Chapter

Perspective Chapter: Reimaging Affordable Housing through Adaptive Reuse of Built Heritage

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Abstract

This chapter focuses on adaptive reuse of heritage for affordable housing in Canadian cities. The issue is critical in the context of efforts to create socially inclusive and affordable cities through integrated urban planning, heritage conservation and housing policies. The research has three main components. First, it provides a framework for future urban regeneration emphasising the environmental, economic and social aspects of sustainability. Second, it reviews the synergies between adaptive reuse and affordable housing provision and provides a compelling rationale for their integration. Finally, it outlines three main approaches to adaptive reuse—typological, technical and strategic—arguing for implementation through 'policy-planning-partnership' nexus. Using illustrations from successful affordable housing projects through adaptive reuse, the research demonstrates the importance of urban regeneration where strategic investment in diverse, socially cohesive affordable housing sustains the vibrancy and vitality of inner-city neighbourhoods.

Keywords: adaptive reuse, heritage conservation, sustainable urban regeneration, affordable housing, Canadian cities

1. Introduction

Cities are recognised as divers of the urban economy and centres of innovation, but experience a persistent shortage of affordable housing and growing social inequalities that affect the health and well-being of urban communities [1]. In the context of fiscal austerity and global inflation, the growing shortage of affordable housing in Canadian cities is affected by changing politics, housing market inefficiencies and concentration of urban poverty. Regardless of important historic and economic differences across Canadian cities, the recent pandemic exacerbated existing social inequalities and social exclusion [2] and demonstrated the importance of affordable housing. People need a place to call home more than ever, a place that provides shelter from economic and social stress, a place to live, work, educate the children, care for family members and maintain public safety through social distancing. Governments during recent lockdowns provided emergency shelters for the homeless, extended mortgage payments, introduced rent deferral and other

emergency measures to temporarily shelter people from immense housing difficulties and protect the public [3]. The unprecedented challenges to public health in cities have demonstrated the need to consider affordable housing as a critical part of social infrastructure that requires sustained long-term investment and support to establish a resilient ecosystem. Social equity has emerged as a key urban policy, including the need for strategic transformation of our built environments using principles of social, environmental and economic sustainability [4].

Within this context, the research addresses a vital area for urban planning that can contribute to more inclusive and equitable cities. It identifies a solution to the affordable housing crisis through adaptive reuse of heritage buildings in inner-city communities. The focus is on the experience of Canadian cities, home to over 80% of the people in Canada, where the growing shortage of affordable housing has prompted urgent action by all three levels of government. Recognising the environmental, economic and social synergies of adaptive reuse of heritage for affordable housing, the research outlines a framework for sustainable neighbourhood regeneration. Using insights from different projects, it offers a blueprint for diverse implementation at different scales—from project-based intervention to strategic neighbourhood regeneration through integrated programs and partnerships. The research methodology includes literature review of studies on affordable housing and adaptive reuse to develop a conceptual framework for sustainable heritage conservation strategies. This is complemented with a nested case study method, combining analysis of projects in Canadian cities to illustrate patterns of diversity. Given the importance of sustainability to adapt built heritage for affordable housing, the methodology also includes content analysis of planning and policy documents pertaining to the research focus, key informant interviews and visits to project sites.

The research approach draws on housing and heritage planning studies. These two streams provide opportunity to connect diverse policy perspectives to planning and urban design aspects critical for the advancement of social sustainability in the city [5, 6]. The research views built heritage as a spatial arena of adjustment through adaptive reuse where sustainability planning and design generate positive outcomes for people and historic places. Insights from successful projects highlight possible synergies and partnerships to address both the lack of affordable housing and the loss of historic and cultural heritage in Canadian cities. Heritage conservation and housing share a strong synergistic tie that underscores the importance of urban social sustainability [7, 8].

