the barns serve as reminders of when the spaces served a utilitarian function. A collection of historical images embedded within the signage program tells the story of Wychwood’s heritage.

Figure 7.5: Adaptive Reuse of Wychwood Heritage Barns

A. Barns, B. Indoor Market, C. Outdoor Market, D. Community Food Center, E. Signage, and F. Branding

Source: CodaWorx, Ryerson Carrotcity, Entro

Environmental Sustainability

Energy conservation, water conservation, the adaptive reuse of the existing structures, and an extensive landscape program became the key pillars of the environmental sustainability strategy. Artscape Wychwood Barns enhances the traditional concept of a park as “pleasure ground” by combining heritage preservation with current best practices in green technologies and environmental management. The Artscape Wychwood Barns project embraces environmentally sustainable design by responding imaginatively to the issues of brownfield redevelopment, water/energy conservation and the reduction of greenhouse gas emissions. Some of the Artscape Wychwood Barns’ LEED features include a geo thermal heating, ventilation and air conditioning system with ground source heat pumps; a storm water harvesting and reuse system; energy efficient lighting and appliances and water-conserving plumbing fixtures.

The Park

City of Toronto Parks, Forestry and Recreation has developed the 127,000 sq. ft (11,684 sq. m.) park area that surrounds the Barns on three sides (see Figure 7.6). Park features include a children’s play area, an open sports field with a natural ice rink in winter, a fenced in off-leash dog area, a beach volleyball court and picnic tables. In addition, approximately 150 trees, 1,500 shrubs and 900 perennials and grasses will be planted. The layout and uses of the project are intended to complement each other and create as few barriers as possible, both physical and conceptual, between tenants and the community, between the park and the buildings and between indoor and outdoor environments (Ways to overcome pain. “n.d.).

Figure 7.6 Artscape Wychwood Barns Site Plan

Source: Arcretrofitting

Lessons

Artscape developed and continues to operate the Artscape Wychwood Barns. It holds the sole lease with the City of Toronto for 50 years less a day, at $1 a year. Artscape is financially and legally responsible for the operations, subleases and license agreements with all tenants. Artscape is also responsible for all property management and base building operations, including tenant selection, maintenance, and capital repairs such as finances, insurance, fire safety plans, taxes and utilities. Programming is done by Artscape itself, The Stop, and other tenants of the building, while outside organizations can rent the main covered street barn to host their own events. The Wychwood Barns Community Association also helps program the site by curating the community gallery, programming community events, and engaging with residents. The barns are financially self-sustaining through revenue generated by tenant leases and event rentals.

In this case, the engagement of a broad range of community partners directly involved in the revitalization was an essential ingredient of ultimate project success. These community partnerships brought a diverse range of program activity to site, helped develop the base of political support required for project development, brought critical financial resources to the table and created an important sense of collective 'ownership' for this project, a critical aspect of their long term viability.

Environmental, economic, social and cultural sustainability emerged as a major theme of development. This started with the recognition of the inherent qualities of sustainability evident in the existing heritage structures. Food emerged as a major theme in this project, with space provision for food production and farmer's markets, a critical component of the public programming and operational sustainability.

The project explores and demonstrates emerging ideas about the evolving nature of public space with respect to program, character, form, and ongoing stewardship, all within an overall framework of sustainability.

The leadership of this project involving important historic sites within public ownership, came from not-for-profit entrepreneurial organizations, independent of but allied with government, and possessed with the freedom and creativity necessary to generate consensus around a vision and drive the project through the innumerable hurdles in the way of their realization.

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8

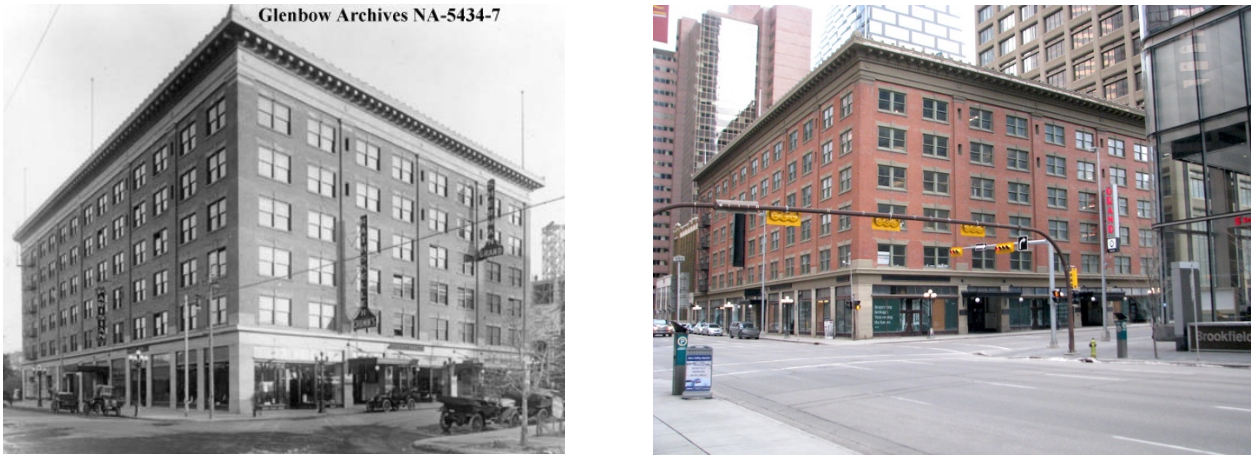
ADAPTIVE REUSE OF THE LOUGHEED BUILDING IN CALGARY

Dimitri Giannoulis

Introduction

This case study will evaluate the Lougheed Building (alternatively called the 'Lougheed Block') as an example of adaptive reuse of a historic resource (Figure 8.1). The prominent building has been threatened by demolition since the 1990s, with many discussions about how to conserve the building (Durrie, 2003). Although the uses of the building have changed many times (Durrie, 2003), the current plans for the building are a major undertaking (Dialog, n.d.).

Figure 8.1: Lougheed Building 1913 and 2021



Sources: (Left) Glenbow Archives (n.d.); (Right) Photo by author, (2021)

Studying this case serves the purpose of increasing the knowledge base for Canadian examples and uncovering lessons, which may be practically informative for future decisions made locally.

Objectives

The primary objective of this case study is to assess if the adaptive reuse of the building was successful at respectfully protecting the cultural significance of the heritage resource. The second objective is to predict if the reuse will be economically successful. The final objective is to analyze the broader social urban implications of the project. These three objectives create a triple bottom-line of heritage conservation, economic feasibility, and sociocultural benefit.

Before the objectives may be resolved, there must be three steps to adequately understand the case study. First, a summary of heritage conservation principles and concepts will lay the theoretical foundation. Subsequently, the heritage significance and Character-Defining Elements (CDEs) of the Lougheed Block must be detailed to explain the cultural specificity of the case study. Lastly, the material and immaterial story of the adaptive reuse of the site shall be told. Only thereafter may the objectives be addressed.

Heritage Conservation Concepts

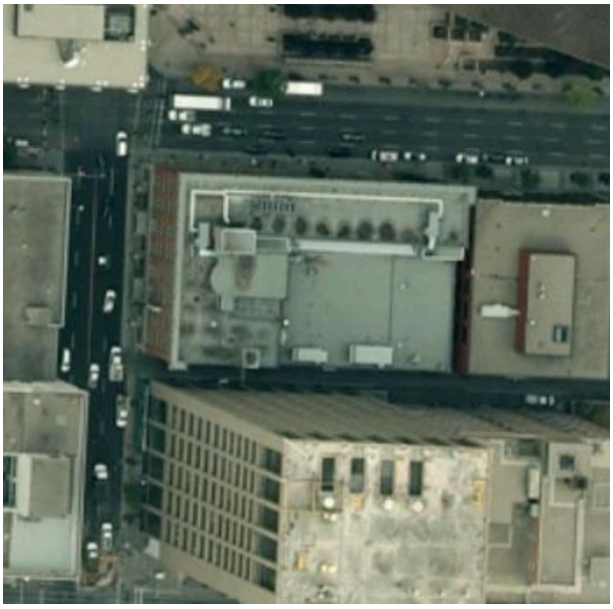
Heritage conservation has been studied widely because of its recognized sociocultural and economic importance, and increasingly, for its relevance for environmental sustainability (Fouseki, Guttormsen, & Swensen, 2020). Although heritage conservation is important, it may at times conflict with other priorities (Banderin & Oers, 2015). The Historical Urban Landscape (HUL) approach asserts that heritage is both tangible and intangible, constantly evolving, and that it may be considered beyond the building scale (Sonkoly, 2017). Preservation, restoration, and rehabilitation are three distinct treatments, each with their own merits and appropriate uses (Government of Canada, 2010).

