Abandoned Cultural Heritage and Identity:

The Rehabilitation of the Prince of Wales Bridge

by

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Abandoned Cultural Heritage and Identity

The Rehabilitation of the Prince of Wales Bridge
Abandonment is a complicated issue. There are spaces inside the city which are ignored by the society and collectively marginalized. This fate can befall many buildings, from the very old to the newly built to the unfinished. Abandoned heritage is a conflicted term. How can heritage, which implies having a recognized value in it, be abandoned? In this thesis, this term attempts to represent the potential these historic places have. Indeed there are many sites that have stood the test of time but that are left out of the collective memory. Often, after these places are forgotten and abandoned, they are claimed by people who have interest in them and they are developed in a top-down interpretation through which their flexibility as places full of opportunity is lost. They are fixed into an idea, their history is translated according to privately developed requirements. However, abandoned heritage sites are important for collective identity. They are spaces which represent a clean slate for creative fulfillment of current needs, while at the same time provide a link of continuity with the past. Looked from this point of view this thesis asks: Could these places be redeveloped in a way that will provoke public interest and provide a platform for public opinion? Could they become a bottom-up structure of interpretation in which the redefinition happens in a gradual way that is rooted in disclosing identities and opinions? How can these anti-sites surface again on the city map? Is there a way they can become a full participant in the urban life and to be welcomed back into the personal and collective memory of the city dwellers? Could they be seen instead in a positive light as an opportunity to create social capital and sense of place?

The site chosen for the thesis is the Prince of Wales Bridge in Ottawa, built in 1881. The bridge has been abandoned for a couple of years now even though it serves such an important connection between Ottawa and Gatineau. The aim would be to look for ways to bring life to the bridge while at the same time preserving its significance and character, providing a minimal approach intervention that is adaptable and removable, creating interest in the structure which will ultimately help towards its preservation and its rehabilitation.
Words of thanks

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Introduction
In the Introduction, the nature of abandonment and heritage is explored and the design proposal is introduced.

In Part 1, the link between heritage, sense of place and identity is explored, and through those the nature of city-making and public spaces in terms of historic sites.

In Part 2, a comparison is made between two contemporary Canadian examples- the Toronto Evergreen Brickworks and the proposed Zibi development in Ottawa.

Part 4 is dedicated to presenting all the compiled information related to the site of the design proposal. This includes the location, setting, the history of the site and the city, the present state and uses, and future developments in the area.

Part 5 explains the design proposal. Principles and guidelines of the proposal are developed based on a completed Nara grid, condition assessment and a statement of significance. The idea of temporary urbanism is explored in more detail.
Abandonment

Abandonment happens everywhere—in many cities around the world, places are empty and declining. There are many reasons why a building may find itself to be without any users or owners. Abandonment has its roots in a number of issues, mainly a combination of social, economic or environmental factors. Some famous large scale examples include New Orleans after hurricane Katrina and Detroit after deindustrialization of the automobile manufacturing, both being heavily affected by social issues as well.

On the scale of individual properties, abandonment is an issue of maintenance as well, especially when it comes to historic buildings that require more constant and specialized repair. David Leatherbarrow explains that the rule of thumb of abandonment is such: “if repairs will cost half of the value of the building, don’t bother. This is the point at which owners either demolish the place (...) or they let it stand empty.”

In the case of industrial buildings, abandonment is related to the outdated production methods that used to happen inside them. Across the US, industrial decline and suburban development have led to the ‘hollowing-out’ of the inner-city areas, leaving large amount of vacant spaces. With the introduction of new technology and processes, the old ones become ineffective or uneconomic. Electronics have replaced mechanization, oil and nuclear power have replaced coal and wood, jobs moved far from the hands of owners, resulting in deterioration of once vibrant production areas. As opposed to the age of handcraft that built with organic materials, industry built in steel and concrete, and it often was large structures, that have been left to the following generations as a memory of the
places that are an eyesore and even as
dangerous places that are falling apart
and providing a setting for unwanted
activity. However, they are also places of
great potential. Being abandoned
not only from people but also being ab-
sent in the collective memory, they are
in fact places full of surprises. They
effectively belong to no one and at the
same time to everyone. Often located
in central areas, they could provide a
creative fulfillment of current neigh-
borhood needs. They provide a shell, a
setting, and in the case of historic struc-
tures- a connection with the past, and
their potential for creative place-mak-
ing should be made known to everyone.