Adaptive reuse is a process that converts heritage buildings to new use, maximising the economic and social benefits of heritage structures while restoring their value to a community [9]. It provides a physical link to the past social, economic and cultural development of a place, retaining a sense of the previous form while providing opportunities for the future [10]. Through adaptive reuse of heritage planners have the opportunity to address displacement in low-income inner-city communities, contribute to larger community well-being and sense of place. The strategy proposed in this research capitalises on the untapped potential of adaptive reuse of historic buildings for non-market housing with a social purpose. These tangible assets of our cultural heritage have become physically or functionally obsolete due to rapid societal changes in technology, standards and local economies. Most obsolete historic buildings are either demolished, resulting in a loss of over 20% of Canadian heritage, or converted into museums, luxurious apartments and entertainment complexes as heritage are often perceived as a commodity [6, 11]. It is essential to reimagine these places in a creative way to increase the small share of non-market, socially

owned housing, which is less than 6% in Canada. Due to the front-end loaded nature of housing costs, the process is dependent on a consistent alignment of a range of financial and regulatory instruments, such as cost-sharing government programs that subsidise the capital-intensive conversion as well as a variety of planning incentives (e.g. inclusionary zoning, reduced land costs and taxes, alternative standards) to incentivise development and heritage conservation.

2. Reimagining affordable housing: sustainability of adaptive reuse

Concepts of sustainability have gained significant ground in city building, emphasising a more holistic approach to urban regeneration practice. Achieving sustainability in existing neighbourhoods is a long-term, complex process of conflict resolution among environmental, economic and social sustainability, implemented through the lens of planning and housing policy integration.

2.1 Environmental sustainability

As Canadian cities face the increasing global impacts of climate change, ongoing environmental degradation and higher energy costs, planners and policymakers have placed significant emphasis on addressing environmental sustainability in the built environment. The physical form and location of built heritage represent a key opportunity for cities to make progress towards environmental targets by focusing on reuse, recycling and redevelopment of existing housing. This supports circular economy strategies that minimise environmental impact by extending the use of materials and reducing the consumption and waste of materials and energy. Retrofitting and adaptively reusing existing heritage buildings for housing purposes represents a significant opportunity to promote more sustainable uses of renewable and non-renewable resources. Circular economy strategies call for a cultural shift within the construction and development industries, to view buildings as reusable resources as opposed to consumable products to achieve desired sustainability outcomes [12, 13].

Notwithstanding the progress made on the technical side to increase the sustainability and energy efficiency of existing housing through energy efficiency retrofits, tensions often arise between building preservation and conforming to current regulatory requirements. While many current building and energy codes emphasise more environmentally sustainable building practices, retroactively updating older buildings to these standards can act as a barrier to building reuse and threatens the financial viability of a project. In light of these tensions, and additional factors around density, location and building condition, studies have found that incentives and flexibility in planning and housing policy administration are needed to ensure retrofits and adaptive reuse projects in existing heritage buildings are successful and desirable [13, 14].

2.2 Economic sustainability

It comes as no surprise that in urban regeneration projects, economic sustainability and viability are critical, influencing social and environmental sustainability performance, in addition to the decision to demolish or reuse. Costs of retrofits, property taxes, financing and rate of return on investments may result in rehabilitation costs being higher than new construction. While these factors can act as economic barriers, they also pose an opportunity for regulatory bodies to incentivise and facilitate the

economic sustainability of housing regeneration and retrofits. Currently, government incentives, tax credits and housing policies often act independently as opposed to synergistic tools to support adaptive reuse and broader sustainability goals [14, 15].

A major barrier to urban regeneration and adaptive reuse is the short-term, capital-intensive investment required to achieve long-term sustainability outcomes. Collaborative efforts are required to realise these complex, multi-stakeholder projects, and these collaborations are reliant on sustained financial support to be successful [1, 16]. The availability of public funding and low-cost finance to the private industry not only helps reduce the initial financial barrier to adaptive reuse but also helps mitigate the prevalent risk of unexpected challenges and costs. Another important benefit from reusing and retrofitting individual housing is the contribution to economic, social and environmental value in the surrounding neighbourhood. Looking beyond the market value of a building is essential to maximise neighbourhood scale effects, considering externalities and spillover effects in the surrounding urban environment. In addition to job creation, improvements in housing quality and neighbourhood services, urban regeneration of heritage through its adaptive reuse is a means to achieve smart growth principles, encouraging compact development, use of existing infrastructure and higher densities [1, 4]. Developers and owners must balance the economic benefit of developing a site to its highest development potential, with the high opportunity cost forgone for building retrofits and conservation. Studies call for a broader approach to analysing return on investment that includes social and environmental qualities to adequately measure the community-scale benefits of urban regeneration and adaptive reuse [13, 15].