Adaptive reuse is form of rehabilitation whereby a building or programmed area is repurposed for a different function (Yazdani Mehr & Wilkinson, 2020). In recent decades, adaptive reuse has been championed as a way to preserve historical places by giving them new life, protecting them from demolition (Plevoets & Cleempoel, 2019). The 1999 Burra Charter, updated in 2013, is an internationally recognized document of principles (Australia ICOMOS); the Charter advises to care for heritage places and make them usable by changing “as much as necessary” and “as little as possible” (p.1). Other relevant principles include do not create a false sense of history, and that new additions should be subordinate, compatible, and distinguishable from the historical features (Government of Canada, 2010).

Heritage Significance and Character-Defining Elements

The Lougheed Building is located at 604 1st Street SW at the intersection of 6th Avenue, in downtown Calgary, Alberta. The area is predominantly a mix of new and old high-rise office buildings, but Stephen Avenue is a nearby corridor with many heritage buildings. The Lougheed Building is six-storeys tall plus a basement, with direct frontage on the sidewalk and a rectangular massing. The building comprises of two components: an ‘L-shaped’ mixed-use building, with a rectangular theatre nested within the ‘L’ (distinguishable in Figure 8.2); the two are separated by a glazed light well. Originally completed in 1912, the building was formally recognized as a heritage resource by the City of Calgary in 2004, and Government of Alberta in 2005, as noted by the Canadian Register of Historic Places (CRHP) (2005).

Figure 8.2: Aerial Image of the Lougheed Building, 2011



Source: City of Calgary (2011)

Significant Heritage Value

As part of being formally designated, the Lougheed Building has an official Statement of Significance (SOS) from the City and Province. SOS' are of critical importance to guide adaptive reuse projects because they identify what may or may not be altered. Heritage significance may derive from an array of sources, as is the case for the Lougheed Building.

The Lougheed Building has significant heritage value for its association with a time period, construction style, architectural elements, sociopolitical notability, and association with the historic figure James A. Lougheed (CRHP, 2005). The early 1910s were a time of explosive growth in Calgary, and the Lougheed Building is a prime example of the economic growth and wealth of the day (City of Calgary, 2004). The building construction is provincially significant by being one of the first multi-use buildings, one of the first to use reinforced concrete, and an Albertan iteration of 'Chicago Style' architecture (CRHP, 2005). The social importance of the building is related to the theater for famous performers visiting and also as a locally adorned entertainment node (City of Calgary, 2004). Also, the building is significant for its association with locally powerful groups (related to agriculture and petroleum) and individuals, namely, James A. Lougheed (shown in Figure 8.3): influential in real estate, law, and businessperson (CRHP, 2005; Durrie, 2003). Thus, even by relation to immaterial themes and events, the Lougheed Building is definitively a heritage resource. Even so, many of the immaterial themes are embodied in distinct material features.

Figure 8.3: James A. Lougheed, 1920

Source: Glenbow Archives (n.d.)

Character-Defining Elements

The Character-Defining Elements (CDEs) of a heritage resource are akin to being the tangible representations of the heritage value of a building. CDEs are important to consider for adaptive reuse because they help give clear instructions regarding specific features or attributes that must be maintained. However, be warned, it is possible to conserve the CDEs and still excessively alter a resource beyond what was respectful (Australia ICOMOS, 2013). Table 8.1, below, is the list of 18 CDEs provincially identified as provincially significant, and therefore, protected (CRHP, 2005). The three main types are of CDEs are general, exterior, and interior. Recurrent categories emerged (e.g. the structure, materials, or use) and were applied to the CDEs. The scale of the CDEs range greatly from the ornamentation on glass to the massing of the building itself and major structural attributes. The CDEs correlate with the heritage value through materials and methods that represent the time of construction, the uses associated with the theatre and political bodies, and other unique features that make this an emblematic building for Calgarians and Albertans in general (Figure 8.4). How these CDEs have been treated for the adaptive reuse is critical for answering the first research objective regarding if the reuse has been respectful.

Table 8.1: Character-Defining Elements

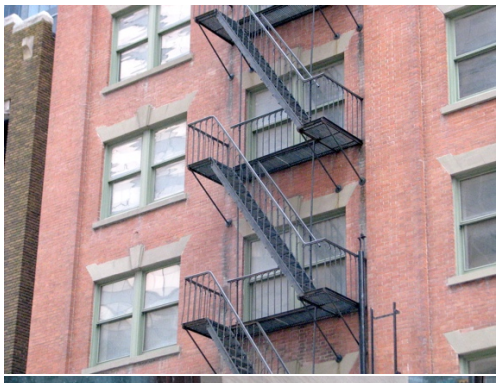
#	Type	Category*	Element (Verbatim from CRHP, 2005)
1	General	Structure	L-Shaped form and massing
2	General	Façade Materials	Brick and sandstone cladding
3	General	Location	Prominent corner location
4	General	Structure	Glazed light wells between the Lougheed Building and the Grand Theatre
5	Exterior	Façade	Chicago Style with the elevation divided into three distinct vertical zones
6	Exterior	Ornamentation Structure	Ground level large display windows; recessed store entrances; pilaster patterns defining ground floor storefront bays
7	Exterior	Use Feature	Theatre entrance on the west elevation and theatre exit on the north elevation
8	Exterior	Fenestration Façade Structure	Intermediate floors with grid-like fenestration pattern consisting of paired one-over-one, single-hung windows with sills and lintels; giant order brick pilasters with inserted fixed windows on top two floors
9	Exterior	Feature Materials	External steel exit stairs
10	Exterior	Fenestration Ornamentation Use	Small windows on top floor reflective of residential use and different coloured "graining" on window trim
11	Exterior	Structure	Attic section
12	Exterior	Structure Use	Penthouse
13	Interior	Structure Use	Theatre entrance foyer and corridor spaces
14	Interior	Materials Ornamentation	Remnants of ceiling and wall ornamental plaster and marble for the entrance foyer
15	Interior	Materials	Marble walls, tile flooring, and wood doors with clerestory glazing in the second-floor office halls and elevator lobby
16	Interior	Materials	Historic hardware, transoms and sidelights, and terrazzo flooring
17	Interior	Feature Ornamentation	Central staircase with original ornamental metal railings
18	Interior	Structure Feature	Connections between the two units, i.e. Lougheed Building and Grand Theatre

Source: Canadian Register of Historic Places, 2005.
**Categorization was done by the author, it was not included in the Register listing.*

Figure 8.4: Architectural Details of the Lougheed Building

A.

B.



C.

D.

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H.

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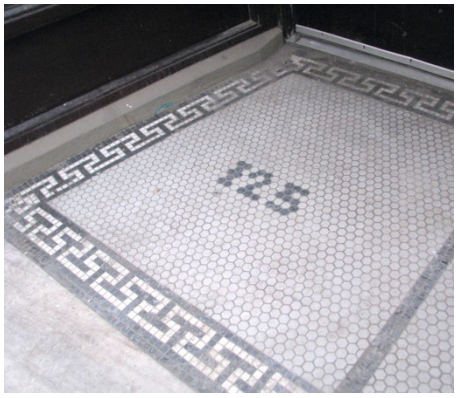
J. 

A. Cornice, B. External stairs and windows, C. Wood at base, D. Sandstone at base, E. Metal canopy, F. Interior Renovations, G. Lobby entryway, H. Entryway ceiling detail, I. 1st street lobby, J. Entryway tile pattern.

Source: Author, (2021) and Glenbow Archives (n.d.) (image I)

Adaptive Reuse

The Lougheed Building has undergone internal and external alterations and use changes throughout its history (Durrie, 2003), however, this case study will focus primarily on the most recent major rehabilitation strategy. In February 2020, a building permit was issued for the major interior renovation of the building to accommodate for high-end office space on all seven floors, with some commercial space shared on the ground floor, at an estimated cost of $7.8 million (Government of Alberta, 2021; Avision Young, 2021). The private project is being developed by Allied Properties, with architectural consulting by Dialog, construction by Stuart Olson, and real estate services by Avision Young. Publicly available project plans will be relied upon for evaluating the reuse because the construction is incomplete at the time of writing.