Recently a renewed interest in
the industrial aesthetic has emerged.
They are a cultural heritage sites that
are interesting and successful projects
are done to revitalize them. The High-
line, the Brickworks in Toronto, the
Distillery District and others are just
some examples of the more famous
rehabilitation projects. Today, it is no
longer the production inside them that
draws people to them, but the industrial
buildings themselves.

Abandoned places often bring
up negative connotations in the mind
of the city dweller. They can be seen as
Design Proposal

Recent heritage perspectives parallel trends in urbanism that deal with temporality and accept change as an issue to manage, not rejecting it as a negative. By linking these two concepts: “abandoned heritage” and “temporary urbanism”, an attempt is made to look at the bigger picture of how to revitalize abandoned spaces. The reason for focusing on abandoned sites, is that they are in fact places of great opportunity, where there is a great potential to be explored and for meaningful architectural interventions to happen. “Temporary urbanism” relies on the communities around it to sustain it and to participate in it, in fact a community involvement is what makes it relevant and what makes it a “bottom-up” structure. Abandoned heritage, on the other hand is exactly the opposite - it is lacking a community. The thesis will attempt to create interest in the public by building on cultural heritage’s inherent capacity for social capital and identity creation through an enhanced sense of space. The architectural intervention will aim to bring people to the site and to create a public that will in a way adopt the abandoned place and create a sense of ownership or connection to it. By using temporary architectural interventions, the intention is to bring the heritage site into the life of the city again and to create interest around it, so that there will be a more public decision about its preservation and its rehabilitation.

Figure 1: Bridge Design Proposal Collage
Figure 2.3: Bridge Design Proposal Collage
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Introduction

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Part 1: Cultural Heritage and Identity
The Council of Europe in the Faro Convention of 2005 defines cultural heritage as “a group of resources inherited from the past which people identify, independently of ownership, as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions. It includes all aspects of the environment resulting from the interaction between people and places through time.” ¹ The treaty also states that cultural heritage has the potential to be used as a resource for ‘sustainable development and quality of life in a constantly evolving society’” and that “everyone, alone or collectively, has the right to benefit from the cultural heritage and to contribute towards its enrichment.” ² Cultural heritage is a key ingredient in the improvement of quality of life and it is beneficial not just for small groups of privileged individuals but the for the whole of society.
has been emphasized from the 1990s onwards, as opposed to the economic dimension which has been the main focus of studies in the 1980s. Nevertheless, the fundamental theme of the report is sustainable development, and how the long term impacts of heritage can be determined based on qualitative and quantitative studies of economic, social, cultural and environmental aspects.

The CHCfE report states that there are many beneficial social aspects of the existence of cultural heritage. It outlines how there are long term and qualitative aspects of cultural heritage, which cannot be measured in economic terms that are equally important as economic reasons and provide a ground for their conservation. One of these is the connection between the historic built environment and social capital. That connection occurs through what architects refer to as genius loci, or sense of place.

An enhanced sense of place, through the presence of historic buildings, will provide a context in which people can create meaningful and strong interactions. An increased social capital on the other hand is a desirable condition in a city – it has beneficial outcomes by creating strengthened communities.
Figure 4: Holistic approach to sustainable heritage development
Thus cultural heritage is an important factor in city-making by building social capital - it acts as a community hub and provides opportunities for bonding and bridging between all kinds of groups of people - new and old time residents, young and old, different ethnic and religious groups. It provides a platform where people can interact and have a meaningful experience together as a group. This is one of the 10 key findings of the CHCfE report - cultural heritage builds social capital and also social cohesion in communities across Europe; as well it provides a framework for participation and engagement, and fosters integration. This is the potential that abandoned cultural heritage sites have - from empty and uninhabited they can become a vital city-making places that can bring social cohesion and neighborhood improvement through increased strengthened connections and an enhanced sense of place.

How does cultural heritage create social capital though? One of the first studies to show a solid connection between historic environment and social capital is done by a research team working for English Heritage. They have shown a more robust link between the two by conducting large scale surveying and modelling of their results. They set out to prove that people in more historic built environments have a stronger sense of place (which they define as identification with an area) and that people in more historic built environment have higher levels of social capital. The research was done on a large group of both teenagers and adults, through phone interviews and questionnaires and while the results were weaker for teenagers they were still able to show a positive link between the above mentioned concepts. Their final results showed that sense of place was directly influenced by historic built environment, while social capital was indirectly influenced through sense of place. They concluded that the relationship between historic built environment and sense of place is not only about living in a more historic area but it is also as much about people being interested in their built environment.