Through the planning and design stages of urban regeneration projects, planners have the opportunity to make a significant difference in environmental and economic outcomes for development. As a strategic process, planning for adaptive reuse is an effective tool for intensification, redevelopment and provision of affordable housing in existing neighbourhoods. In comparison to the more rigid factors of capital investment and asset condition, which define the feasibility of retrofits and adaptive reuse at the project level, regulation and policy created through planning are relatively dynamic, providing a key opportunity to enable larger-scale transformation and synergy [10, 14].

While a lack of resources to incentivise and regulate private industry and individual homeowners in Canadian cities can be a barrier to achieving sustainability, planners and municipal authorities are starting to address these issues on a larger scale, focusing on neighbourhood effects and affordable housing. Land use planning plays a critical role in the delivery of place-based outcomes such as complete, mixed-use communities that go beyond single-use zones to offer a diverse range and mix of housing options, densities and tenure [2, 16]. Zoning is a powerful land use tool, directly impacting the form, use, scale, occupancy and other aspects of our cities, including the sustainability and viability of adaptive reuse projects [17].

2.3 Social sustainability

While significant attention in practice has focused on the environmental and economic benefits of urban regeneration through adaptive reuse, social sustainability has been undermined. Yet, social sustainability is critical as the process presents a valuable way to generate better places, boost economic development and preserve built heritage but also incentivises communities to embrace more sustainable lifestyles [10]. In an increasingly privatised, neoliberal city, challenges to integrating

social sustainability principles in the planning and regeneration of built heritage in Canadian cities are significant. These places have diverse and historically defined urban forms as both people shape the places they work, live and play, and places in turn shape their inhabitants. This diversity requires a context-specific approach to urban regeneration, preservation and adaptive reuse so that it contributes to larger community well-being and sense of place. Despite many common features defining the urban form and physical characteristics of built heritage in Canadian cities that have a relatively short history, it is important to recognise the cultural and social diversity of the people living in these areas, their lifestyles and traditions that established the character, landscape and history of these urban areas. The 'one size fits all approach' is not feasible.

Quality affordable housing is a key component of social sustainability, in the form of mixed-income, and mixed tenure neighbourhoods [2, 18]. Older buildings provide a significant source of affordable housing. With a focus on social sustainability, urban regeneration projects in heritage districts and existing neighbourhoods can leverage the redevelopment processes as an opportunity to produce below-market-rate housing, creating positive impacts for many vulnerable people living in post-socialist cities. Furthermore, the degree of social sustainability of any retrofit and adaptive reuse project is highly dependent on accessibility to essential services, both at a neighbourhood and project scale. Adaptive reuse strategies that focus on the needs of underserved and vulnerable communities can support greater accessibility of the public realm, transit and social services such as education and health care, while helping counter the impacts of gentrification [14]. Preserving and enhancing the urban block structure and walkability in conjunction with active transportation systems contributes to the affordability and accessibility of housing that serves the needs of low-income families and seniors [15].

The role of participatory planning processes is a necessary component of achieving social sustainability. Within a holistic planning framework for urban regeneration through adaptive reuse, it is important to collaboratively engage with the community through transparent and collaborative processes to determine priorities in local needs, mobilise local support and leverage financial and in-kind contributions to various aspects of the implementation.

3. Heritage and affordable housing: synergy in adaptive reuse

The literature on heritage conservation, adaptive reuse, affordable housing, historic buildings conservation and revitalisation addresses the synergy between these sectors in three domains—environmental, economic and social.