The renovations and additions include lobby renovations, office area renovations, and tenant amenities including a rooftop patio, lounge, bike storage, and fitness centre (Avison Young, 2021). Based on the marketing material, the exterior of the building, the lobby spaces, and the lightwell all contribute to the design and aesthetic appeal of the building (Figure 8.6). This shows some of the Character-Defining Elements (CDEs) being leveraged directly as assets. However, it is interesting to note the differences between the 1st Street and 6th Avenue entrances: the former retains a more historic appearance (note the floor tile pattern, ornamentation on the ceiling and walls, and the staircase with the metal railings – all being CDEs). This is opposed to the 6th Avenue entrance which adds distinctly contemporary materials and colours. Also, the office spaces are significantly altered in style and layout from the original construction (Figure 8.5). Compare Figures 8.7 to notice how there has been a shift in floorplan styles from separated offices to open concept. The new office spaces will not attempt to recreate the historic condition but do show some sympathetic detailing such as tall wooden baseboards and light walls and ceilings.

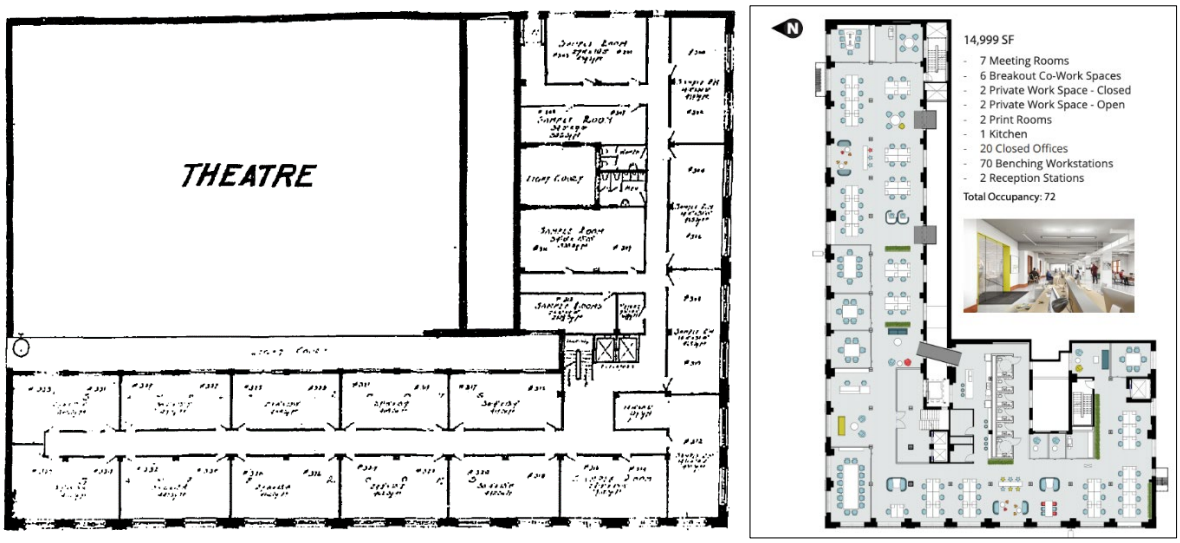
Figure 8.5: Interior Renderings of the Lougheed Building

Source: Dialog (2019)

Figure 8.6: Exterior Renderings of the Lougheed Building

Source: Dialog (2019)

Figure 8.7: Lougheed Building Floor Plans in 1912 and 2019



Source: Durrie (2003) and Dialog (2019)

The exterior of the building will not be significantly altered, judging upon the project plans available. Thereby retaining all CDEs associated. Interestingly, the streetlights proximal to the building were not identified as character-defining but have been conserved. A site visit determined that the current state of the exterior of the building is good, but mild deterioration and dirtiness were present. Construction on the ground floor was ongoing while a brief explanation of the building's heritage value was presented on the windows. A moment to celebrate the history and informing the public on about the restoration project.

Overall, this study evaluates the design decisions of the adaptive reuse as adequately respectful of the heritage value and CDEs of the Lougheed Building. The new interior design is modernized, but this is not an act of preservation or restoration. A change such as the floorplan reconfiguration of the offices does not contradict any heritage values or CDEs, and thus is an allowable adaptation. Moreover, the design decisions often accentuate the CDEs, such as the lobbies and lightwell, by bringing attention to them and valuing them. As a critique, the use of colour at times prevents the additions from being subordinate, however, the modern additions certainly do not create a sense of false history, which is positive. The minimal change to the exterior is excellent because no change was necessary. For the interior, changes were necessary to make the space viable, which makes it difficult to determine if the number of changes were excessive. However, the stance of this paper is that the interior changes were necessary to make this contemporary boutique office space potentially viable, ultimately conserving the heritage value of the resource.

Economic Success

The Lougheed Building is threatened by a poor local economy, however, there may be hope. As a combined result of oil's economic downtown in Alberta and the COVID-19 pandemic, office vacancy in downtown Calgary is at approximately 27%, and commercial spaces have also been dramatically affected (CBC News, 2021a; Labby, 2020). However, the uniqueness and flare of the Lougheed Building may mitigate the consequences by being attractive for creative and tech firms, which are showing some potential in Calgary (CBC News, 2021b). Thus, the charm of this heritage resource and the renovations made may be a saving grace in a dire situation.

Social Urban Implications

This adaptive reuse will be a positive addition to the public realm but remains a private-focused space. The human-scale massing, large-window retail bays, and unique ornamentation of the building are great assets for street life. Moreover, conserving this landmark is positive for sense of place and creating a diverse, interesting mix of buildings. The office space may help bring pedestrians and activity; however, the added amenities are solely for tenants, and the public may not feel welcome to enter the lobbies without a business purpose.

Conclusion

Based upon contemporary principles of heritage conservation, the primary objective was determined to be positive: the adaptive reuse was respectfully done. However, the holistic success of the reuse receiving mixed results. The primary threat to this project is the economic crisis in Calgary, potentially risking that the building will continue to be vacant in the near future. In 2003, Jacqueline Durrie re-imagined the building as a boutique hotel, cabaret, and restaurant: exciting ideas, but the profitability of those uses would have also been threatened in this economic climate. Thus, uncertainty is a perpetual challenge to adaptive reuse projects, but the history of the Lougheed Building proves that uses and users may peacefully change many times over many decades.

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9

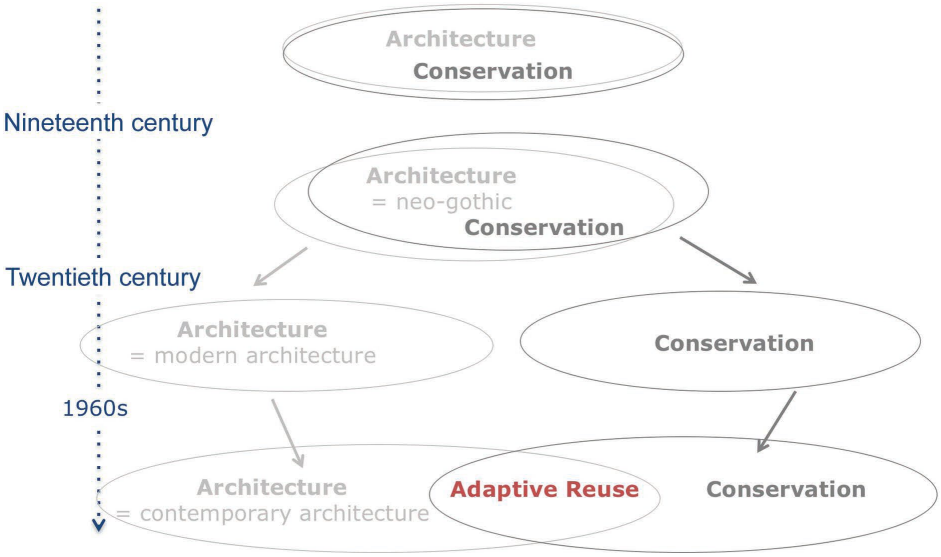
ADAPTIVE REUSE OF THE SIR JOHN A. MACDONALD BUILDING IN OTTAWA

Mina Rahimi

Introduction

Adaptive reuse today has become a professional practice in its own right that draws on expertise from various fields such as architecture, conservation, interior design, landscape design, planning, and engineering (Figure 9.1). However, in the past, the practice of altering existing buildings for new uses occurred spontaneously and was handled in a pragmatic way (Plevoets, & Cleempoel, 2019, 7).