The concept of social capital is directly connected to the concept of resilience, the quality of being able to adapt to external and internal shocks using local resources. Resilient cities is mostly a term relating to flexibility, inclusivity, integration, reflection, resourcefulness and redundancy. In fact part of UNESCO’s Sustainable
Goals initiative is to make cities inclusive and resilient and to strengthen efforts to protect and safeguard the world’s cultural and natural heritage. The term can be applied as well to large and small communities that try to tackle the issue of abandonment where all of these terms are of great importance. In fact resilience in the face of abandonment is how it should be tackled, where instead of permanent solutions more fluid and flexible short term inclusive activities build social capital which according to Lazzaretti is a contributor to economic stability. She says that culture is no longer a “flywheel for economic development” but instead it is recognized in industrialized and developing countries as a driver of economic development. A new phase characterized by the “societal function of cultural heritage” is recognized, where the primacy of social aspects over economic aspects in cultural policies is explicitly being acknowledged. “Arts and culture have the power to connect people and become a strategic tool for safeguarding of the identity and authenticity of places and local communities” The impact of cultural heritage is not just economic but it extends to social and cultural aspects as well. Research done by Bradley et al, among others, has shown that there is a connection between sense of place, social capital and historic built environment. Moreover, resilience in the face of abandonment could be a great opportunity for the creation of social capital and its benefits would be driving economic development, strengthening communities and connecting people.
Heritage Interpretation

As historic artifacts age more and more, their original use and function is lost to the contemporary viewer. Heritage interpretation, telling the story in a compelling and educational way, is needed when the meaning behind the object is completely lost. Heritage interpretation is the tour guide, the museum exhibition, the various media in use and it is often related to the tourism industry. While it is needed, the interpretation is usually a one-way direction of information sharing, the range of the information and the way it is transmitted carefully selected by an expert source which is meant to be accepted by the public as authoritative. Silberman in his essay “Heritage interpretation as a public discourse” makes an interesting suggestion: instead of a one way monologue, interpretation can have a wider societal function as a “deeper reflection on the rights and proper role of the non-expert public in shaping an ever evolving vision of the past.” Ashworth makes the case that heritage is a social construct- it is defined by society which is choosing what to preserve and what to discard based on the demands of the present. The history of the heritage site will only be understood through the lens of today, which is constantly changing, and in the same way interpretation of the heritage is a dynamic concept.

The alternative suggested is that of “public interpretation”: an activity where all understandings are encouraged to be openly expressed, each enriching all the others with unexpected insights about the significance and value of heritage. The place of heritage interpretation is close to other important social debates, because if cultural heritage is indeed “unique and irreplaceable property” of great importance ‘for all the peoples of the world’ then it should be the subject of informed debate and reflection in the public sphere.
paradigm of interpretation as a shared and ongoing public activity, many voices could be heard. The informed and inclusive collaboration of the public will ensure that there is a connection of all members of a community to both the past and the future, and that the expression of the evolving collective identity will be facilitated by professionals and non-professionals alike. In these terms, it becomes a part of civic engagement. It becomes the responsibility of everyone to be involved in the heritage discourse.

Applied to the revitalization of abandoned sites, this type of heritage interpretation represents a more plural approach that takes into account the opinions and understandings of whoever wants to share them. Instead of creating a fixed interpretation of the site developed by few people, this new paradigm gives way for a more comprehensive and gradual reintroduction of the abandoned site into the life of the city.
for the structuring of an identity, our future self-definitions are rooted in our experiences of our past.

Memory is important in self-identification, not only at the scale of the individual but as a group of people as well. Collective groups, and even nations, share experiences of the physical world resulting in memories that “constitute their collective identities and sense of togetherness.” Memories are thought of as internal mental processes that happen in the private world of an individual, but at the same time they are externalized in the objects around us. The significance of familiar or peculiar objects, that have more of a social meaning rather than strictly utilitarian one, in the process of remembering is why people like to collect them, because they not only reinforce the memories but also reinforce the sense of self. In this sense, it is quite accurate that the poet Wallace Stevens says “I am what is around me” and, even more appropriately in the built world, Noel Arnaud states “I am the space, where I am.” From here it is easy to make the connection to the city spaces and in the case of this thesis, heritage sites, which are the physical objects that externalize the memories made by the city dwellers. Heritage sites are important because as

Cultural Heritage and Identity

MEMORY, CONTINUITY and THE COMMON WORLD:

Pallasmaa in his essay “Space, Place, Memory and Imagination” says: “One who cannot remember can hardly imagine because memory is the soil of imagination. Memory is also the ground of self-identity, we are what we remember”. By taking this position, the relevance of memory applies not only to the past but to the future as well. The way the past is perceived gives the framework for how to look forward to the future and it also gives an important base
they are the physical representations of memory; they are a “factor in constructing a collective identity.” 25 As Arendt says, that is where people retrieve their sameness and identity “by being related to the same chair and the same table.” 26

The collective understanding of the past brings about an abstracted memory of history, which is overlaid with personal recollection. As Jorge Otelo-Pairos recalls in “Mnemonic Value and Historic Preservation”, his visit to the Lincoln Memorial in Washington, D.C. as a child was of remembrance to him not because of the interesting history interpretation, but rather because of his uncle’s bee striped tank top which stood out against the whiteness of the marble building. 27 Even more so at sites such as the Landschaftspark Duisburg-Nord which are adaptively re-used the visitor experiences the site in a way which is dramatically different than back when the industrial site was used for the purpose it was created- a steel production facility and a workplace. 28 Today even if the visitor has an awareness of the original function of the structures, his experience and memory creation is not the same. To the modern visitor, the site is a park, the meaning of it is accrued in a far different way than it did for a worker who has put so much personal effort, time and engagement. 29 Surely, the intensity and the kind of experience is not the same. As the structures drift further into the
past, the visitor today will no doubt require an extra layer of interpretation of the history, and even then the memory reconstruction will never be the same as it would have been of a person going to work everyday from morning to evening, or the reality of “the lives lost and bodies maimed, and the mountains of pollutants (...) injected into the soil and the atmosphere.” 30 If this is the case with all historic structures that have changed their original function, then that brings up a question of the realistic memory identification related to any historic place. When the actual reality of the history will never be truly revealed to following generations, then how is it that one can claim to align him or herself with a group of people in the past when they haven’t shared the same memories? The answer to this important question of self-identification may lie in a feeling of continuity of history, and while they haven’t directly shared the same experiences of the same site in the same moment of time, there is still a sense of a collective identity and that identity is not only continued but redefined with every generation by experiencing the built environment. Even when the place is abandoned it hasn’t broken apart from this continuity, as it still maintains a connection to the past.

According to Ashworth who is interpreting Lowenthal’s “The past is a foreign country”, heritage sites’ sense of antiquity conveys the status of antiquity...
tecedence and also underpins the idea of continuity. 33 If there was something that existed before that means that society has progressed, the now is product of that before. Secondly, Ashworth states that urban artifacts acquire cultural status because “they fulfil the need to connect the present to the past in an unbroken trajectory”. 34 The past provides a sequence, allowing us to “locate our lives in linear narratives that connect past, present and future.” 35 While it gives a sense of familiarity, enrichment and sometime escape, it is more importantly, a source of validation and legitimation. 36

IDENTITY and BUILT WORLD:

Identity could be a broad research topic, however in the theme of this thesis, identity is limited to its collective, social aspect and its relation to the built world. More specifically the way we construct the built world, the shared social space defines our collec-
tive identity and vice versa—our identity further on shapes our built world, moving in a never-ending circle. According to Arendt, "whatever touches or enters into a sustained relationship with human life immediately assumes the character of a condition of human existence." 37 The way the common built world is shaped is crucial to the way the inhabitants of a city identify themselves.

In such a definition, identity cannot be a fixed set of characteristics specific to a group of people, but it is also a social construct that is also used to relate to other people and other groups. 38 Thus identity is very connected to the sense of the other. It is relational, as it needs another person or group to determine similarity or distinctness, identifying with or against someone. 39 This is illuminated by the pluralities existing in a city and especially a multicultural city of the contemporary world, each culture identifying with certain objects or traditions. Culture, being embodied in the material and the social world, is one of the principal means by which "identities are constructed, sustained and transformed." 40 The social and common places in the city are the areas where the transformation of identity happens because these are the places where many cultures, identities and opinions come together. Thus the way we experience these shared places is the way our future identities as a group of people will be defined. This brings up an important question that is fundamental to the development of this thesis: How can we take accountability of the circle of identity so that the identities we construct are done so by as public and as plural means as possible?