3.1 Environmental synergy

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 the reuse of embodied energy and hence, avoiding demolition waste and reducing the amount of energy consumption [10]. 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. The environmental synergy between the two sectors not only conserves energy as the 'greenest building is the one already built'

The social housing is adjacent to the boardwalk in the Beaches, one of the most attractive historic neighbourhoods in downtown Toronto, and is itself a historic resource. The building contributes to the character of the place and provides an opportunity to integrate social housing tenants in a high-income area. During the reconstruction, only the original façade of the 3-story, the 27-unit property was preserved. In addition to the installation of an elevator and other accessibility features, the primary goal of the regeneration was to meet a 40% energy efficiency improvement. The total cost of the regeneration was $5,894,340, and it provided 27 apartments of mixed-income housing. Funding from energy efficiency retrofit and neighbourhood environmental programs covered project costs. Half of the original tenants were able to come back to Hubbard Boulevard and live in rent-geared-to-income units where their pay 25% of their income in rent [16].

Box 1.
42 Hubbard Boulevard, Toronto energy efficiency by design.

but also reduces the ongoing housing costs in the social housing sector through energy-efficient retrofits and improvements in the quality of technical systems and services [16]. Rehabilitation of historic buildings into affordable housing is an innovative way to recycle the expended material and energy and reduce housing costs for low-income households and social housing providers as the project featured in **Box 1** illustrates.

3.2 Economic synergy

Both affordable housing provision and historic buildings preservation are areas that require government intervention as the market on its own are unable to respond in an adequate way. Many governments provide funding or incentives to encourage affordable housing and historic building rehabilitation projects. Tax incentives, grants and ongoing rebates for retrofits have been successful at encouraging developers to pursue projects that convert obsolete historic buildings into affordable housing in the USA and many European countries [4, 5]. Such financial and fiscal support is essential in ensuring the feasibility of affordable housing projects, which usually do not have high return on investment, as well as incentives for rehabilitation projects that have high risk of cost overrun due to unforeseen technical complications [19, 20]. 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 organisations and affluent individuals who believe in both causes. This synergy allows for a more diverse funding envelope, where developers can maximise the potential of unique heritage assets, and infuse a mix of uses—retail, arts, culture—to complement housing and create attractive places. Local developers can obtain available funding for both sectors to increase the economic viability of these projects (see **Box 2**).

Formerly home to Imperial Oil's Saskatchewan headquarters and a national bank, the Derrick building was converted into Renaissance Retirement Residence, a 164-unit senior housing in downtown Regina. 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 [21].

Box 2.
Renaissance retirement residence in Regina.

In Canada, the National Housing Co-investment fund pledged about $16 billion in funding and low-interest loans for the creation of 60,000 affordable housing units while historic building preservation projects could seek funding from cost-sharing program at the provincial level. Provinces provide funding to conservation projects for designated historic buildings [6]. Despite a more limited scope compared to other countries in Europe and the US, the existing funding in Canada offers a favourable environment for such synergistic projects.

3.3 Social synergy

Many obsolete historic buildings are found in or in close proximity to city centres [6]. In many Canadian cities, the majority of historic buildings are located in city centres: approximately 90% in Toronto, 82% in Calgary and 45% in Vancouver. Downtown revitalisation efforts have resulted in the concentration of jobs, retail and good access to public transit services. Similarly, public services that provide support to low-income and homeless people such as food banks, housing help centres and social services providers are heavily concentrated in downtowns of major Canadian cities.

Inner-city neighbourhoods have been plagued by non-descript high-rise towers and unwelcoming 'projects' that were a manifestation of the misguided urban renewal initiative [2]. The most successful neighbourhood revitalisation efforts were attributed to the retention and reinvestment in the historic fabric of the neighbourhood, retaining its

legible urban blocks, walkability and gentle density. The recognition of the character and quality of historic buildings and their adaptive reuse further contributed to the legacy of the place and its uniqueness. The scale and unique architecture of historic buildings make them ideal for conversion to mixed-income housing with a low-income component [14, 18]. Leveraging this synergy provides an effective method to address one of the housing market inefficiencies—the inability to effectively allocate land to various actors based on needs rather than financial capacity. As such, converting historic buildings into affordable housing through adaptive reuse provides access for low-income groups to cultural heritage resources and high-quality environments (see **Box 3**).