Figure 9.1: Evolution of Adaption Reuse as a Discipline in its Own Right



Source: (Plevoets, & Cleempoel, 2019, 16)

In the process of adaptive reuse, the existing building stock is considered as a rich container of successive layers of materials, history, and narratives. Hence, adapting or reusing an existing building is always accompanied with a process of revaluation of its values and meanings. Various architectural strategies may be applied to deal with the material and immaterial aspects of the existing and to make a new and contemporary contribution to it (Plevoets, & Cleempoel, 2019, 28).

Description of the Historic Building

The Bank of Montreal is situated between Wellington and Sparks streets, opposite to Parliament Hill in Ottawa. Constructed from a monumentally scaled block of granite and limestone, the building features symmetrical façades and Modern Classical detailing. On its principal façades, large rectangular windows are separated by giant pilasters supporting an immense entablature. At the upper level, smooth surfaces serve as a foil for sculptured panels that carry nationalistic and didactic themes. The designation is confined to the footprint of the building (Historic Places, 2010).

The building's architecture is a significant example of modern classicism combining traditional beaux-arts planning and massing with Art Deco accents, refined stone detailing (both carved and smooth), substantial early-modern thin-framed windows, and elegant window grilles (Figure 9.2). It is a unique historic place with both exterior and interior heritage value and high material integrity. Its 900 square meter Main Banking Hall features original materials throughout, accented by a gently arching coffered ceiling with metallic paint finishes.

Figure 9.2: Sir John A. Macdonald Building

Source: (Canadian Interiors, 2018)

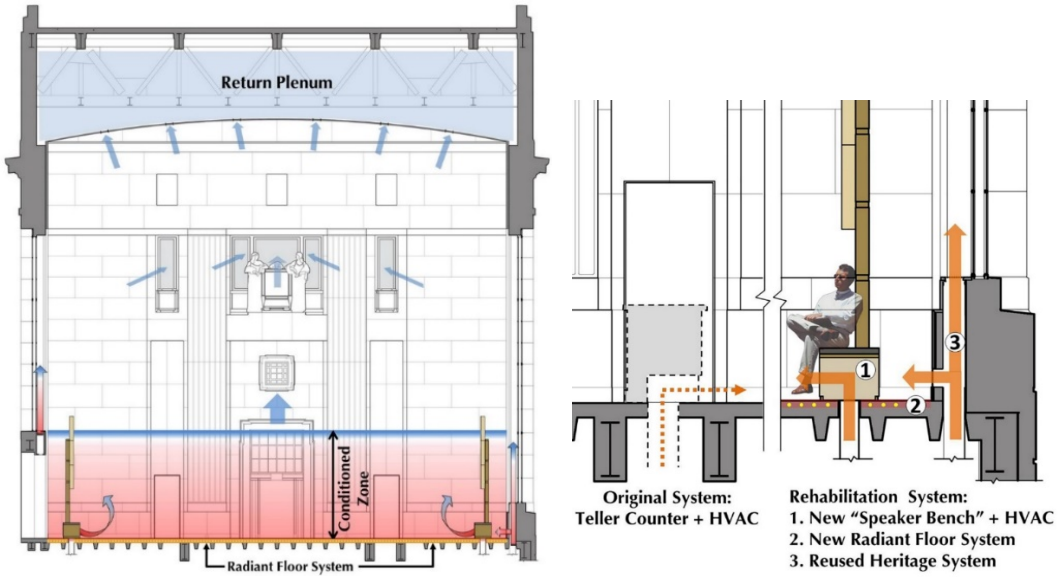
The rehabilitation of a range of original materials included removing, treating, and reinstalling the fine marbles and bronze/steel windows, augmenting/upgrading the structural, mechanical, and electrical systems, and inserting major new security, acoustic, and multimedia systems (Figure 9.3).

To accommodate a ten-fold increase in occupancy, a new hybrid system was inserted into the Main Hall, combining radiant heating/cooling and displacement ventilation. The system behaves similarly to the original mechanical system by delivering heating/cooling at lower levels, where it is most efficient. The project is on target for Green Globes 70 (LEED Silver equivalent) (Figure 9.4) (Building Resilience, 2020).

Figure 9.3: Interior Details Including a Coffered Ceiling and Bronze/Steel Windows

Source: (Building Resilience, 2020)

Figure 9.4: Mechanical System of the Sit John A. Macdonald Building



Source: (Building Resilience, 2020)

Heritage Significance

The Bank of Montreal is a Classified Federal Heritage Building because of its historical associations, and its architectural and environmental values.

Historical Value

Established in 1842, the Bank of Montreal is Canada's oldest chartered bank and the first institution to establish a branch office in Ottawa. Specifically designed offices were built on the present site between 1872 and 1873, but in 1929, with changing architectural tastes and residential needs, the old buildings were demolished and replaced by the current structure, making it a very good example of local development (Historic Places, 2010).

Architectural Value

The Bank of Montreal is valued for its excellent aesthetic design, exhibited in multiple architectural styles. The building features shallow, incised pilasters with simple cornices complimented by the flattened surfaces, sharply incised detailing and geometrical ornamentation derived from the Art Deco movement. The clarity of its massing and plan reveals the discipline of the architectural styles and demonstrate the very good functional design of the building. The bank's excellent craftsmanship and materials usage compliments the Beaux-Arts style with the use of various marbles on the interior paired with Benedict stone walls and intricately crafted bronze fittings topped by an arched and coffered plaster ceiling. For its depiction of modernized Beaux-Arts design in Canada, the building won the Royal Architectural Institute of Canada gold medal, thus making it one of the best examples of Ernest Barott's work in combining traditional bank design with philosophy and a nationalistic interpretation of international styles (Historic Places, 2010).

Environmental Value

The Bank of Montreal reinforces the unchanged historic and economic character of the present area as the longest unbroken financial relationship in the economic life of the city. For its historical associations with the financial structure of the community and the country, the building remains a familiar landmark within the city signifying the strength and solidity of the Capital (Historic Places, 2010).

Character-defining Elements

The character-defining elements of the Bank of Montreal should be respected.
Its excellent aesthetic design, craftsmanship and materials, and very good functional design as evidenced by:

- its monumental massing, designed in the traditional temple form with a symmetrical façade, entablature, and attic storey,
- its steel-frame construction, with a Stanstead granite base and Queenston limestone above.
- the elaborate Sparks Street and Wellington Street façades with central doorways with a carved molding and a superimposed sculpture of the bank's coat of arms above each,
- the arrangement of the tall narrow windows protected by intricately wrought metal screens,
- the Art Deco elements, including geometric ornamentation, sharply incised detailing, and flattened surfaces.
- the Modern Classical elements, including its shallow, incised pilasters, plain plinths and molded caps, a simple Doric architrave, and simple entablature,

- the allegorical and historical bas-reliefs (Emil Seiburn, sculptor) regularly disposed about its façades, which contributed to the search for a Canadian ornamental vocabulary active at that time,
- the interior layout of the building, including the spacious central banking hall,
- the interior materials, including marble floors with terrazzo inserts and mosaic inlay of intricate design, Benedict stone walls, black and gold marble dado bronze fittings, an arched and coffered plaster ceiling and bronze and stained-glass light fixtures,
- the interior detailing, finishes and decoration, including marble sculpted figures and provincial coast of arms; (Historic Places, 2010).

History Uncovered

During the rehabilitation of the Sir John A. Macdonald Building, workers made an interesting discovery. They uncovered a stone carving in its walls. It was about 150 centimeters tall and 100 centimeters wide and did not indicate the artist or the origin.

The carving features the Bank of Montreal's coat of arms, supported by two Aboriginal persons. The bank's motto, *Concordia Salus,* meaning "prosperity through harmony", surrounds the emblem. A beaver, the symbol of hard-working Canadians, sits on top of the coat of arms. The carving is painted bronze, with details in green, red, and gold.

An archival photograph revealed that a large stone tablet once sat on the 1872 building's outer façade. Although the poor quality of the picture does not confirm it is the same tablet, evidence suggests that it is. The tablet was removed by stonemasons and sent to the Canadian Museum of History for research and potential display at the museum (Building Resilience, 2020).