RE-IDENTIFICATION:

The common world that we share with other people is important as the place where different pluralities come together. What contrasts that is an abandoned place which is completely empty of inhabitants that will project their identity towards it. That is why this thesis argues that the revitalizing of abandoned places plays an important role in identity formation. These places are at one moment completely empty, dead not only in their absence of inhabitation but also in their absence in collective memory, and in the next they are made alive again, a full participant in the city life once more. That is why when put into this larger context of people and time, the way these places are reintroduced into the public understanding
is crucial. What kind of identity shaping is happening when interpreting abandoned heritage? Is accepting an already defined idea predetermined by economic forces a legitimate source of identity creation? Instead can heritage rehabilitation be a public discourse? Could it be used to improve neighborhoods, create social capital and strengthen communities? While until now the perspective of heritage studies was focused on the object, recently the focus is instead on humans and their environment. The ability of heritage to relate to the social and cultural realms, to the performances and practices that help people to create and protect a sense of identity, is just as important to be realized.  

To illustrate these ideas more clearly, a comparison is made between two case studies which have very different approaches. What they have similar between them is that they are both industrial remains set along a beautiful landscape, which constitutes the main attraction to these places. They achieve the rehabilitation through a sustainable aspect of the new program and through the introduction of a population. The Zibi development on the Chaudiere Islands in Ottawa is an example of top-to-bottom approach that creates a marketable identity that could be purchased. The Evergreen Brick Works contrasts that by allowing the site to slowly and gradually be changed through a more bottom-up approach of self-disclosure and redefinition by community participation through time.

![Diagram of social capital, identity creation, and public interpretation]

*Figure 11: Identity Creation*
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Part 2:
Case Studies
Case Study 1: Zibi

The examples in the following pages will provide an illustration how some revitalization of abandoned places applies to the mentioned concepts in the previous chapter of cultural heritage and social capital, heritage interpretation and collective identity. Pendelburry in his paper “Cultural Heritage a Force for Social Inclusion” makes a distinction between two ways through which cultural built heritage can contribute to social inclusion, which he defines as the opposite of social exclusion (improving neighborhoods, cultural problems, tackling issues of discrimination). ¹ The first one is by focusing on the cultural built heritage as a historic place and the second one is cultural built heritage used as an opportunity space where regeneration might happen. ² The latter is the case of the Zibi proposal in Ottawa’s Chaudiere Falls. The Zibi project represents a top-to-bottom approach of revitalization and heritage interpretation by creating a marketable product, “a world-class sustainable community and redevelopment.” ³ It is one of a kind place in Ottawa where one can “live an exceptionally unique and balanced lifestyle combining the best of urbanity and healthy living principles with a vibrant waterfront.” ⁴ Part of the project’s intention is to build new zero-waste sustainable residential, commercial and office building, along with the rehabilitation and adaptive reuse of the derelict industrial heritage.

The Chaudiere Falls and Chaudiere Islands, where the proposal is located, has a very long and important history for Ottawa and Canada. The Algonquin Ashinabe tribes are the first ones to inhabit the area, dating back for 10,000 years. ⁵ The falls were important for their religion as a place to worship and have ceremonies. ⁶ Thousands of years later, in the early 1800s, the area was also the first European settlement
in Ottawa and surroundings, started by Philemon Wright, who founded the city of Gatineau. A few decades later with the construction of the Rideau Canal, the town grew more and gathered French and English speaking workers at the lumber and paper mills. What is on the Chaudiere site today are the remains of the industrial past of the area, empty of inhabitants. Some of the buildings are designated while others are not, slowly falling apart, and the area as a whole is not designated as a heritage site. The location of the site is very important, since it is located on the Ottawa River between the Province of Ontario and the Province of Quebec. Together with its history, its importance to the collective identity to many groups is undeniable, even if they are no longer present on the islands.

Heritage structures and places are an essential part of navigating self-identification and that is why the connection to so many different groups is what makes the Chaudiere Islands site so important. It is almost a microcosm of the Canadian nation building, representing French, English and Aboriginal points of view. Instead of a “melting pot”, like the American perspective, the Canadian narrative of multiculturalism is understood more as a “salad bowl”, which means a mosaic of multiple cultural identities co-existing and being unified by the fact that they are all different. This makes for an interesting

Figure 12: Offering tobacco near the Falls

Figure 13: Chaudiere Falls with buildings in 1823
process when it comes to identity definition. Heritage, by its very definition and original meaning of an inheritance, implies that there is also the existence of disinheritance. By definition what is heritage for some could not be considered heritage for others, or even the same heritage could be contested and be claimed by more than one group of people in a different way. The concept of disinheritance is closely related to Arendt’s definition of plurality, the condition of reality of all humans when they are existing together and have simultaneous, innumerable perspectives of the common world, “for which no common measurement or denominator can ever be devised.” According to her, we are all equal but distinct, because while “we are all the same, that is, human, (...) nobody is ever the same as anyone who ever lived, lives or will live.” However, plurality is a needed condition, it is a requirement for actualizing human freedom. For one to speak and act, he needs to do that in the presence of an audience with different point of views which makes it a meaningful activity. By making his or her opinions and actions known to others, by facing another differing opinion and by reflecting, one is able to better define himself.