Coxwell Stables in Toronto is an example of a small-scale adaptive reuse project. Originally built in 1919 for the horses that pulled the Toronto Public Works Department vehicles, the site was designated by the Toronto Historical Board in 1981, and was bought by the City of Toronto's non-profit housing corporation (Leslieville Historical Society, 2020). The adaptive reuse of Coxwell Stables provided 11 affordable housing units while retaining the historic character of the building. The cost per unit was less than $100,000 and the project received financial support from the provincial affordable housing programs and local government grants for historic places [22].*Coxwell Stables Redevelopment*

Box 3.
Coxwell stables in Toronto.

Existing neighbourhoods with obsolete historic buildings often have lower property values. Adaptive reuse is contributing to the effective redevelopment of existing assets but can provide affordable housing opportunities to target groups that might not be able to find a suitable alternative in the mainstream housing market. Single-person households and people with special needs might benefit from the locational advantages of downtown services, transit and jobs (see **Box 4**). The rehabilitation of the underutilised buildings will help revitalise the immediate neighbourhood and

The Heritage block at 18 West Hastings Street in Vancouver is a six-storey brick Edwardian building built in 1909. Renovated by Reliance Properties and ITC Construction Group it provides 30 suites in Vancouver's Downtown Eastside with the concept of contemporary "micro-loft". lt has the smallest self-contained rental apartments of approximately 270 square feet for single people. The adaptive reuse project deploys unique design strategies to retain character-defining elements and the integrity of the built structure, while providing flexible layouts and floor plans for the affordable housing units [24].

Box 4.
Micro lofts in downtown Vancouver.

generally receives less opposition from the local community as any use is better than abandonment. This is especially helpful for affordable housing projects, which usually receive high level of pushback from the local residents [23].

4. Adaptive reuse of heritage for affordable housing: planning-policy-partnership nexus

Understanding the multiple perspectives of adaptive reuse of heritage for affordable housing requires comprehensive planning and coordination of design intervention. It makes the case for an integration of different theoretical approaches to adaptive reuse and heritage conservation—typological, technical and strategic [27]. These dimensions are presented in **Figure 1**.

4.1 Approaches to adaptive reuse

In the Canadian context, cultural heritage formally becomes a historic place when an authority recognises its "heritage value and character-defining elements" ([26], p. viii). An understanding of values is essential for successful heritage conservation and forms the basis for adaptive reuse projects [6, 27]. The typological approach focuses on building use and function as a primary determinant for adaptive reuse, categorising the barriers and success factors towards reuse by each building typology's