Architectural Qualities and Green Design

The building was designed by Montreal architect Ernest Barott and is a harmonious blend of Beaux-Arts and Art Deco architecture and design. Above the external doors and windows, limestone carvings depict Canadian industry and commerce. Decorations featuring Canada's wildlife and nature are found throughout the interior. Given its age, condition, prominence and strategic location near Parliament Hill, work began in 2010 to rehabilitate and expand the nearly 80-year-old building. The project was completed in 2015 (Government of Canada, 2020).

The Sir John A. Macdonald Building required an extensive rehabilitation. For example, most of the original building systems required upgrades to meet modern codes. The rehabilitation of the Sir John A. Macdonald Building included:

- a full heritage restoration of the building,
- structural and seismic upgrades,
- interior refurbishment,
- the replacement of the mechanical, electrical, plumbing and life safety systems; and
- the construction of an annex (Government of Canada, 2020).

The adaptive reuse reinforces the significance of the building, its architectural qualities and contribution to the streetscape. This continuity of the historic relationship is evidenced by:

- its prominent location on both Sparks Street and Wellington Street on one of the most accessible sites of the Ottawa downtown core,
- its design, function, and location, which makes it a familiar landmark for residents of the city and tourists. (Historic Places, 2010).

Green Initiatives

The Sir John A. Macdonald Building was rehabilitated with the intent to help green government operations by reducing Parliament's environmental footprint. Sustainable and energy efficient measures incorporated into the building include:

- a green roof with a variety of plants atop the annex to absorb rainwater, provide added insulation and reduce energy consumption and costs
- energy-efficient LED lights with sensors that turn off the lights when no one is in the office
- water-conserving features, such as new faucets and low-flush toilets
- automated building control systems for ventilation, heating, and cooling
- the reuse of limestone and other materials to repair the masonry and refurbish the interior
- the reuse of the former marble tellers' counters as counters and benches throughout the new building.

The project is *Green Globes* certified and earned the highest possible eco-rating of five Green Globes. This designation, reserved for select building designs, is given to project serving as national or world leaders in energy and environmental performance (Government of Canada, 2020).

Original Design

The construction was very much a Canadian effort. The limestone carvings on the panels above its exterior doors and windows show Canadian industry and commerce. The building's interior decorations include images of Canadian wildlife and nature. Despite the Great Depression, the Bank of Montreal completed the building, which reinforced the bank's image of stability and reliability. Until 1935, when the Bank of Canada was created, the Bank of Montreal was the Dominion Banker (central bank).

In 1986, the building received a classified heritage designation from the Federal Heritage Buildings Review Office. This classification is the highest heritage designation for buildings. The building was classified because of its superior architecture and its contribution to Wellington and Sparks Streets (Government of Canada, 2020).

Modern Design

The rehabilitation project was reviewed by the Federal Heritage Buildings Review Office and the National Capital Commission's Advisory Committee on Planning, Design and Realty. The rehabilitation and construction plans respected the building's heritage character and prominent location. The building's elaborate windows were repaired. Stonemasons repaired the deteriorated masonry joints that had caused the building's stone façade to crumble and its steel frame to corrode. The multi-use conference center, now modernized to 21st century standards, has kept its impressive limestone walls and elegant features. The atrium provides a transition between the modern and heritage areas, which must be distinct from each other. New materials allow the building to fit in with the surrounding buildings and the city block (Government of Canada, 2020).

Key Strategies for Sustainable Rehabilitation

The adaptive reuse project included rehabilitation of the existing building and construction of an annex, completed in 2015 with a project cost of $99.5 million. The project created 600 jobs (Government of Canada, 2020).

Important strategies to achieve sustainability include:

- Improving building envelope while protecting important heritage fabric interior and exterior,
- Integrating high efficiency components with heritage areas,
- Maintaining high degree of integrity of heritage materials,
- Working with an early mechanical system design with “sealed” envelope,
- Integrating new Main Hall radiant floor heating,
- Working with designated elements/materials,
- Augmenting building envelope,
- Rehabilitating large bronze and steel windows,
- Retaining durable, natural exterior and interior materials,
- Customizing energy efficient mechanical and electrical systems,
- Installing automated building control systems,
- Installing water conserving fixtures,
- Installing radiant floor systems,
- Using high albedo roofing materials (Building Resilience, 2020).

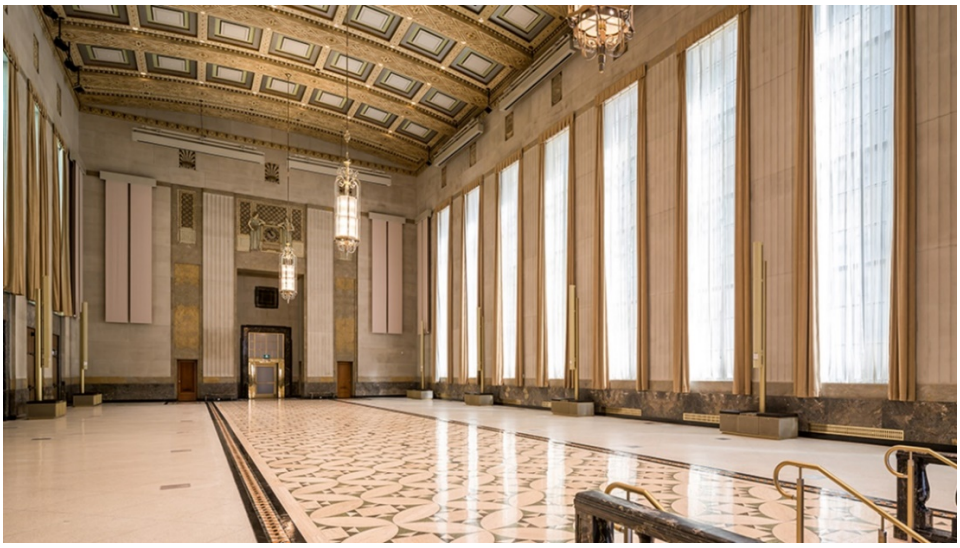
Compatibility of Uses with the Historic Context

The building is now the permanent home for large parliamentary meetings, conferences and functions (Government of Canada, 2020). The new annex provides support services including security screening, food services, storage and loading areas, washrooms, as well as meeting space with translation and broadcasting capabilities to support parliamentary functions (Public Work and Government Services Canada, 2015).

The design approach for the infill and renovation restores the former Bank of Montreal to its original glory and fills in the adjacent empty lot with a contemporary insertion (Figure 9.5). This addition is deliberately separated from the heritage building by a glass-enclosed atrium that is set back from Wellington Street to ensure that the three-dimensional character of the existing building composition is still visible both from the exterior and the interior. This separation creates a new pavilion through which visitors are processed for security reasons before they arrive in the new atrium which acts as an entry lobby to the former backing hall as well as containing the main circulation routes. The overall detailing and character of the addition is inspired by an analysis of the existing heritage bank but reinterpreted in a complimentary but contemporary manner to create an appropriate relationship with the bank as well as the surrounding context (Figure 9.6) (NORR, 2015). The new mass echoes the stratification and material of the original with a granite service block supporting a limestone clad block that contains the public rooms. The underlying beaux arts planning module of the original building is expressed in the new addition as a bronze framework holding limestone exterior panels and walnut interior panels, a contemporary

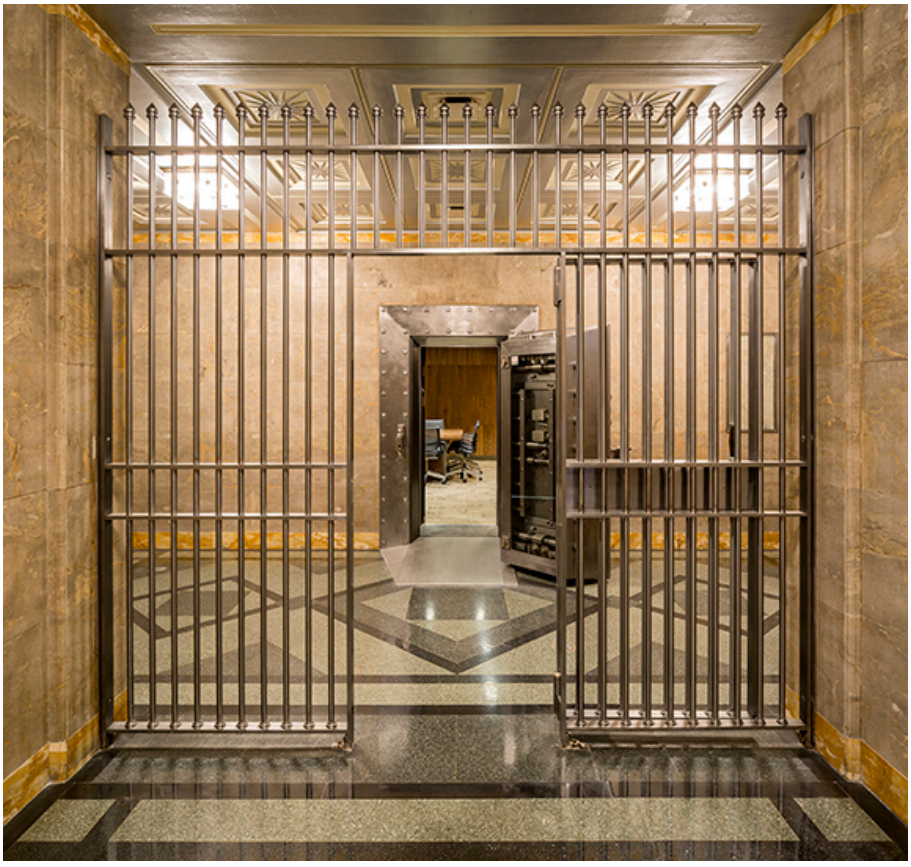
equivalent to the decorative agenda that permeates the heritage bank (World Architecture Community, 2012).

Figure 9.5: Renovated Banking Hall



Source: Canadian Interiors, 2019

Figure 9.6: Vault Turned into a Multi-Purpose Room



Source: Canadian Interiors, 2019

In addition to the main bank hall being transformed into a Ceremonial Multipurpose Room the new addition houses a second multipurpose room, break out rooms and supporting waiting rooms, security processing facilities and back of house service areas (Canadian Interiors, 2019).

Conclusion

Sir John A. Macdonald building is a significant building in terms of history and architecture, and it is an important landmark of Parliament Hill in Ottawa. The building rehabilitation and its adaptive reuse seems to be a successful example considering its modern design and function, which adapts well with the surrounding environment. Sustainability elements in the design and the sensitivity of its adaptive reuse approach to the original character and style help the successful integration into the historic landscape and the needs of the city.

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10

ADAPTIVE REUSE OF THE SALT BUILDING IN VANCOUVER

Sarah Shaw

Introduction

The Vancouver Salt Building co., located at 85 West 1st Avenue and Salt Street, in Vancouver, British Columbia, is designated as a class (B) significant heritage site within the Vancouver Heritage Register (VHR). The building, now recognized as *The Salt*, is an essential landmark in Vancouver's South East False Creek Neighbourhood (SEFC); it is well known for its rich history as a salt refinery. The Salt building, constructed in 1930, served as an essential industrial site along Vancouver's waterway. Salt, imported from San Francisco, was refined at The Salt building by The Vancouver Salt Company between 1930-1970 and later by the Arden Vancouver Salt Company Ltd. between 1970-1987. Despite 57 successful years of operation as a refinery, The Salt was not immune to changes in Vancouver's economic and transportation systems. The primary mode moved from shipping to railway. After a brief stint as a paper recycling plant, The Salt was ultimately abandoned and fell into disrepair. In 2006, the City of Vancouver designated The Salt as a heritage site and a crucial component of the SEFC public realm proposal for the 2010 Olympic Village. To date, The Salt has gone through significant revitalizations that have established it as a central landmark within SEFC and an excellent example of how adaptive reuse can bring new life to a heritage building. This paper will explore The Salt in detail, examining its significance as a heritage resource, the methods and approaches of its adaptive re-use strategy, and the key components that have helped solidify the building's past, present and future legacy.

Figure 10.1: The Vancouver Salt Company

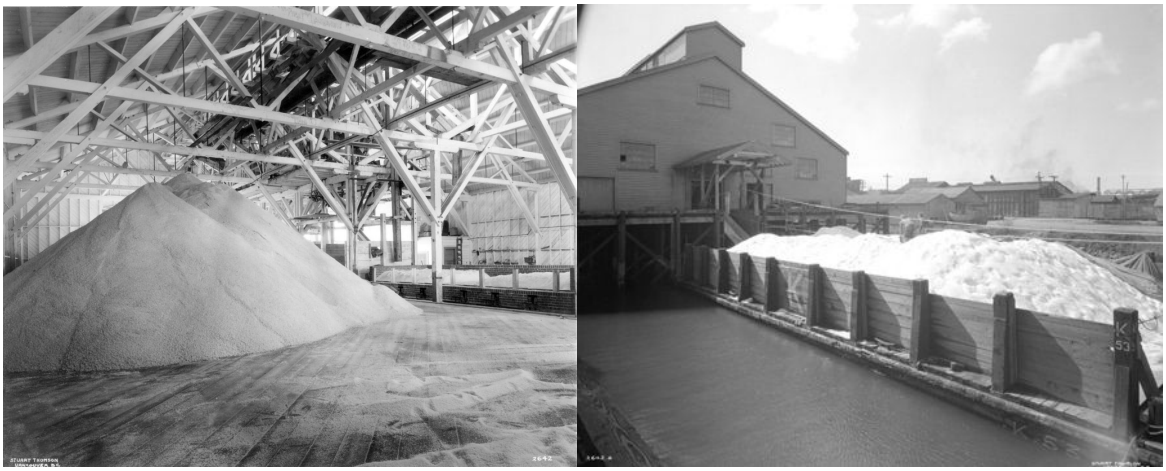
Source: Thompson Stuart, (1933)

History

Before the lands along the lower mainland's waterways where The Salt building resides would become Vancouver, the Coast Salish people occupied the area. The Coast Salish occupied the Northwest coast of North America from the Columbia River in Oregon to the Bute Inlet in British Columbia. Much like other indigenous peoples across North America, the Coast Salish peoples were heavily impacted and displaced by colonialization. In 1848 the Coast Salish peoples were divided by colonial settlers that establish an artificial boundary between the United States of America and Canada (Wonder, 2021). As large populations formed in Victoria, Vancouver, and Seattle, white colonists increasingly appropriated the Coast Salish people's land. Within a short period, Vancouver's traditional hunting and fishing grounds were decimated by the combined occupations of logging, sawmills, mining, urban sprawl, and refineries, like the Vancouver Salt Company Ltd.

Vancouver's waterways become increasingly industrialized as the demand for resources increased with the growing population within the area. In 1913, The Salt building site was utilized for gravel storage before the Vancouver Salt Company Ltd. constructed the refinery in 1930 (Figure 10.2). The refinery's prominent position on the waterway made it easily accessible for salt imports from San Francisco (Figure 10.3). Demand for salt steadily increased, and in 1954 the Vancouver Salt Co. Ltd. expanded the northern side of the building to accommodate more machinery. In 1970, the Vancouver Salt Co. Ltd was acquired by Adren Vancouver Salt Company. As major transportation transitions from shipping to railway began taking place in Vancouver, the Arden Vancouver Salt Co. gradually declined before selling the building to Belkin Paper Stock Company who briefly operated a paper recycling facility in 1987. Ultimately, the building was abandoned and would sit vacant, deteriorating for the next two decades.

Figure 10.2: Salt Piles Under the Timber Trusses & Outside



Source: Thompson Stuart, 1933 (left); The Province, n.d. (right)

In 2006, upon securing the bid for the 2010 winter Olympics, Vancouver began to evaluate its resources and officially recognized the old Vancouver salt company building as a class (B) significant heritage resource. The City made plans with Acton Ostry Architects Incorporated to reclaim and adapt the salt building for use as a lounge within the SEFC neighbourhood revitalization plan that would see the neighbourhood become the grounds for the 2010 winter

Olympics village. In 2013 the salt opened its doors as CRAFT Beer Market, Restaurant + Bar, and made the historic Salt Building a critical gathering place for the local community (Figure 10.3).

Figure 10.3: The Salt Building Facade

Source: Acton Ostry Architects, (2019)

Building Significance

The Salt maintains both historical significance and landmark significance. The building remains a prominent reminder of the once heavy industrial presence in the SEFC. The Salt's central location, relationship to the water, and its current and historic programming have established it as a landmark within the community. The building reflects Canadian industrial architecture from the period it was constructed. The Salt building maintains many architecturally significant features, notably its extended 1300 square meter open space plan, rectilinear massing, tall timber truss ceiling, ample lighting, and ventilation.