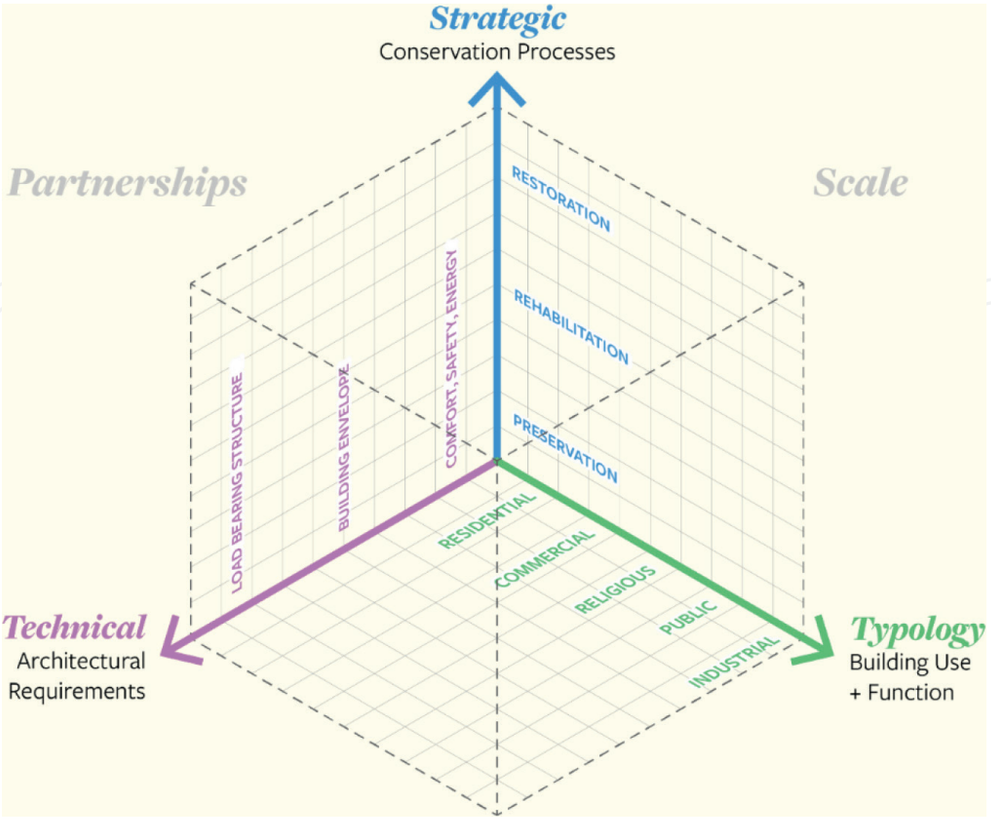

Figure 1.
Synergy of adaptive reuse approaches.

historical or contemporary use. High-level classification of building typologies includes industrial, religious, (semi-)public, residential, military and commercial uses [25, 27]. In practice, the typological approach to adaptive reuse is regulated at the municipal level through zoning and land use. These regulations often control other aspects of design in addition to use, including site coverage, floor area ratios, height limits, building envelopes, relationships to adjacent buildings, and parking requirements, all of which influence the feasibility and success of adaptive reuse projects ([6], p. 122). Ensuring flexibility in zoning and application of relevant building and fire codes with adaptive reuse projects can serve the nuance of typology-specific requirements and support adaptive reuse from historic functions to contemporary uses. In affordable housing projects, the building use is often mixed, combining a range of opportunities to meet contemporary needs beyond residential.

The technical approach focuses primarily on the technical aspects required to reuse a building, providing guidance and discussion on upgrades to the load-bearing structure, the building envelope, and the comfort, safety and energy efficiency of the adaptive reuse project [27]. Developed through a primarily architectural and engineering lens, the technical approach has manifested itself in the creation of guidebooks and technical expertise on the physical 'how' of adapting a building to allow new functions. In Canada, adaptive reuse is underpinned by the impacts of conservation efforts on a structure's 'character-defining elements'. While not a technical document, the *Standards & Guidelines* provide a philosophical approach and framework that reinforces technical decisions that impact built cultural heritage [26].

The strategic approach focuses on the analysis of the tangible processes and strategies required for the architectural conversion of heritage buildings. These strategies are

physical interventions to convert the building to new uses, providing the guiding design concept. The original building is considered critical to the adaptive reuse design strategy [25, 28]. In the Canadian context, the overarching strategy for protecting historic places is conservation, defined as all actions or processes that are aimed at safeguarding the character-defining elements of a historic place to retain its heritage value and extend its physical life. The three strategies for heritage conservation are preservation, rehabilitation and restoration, or any combination of these actions or processes.

4.2 Partnerships and scale of adaptive reuse

The adaptive reuse of heritage for affordable housing due to its social complexity requires a creative approach, which aims to initiate a plan of action that creates synergies between the typological, technical and strategic approaches with the program requirements that provide the fiscal, financial and planning/regulatory support for social housing. Following an initial phase of investigating the existing building and understanding the project's design philosophy, the decision of whether to preserve, restore and rehabilitate is made [25, 28]. In addition to the synergies of the typological, technical and strategic approaches to heritage reuse, the scale of planning and development, and the formation of partnerships are key determinants to a holistic adaptive reuse approach in Canada (**Figure 1**).