Adaptive Re-Use: Methods and Strategies

The Salt's vast open space and tall truss ceiling make it an appealing and versatile space with many potential adaptive re-uses. Unfortunately, The Salt was abandoned for many years before receiving its class (B) significant heritage resource designation. As a result, much of the original wooden structure had been severely deteriorated and would require extensive remediation (Figure 10.4). The City of Vancouver enlisted Acton Ostry Architects Incorporated to take on the project. Virtually, the entire building is restored or rehabilitated (Acton Ostry Architects, 2019).

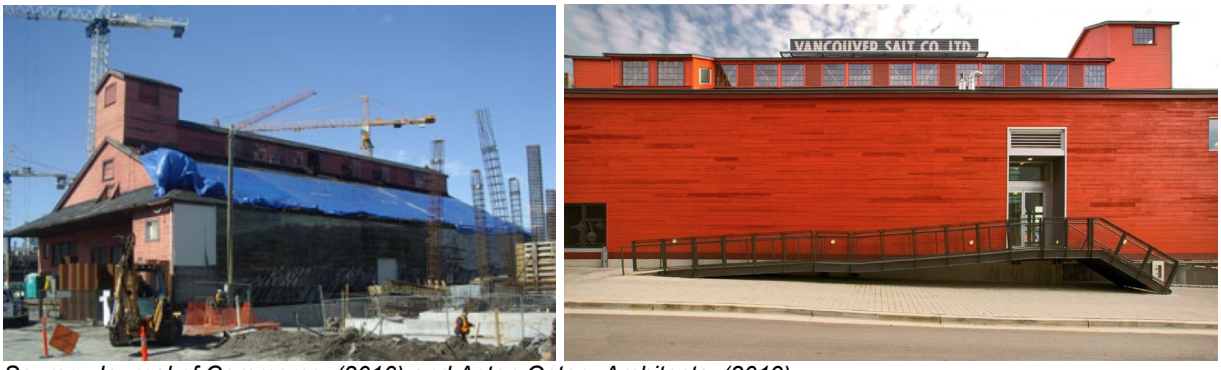
Figure 10.4: Interior Details

Source: Acton Ostery Architects, (2019)

The building's structural system included a foundation of 300 timber piles and an elaborate heavy timber truss structure capped by a linear light monitor extending the building's length (Adaptor, 2020). The lengthy restorative process included lifting the building's superstructure one meter on steel pile extensions to meet the new neighbourhood street level. Acton Ostry Architects added 300 galvanized steel piles to existing timber piles to accomplish the new height. Builders repaired the iconic timber truss system by replacing defective members and reinforcing them with new steel plate connectors and ensured the building's original character by retaining or replicating all existing fenestrations and louvres (Building Resilience, 2020). In addition, historic photos were utilized to replicate the original "Vancouver Salt Co. Ltd." signage situated atop the building.

Acton Ostry saw an immense opportunity within The Salt Building not only to preserve and adapt a heritage resource but to demonstrate how heritage resources can be successfully adapted to become hallmarks for environmental stewardship. Firstly, The Salt building employed a radical approach, re-using more the 75% of the original building material to improve the structure and create a framework for the rainscreen and thermal performance upgrades (Figure 10.5). Other building materials required for the venture were sourced locally. Approximately 98 percent of non-original material was obtained as discarded construction waste from landfills. The Salt building is assessed to save 1400 gigajoules of energy and 150 tons of carbon dioxide each year.

Figure 10.5: Revitalization of The Salt Building



Source: Journal of Commerce, (2010) and Acton Ostery Architects, (2019)

The Salt Building Legacy: Past, Present and Future

The Salt Building stands as an exemplary case of how adaptive re-uses in practice can bring new life to heritage resources. The structure perfectly embodies its historical significance with the SEFC community through strategic architectural strategies like integration, reclamation, and replication. The Salt has simultaneously set a gold standard for future heritage adaptations through environmental stewardship. The Salt is one of few heritage resources Canada-wide that has achieved Gold certification under LEED Core & Shell (Acton Ostry Architects, 2019).

The Vancouver Salt Company building has undoubtedly secured its status as a landmark of the past, present and future. Its early roots as a salt refinery have been perfectly encapsulated by the subtle changes such as increasing fenestrations and the careful attention to maintaining its original form, even going so far as to replicate the original signage. The Salt completed construction in 2009 and opened to Olympic Athletes 2010 as an “athletes lounge.” This adaptive re-use reinforced The Salt as a landmark within the SEFC community and brought the building back into the public eye.

Presently, CRAFT Beer Market, Restaurant + Bar, occupies the building, making excellent use of the space (Figure 10.6). The large footprint, rectilinear massing, high timber trussed ceilings make it versatile and highly functional for a business such as this to occupy it. The vast open space makes the building highly programmable, and its large size allows for high patronage. The structure and business attract attention from the SEFC community and the surrounding Vancouver region as well.

Figure 10.6: New Life in the Historic Place

Source: Peterson Photography, (2015)

One guarantee of the future always remains known, and that is its uncertainty. There is no way to predict what might happen. However, the success of the restoration and subsequent adaptation of The Salt Building have assuredly given the building a competitive edge. The Salt is rich with character-defining elements, landmark status, and historical ties to Vancouver’s industrial roots. The building stands proudly in the face of time and acts as a window to the past, soaked in modern contexts. The LEED-certified Salt building sets forth a model of what the adaptive re-use of

heritage resources should strive to achieve, both in its reclamation and sustainable practice. The space's versatility is what truly sets the building apart, giving it the best chance of survival. Despite the uncertainty of the future, certainty undoubtedly exists within seemingly endless possibilities that have been crafted into every aspect of The Salt Building.

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11

THE LOUIS-JOSEPH PAPINEAU NATIONAL HISTORIC SITE IN MONTREAL

Gian Marco Visconti

Introduction

Heritage buildings play a vital part in maintaining a city's local character and sustaining its urban fabric, acting as holders for cultural and community identity, and providing evidence for the lives of past peoples (Bullen & Love, 2011; Misirlisoy & Gunce, 2016). As continuously growing projects, cities exist in a state of flux between construction and reconstruction, or demolition and conservation and thus the status of heritage buildings are often in conflict (Plevoets & Van Kleempoel, 2019). This conflict can partially be traced back to the emergence of modernist architecture and planning practices in the 1930s which favoured function and rationality of urban space over the occasional chaos of historic urban structure and its associated intangible benefits (Plevoets & Van Kleempoel, 2019). The speed of industrialization since the early 20th century has, at times, positioned built heritage to be the "obstacle for modernization" (Plevoets & Van Kleempoel, 2019, p. 52).

However, in recent years, the problems associated with both approaches—absolute reliance on either a purely modernist or purely conservationist model—have made the case for hybrid methodologies, such as adaptive reuse (Plevoets & Van Kleempoel, 2019). Newly built cities often lack identity without the support of historic structure, and historical cities can struggle to accommodate the infrastructure needed for contemporary life, such as transportation and housing (Plevoets & Van Kleempoel, 2019). As a regenerative approach to maintaining historic urban structure, adaptive reuse is a theoretical framework which promotes a hybrid strategy in which heritage buildings can remain functional to everyday life without sacrificing their historic significance (Bullen & Love, 2011). Finding ways to change or expand the use of a heritage building in a way that is more relevant to the modern experience, while minimizing alterations to its appearance and structure, has also proven to be a more sustainable use of urban resources, improving environmental, social, and economic conditions when done successfully (Bullen & Love, 2011). Furthermore, if we expand our conception of what heritage means, beyond monumental and historic architecture, this approach can even be applied to more vernacular buildings, such as offices and community halls, extending the life cycles of present and future built heritage (Bullen & Love, 2011).

This study will elaborate on these broad themes by applying the theory of adaptive reuse to the Louis-Joseph Papineau National Historic Site (The Papineau House) in Montreal, Quebec. The structure of this chapter is as follows: 1/ Defining the heritage value of the case study site; 2/

Exploring design and policy interventions to sustain its future, and 3/ Reflecting on the process of adaptive reuse.