With limited funding, resources and regulatory tools available at the federal level in Canada, "working in collaboration and in partnership is essential to ensure cultural resources at heritage places are safeguarded" ([28], p. 21). Partnerships are critical to incentivise private development, balancing the cultural and social sustainability goals with the profit-oriented motivations of the private sector. Partnerships that integrate the community are an important tool to bridge the gap between limited public financial resources, and the need to revitalise urban areas. These partnerships not only ensure successful project outcomes but create the foundations of knowledge networks to facilitate future small- and large-scale projects. Moving towards a system of 'less policy – more partnerships' can help alleviate risk and create opportunities where the private sector would otherwise choose more economical alternatives [1, 2].

The scale at which adaptive reuse projects occur is not limited to individual buildings but can vary greatly across scales from facades, to buildings, to groups of buildings and heritage districts. A multi-scalar approach to adaptive reuse considers the implications and challenges present at various levels, understands the inherent complexity of adaptive reuse projects and generates robust solutions to address this

> Once the workspace for 12,000 workers of the Canadian Pacific Railway, the 50-hectare site was abandoned in 1992, leaving thousands of local residents without jobs. The site's original redevelopment into a shopping mall met with opposition from the local community that demanded the preservation of the industrial heritage and the inclusion of social housing in the redevelopment project. The first phase saw Angus Shops transformed into a mixed-income housing complex of 2587 units with 40% social housing targeted at low to moderate-income seniors and families. Subsequent phases added retail and job opportunities as well as residential units with 20% social housing for local residents. Overall, the regeneration was successful at lowering the unemployment rate of the neighbourhood and infusing a large number of social housing—cooperative, affordable rental and subsidised ownership. However, the neighbourhood regeneration also brought in an influx of new condominiums and businesses that triggered gentrification [30].

Box 5.
Adaptive reuse of heritage for affordable housing, Angus shops redevelopment in Montreal.

complexity at the building and urban scales. At the same time, the move towards neighbourhood-based regeneration requires the scaling up of approaches usually implemented in individual buildings to generate sustainability outcomes for people and historic places as the example in Montreal indicates (see **Box 5**).

4.3 Planning-policy-partnership nexus

An important strategy for change that might be successful in the sustainable regeneration of inner-city neighbourhoods in Canadian cities builds on the planning-policy-partnership nexus [26, 27]. Nexus thinking transcends traditional policy and decision-making silos and develops approaches that build synergies across these sectors. Partnerships for affordable housing in cities and neighbourhood revitalisation are indeed very diverse multi-sectoral collaborations that leverage real estate market pressures to promote affordability goals and social mix. Cities often take the lead in managing the planning-design-policy nexus as neighbourhood rebuilding takes decades and shifting the responsibility to private developers might not work, particularly in the context of gentrification and displacement of lower-income residents. Partnerships need robust and sustained financial support, alignment of planning policies and institutional commitment to increase the supply of affordable rental housing. Such complexity by design makes statements on 'what works' and 'what does not' challenging and illustrates the interdependent nature of resilience at the nexus, raising the fundamental questions of how policy might enable systemic resilience [1]. Each city will need to develop its own successful model, based on the resilience of the planning-design-policy nexus for affordable housing to respond to growing affordability pressures while emphasising diversity and social mix [3, 28].

The experience of major Canadian cities in the context of urban regeneration illustrates opportunities for synergies of different policy frameworks guiding heritage conservation and provision of affordable housing. This research has demonstrated the potential of integrated approaches to adaptive reuse at the project/building scale as well as more strategic area-based action planning to generate a wider range of positive outcomes associated with such projects. Ultimately, the efficiency and effectiveness of heritage conservation through adaptive reuse and alignment of neighbourhood sustainability goals is enhanced as the whole is greater than the sum of its parts. Affordable housing partnership models in Canadian cities offer one possible solution to a growing affordability crisis adding

adaptive reuse of heritage to their planning-policy-design strategy toolbox repertoire. Such synergy allows the scaling up of limited project/building-based experiences to a more strategic level, emphasising the importance of socially diverse communities with jobs, opportunities and services that have a unique historic identity and sense of place [29].

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