The Papineau House in Montreal

The Papineau House is located on Bonsecours Street in Vieux-Montreal, (Figure 11.1) the historic quarter of the city (Canadian Register of Historic Places, n.d.). Built in 1748, the two-storey stone house is known for having been the home of Montreal politician Louis-Joseph Papineau and his family between the years 1748 to 1779, and 1809 to 1920 (Canadian Register of Historic Places, n.d.). The house is significant for its association with Papineau during one of the heights of his career: Papineau was the leader of the Parti Canadien during a time when French-Canadian identity in Quebec was in conflict, and he was actively involved in the events that led to the Rebellions of 1837 (Canadian Register of Historic Places, n.d.; Parks Canada, n.d.a). In fact, the house was attacked by an armed mob in 1834, after Papineau drafted the 92 Resolutions, a list of grievances aimed at the colonial political system at the time (Dagenais, 2017; Parks Canada, n.d.a). It was also attacked in 1837 by members of the Doric Club, an anglophone paramilitary groups associated with the Tories (Parks Canada, n.d.a), further marking the site as an important time capsule of 19th-century Quebecois politics.

Figure 11.1: Façade of the Papineau House

Source: Fortier, n.d.

Character Defining Elements

In terms of its formal qualities, the Papineau House represents a pastiche of stylistic approaches that were popular throughout the 18th and 19th centuries, including Neoclassical and Palladian elements, such as arches with ornate trim linings (Figure 11.2) and its rectangular layout and symmetrical façade (Canadian Register of Historic Places, n.d.). The building also underwent a series of renovations at the behest of the Papineau family during the 1830s (Canadian Register of Historic Places, n.d.; Parks Canada, n.d.c), which provides a record of the Papineaus' personal design tastes. During the Papineaus' renovations of the building, they moved the main entrance from a central location to the west end of the front façade; added a brick passage to the rear courtyard; and created a new interior vestibule (Canadian Register of Historic Places, n.d.).

Figure 11.2: Courtyard View

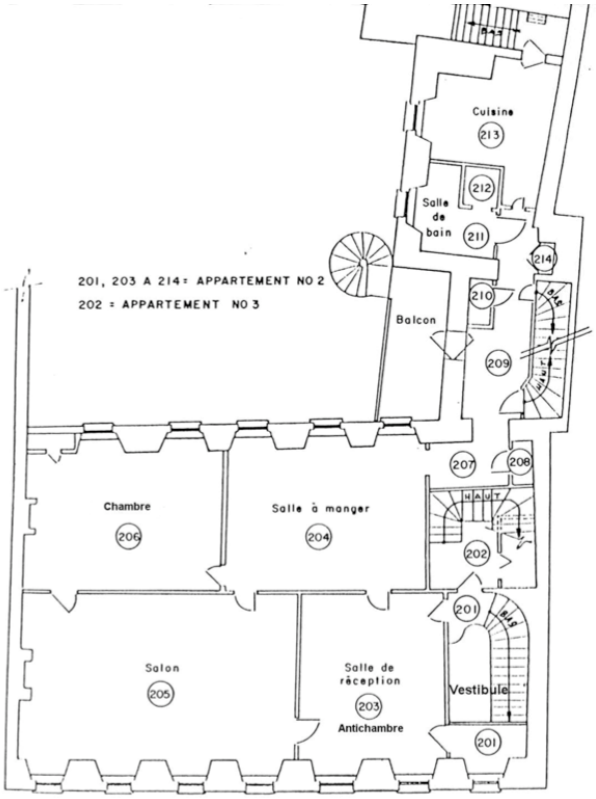
Source: Canadian Register of Historic Places. (n.d.).

According to the Canadian Register (n.d.), other character-defining elements include:

- L-shaped plan. (Figure 11.3)
- Pitched roof.
- Variety of different stonework, brick, metal, and wood construction technologies
    - Highly finished masonry
    - Rubble stone walls
    - Wood imitating stone
- Surviving interior layout and materials of the Papineau era. (Figure 11.4)
- General embeddedness with Vieux-Montreal and minimal setback from street.

It is worth noting that the house was sold to the Government of Canada in 1982 and, under the direction of Parks Canada, much of its roof and façade have been rebuilt (Canadian Register of Historic Places, n.d.; Fortier, n.d.). However, it remains closed to the public, making it an ideal choice for adaptive reuse.

Figure 11.3: Floor Plan of the Noble Floor



Source: Fortier, Y.

Opportunity

Adaptive reuse, as both a framework for conservation and redevelopment, seeks to reveal or restore the heritage value of a building, expressed through its materiality and associated histories, by allowing new and contemporary uses of the host site (Plevoets & Van Kleempoel, 2019). In this context, preservation of heritage is not possible without an accompanying modern function; however, the degree to which you intervene on a space to implement a certain use is a topic of debate: “The conservation of monuments is always facilitated by making use of them for some socially useful purpose… It is within these limits only that modifications demanded by a change of function should be envisaged” (ICOMOS, 1964, article 5).

Plevoets & Van Kleempoel (2019) point to two relevant intervention strategies that broadly fall under the mission of adaptive reuse: *aemulatio* and *facadism*. Aeumulatio describes an approach wherein “interventions are subtle, some almost invisible, drawing further on the decorum, materiality, and proportions of the original” (Plevoets & Van Kleempoel, 2019, p. 34); the end goal is to improve upon the existing construction by obfuscating the seams where old meets new. By comparison, *facadism* is the practice of completely reconstructing the interior of a building while

retaining the historical shell (Plevoets & Van Kleempoel, 2019), the goal being to exaggerate and underline where old meets new. Under the umbrella of adaptive reuse, interventions can target physical or aesthetic/conceptual attributes, with varying degrees of permanence and contrast. The intensity of the intervention should be tailored to the specific context of the host site.

Figure 11.4: Louis-Joseph Papineau's Drawing Room

Source: Fortier, n.d.

In the case of the Papineau House, a light-touch intervention would be the best choice. Gutting the building and keeping the façade would superficially retain its embeddedness with the rest of the street environment; however, a significant portion of its heritage value comes from its interior material, layout, and design. This building is an artefact that could never be replaced once altered. Therefore, a more conservationist approach based in *aemulatio*, where new additions are made to match the existing structure as much as possible, would be ideal.

The Papineau House nowadays finds itself in a highly commercial area, surrounded by restaurants, retail, and cultural institutions. Given the building's initial use as a family home, which includes kitchen quarters, it would naturally lend itself to a café space where members of the public could be invited in and experience the 19th-century hospitality of the Papineau's home and courtyard. Perhaps, only the kitchens and extended dining and seating areas would be for public service and the rest of the building could operate as a museum to further educate citizens on French-Canadian identity and the Rebellions of 1837. Although it is often a challenge to maintain the economic viability of introducing a new use to a heritage building (Yung & Chan, 2012), as well as creating continuity between modern urban conditions and historic character, the Papineau House is aided by the fact that it is already placed in a historic setting (Vieux-Montreal), which also happens to be an accessible, high commercial area. That said, the building's link to major events in Canadian history would likely require negotiation around the extent to which the public would have access.

Reflection

Adaptive reuse as a concept underlines the fact that heritage buildings need to be used if their histories and materials are to be remembered. Apart from the preservation of past events, peoples, and technologies, adaptive reuse also represents the most sustainable method of heritage conservation (Yung & Chan, 2012). By finding socially relevant uses for old buildings, through contemporary intervention, city builders, planners, architects, and policy makers can reduce demolition waste, lowering energy consumption and pollution, as well as developing costs (Aigwi et al., 2020; Yung & Chan, 2012). Furthermore, retaining historic urban structure encourages greater attachment and sense of place in our cities as residents gain a sense of continuity between old and new (Yung & Chan, 2012).

However, the efficacy of adaptive reuse often goes beyond a single building or district: there must be wider policies in place to ensure these ventures succeed. Some policies that would help ensure interventions on historic places, such as this proposal for the Papineau House, succeed include (Yung & Chan, 2012):

- Longer leases granted to building operators.
  (particularly when introducing new businesses to host site)
- Relaxation of building regulations if the structures are otherwise considered healthy and safe.
- Adaptive reuse bonuses (such as density) to developers.
- Establishment of a long-term heritage trust fund to support more non-profit initiatives in historic places.

Adaptive reuse is a flexible framework to implement a wide variety of interventions and changes to historic places, both reversible and permanent, and would thrive with more supportive public policies.

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