*Figure 14: Aerial view of Chaudiere Falls*
Thus there are two possible outcomes of the inherent dissonance that comes with heritage. The first one is to allow the disinheritance, even if it is unintentional, trivial and concealed, to exist and become a dividing factor. The second one is to see the different point of views as an opportunity for discourse and as a starting point to overcome differences and build a new identity. This is the kind of an opportunity that the Chaudiere Islands site presents.

As already mentioned in Part 1, cultural heritage has the capacity to build positive social connections and social capital through sense of place. Thus the Chaudiere site has the opportunity to do redefine identity by two means, first through the inherent capacity of heritage to build social capital and secondly as a platform to bridge different cultures, reconcile the past and overcome differences. The proposal for the Chaudiere site, Zibi, however, makes the focus of the future project not the rich tangible and intangible heritage, but it fits them together with other more marketable catch-phrases like sustainability, water-front access, bike friendly, etc, into a more complete commercial product that can be purchased.

Figure 15: Shopping at Zibi
and consumed. While the project will include trilingual street signage, in English, French and Algonquin, public plazas dedicated to aboriginal heritage, construction workers of Algonquin descent, the proposed upscale project will most likely not be used by aboriginal people. 15 This revitalization scheme is close to what Pendelburry addresses as an “opportunity space”, where revitalization can occur. 16 He says culture built heritage can bring “a physical quality to regeneration that is not easily reproducible, but where the emphasis is not upon intrinsic historic nature, rather cultural built heritage is an opportunity space in which regeneration may occur.” 17 The Zibi proposal gives a predefined definition of the site to its future inhabitants. Instead of an open discourse, a more bottom-up approach of heritage interpretation, that will support the feeling of continuity and identity, the project gives a top-down interpretation of the site and brings together people on the grounds of consuming a marketable product in a historic background. Chaudiere Falls is an important site to the history of Canada and Ottawa and its reinterpretation in the public conscience should be done in a meaningful way so it overcomes different point of views, builds social capital, provides a feeling of continuity and creates a new identity that brings people together.
Pendelburry states that the impacts of social inclusion or combatting social exclusion are many. They can be measured as outputs such as more jobs and improved environment, or less tangible change such as reinforcing identity and developing community confidence. According to him, both ways to revitalization, as historic place and opportunity space, bring about social inclusion but in a different way. Revitalization focused on historic place extends involvement, changes definitions and widens access, while revitalization focused on opportunity space helps towards neighborhood renewal and physical and economic regeneration. (Figure 16) It could be said that the latter produces more tangible results, while the former more intangible which are equally or even more important as Lazzaretti argues. Her point is that the societal function of cultural heritage is being more and more recognized as a driving force for economic development and not the other way around as it was previously. 19

According to Pendelbury, a new model of partnership building can contribute to a more sustainable revitalization. He says that partnership building has been key in urban regeneration by involving multiple stakeholders. 20 This can be said about an already completed project in Toronto called the Evergreen Brickworks. It is a minimum intervention, more bottom-up approach of heritage interpretation of abandoned industrial heritage. The history of the Brick Works is not as complicated as the Chaudiere Islands in Ottawa. It was a brick factory in use from 1889 to 1985 and fell into disrepair afterwards with no use. 21 The rehabilitation of the site included the restoration of 16 structures with one additional new LEED Platinum building that houses Centre for Green Cities. 22 Note that the site has kept a minimum intervention approach and the addition of only one new building, only slightly changing the look of the site without any drastic and major disruptions. It
Figure 16: Centre for Green Cities: Evergreen Brickworks
is a gradual change which is being promoted as a new model of city-building, in which what is important is the process of redefinition itself, rather than set in stone “preordained solutions.” That is why the programming of the site is flexible as well. There are many uses for the site such as a farmer’s market, conference and gathering spaces, ice rinks and a remediated brownfield park. The reason people are drawn to the site is no longer the production of clay and brick but the cultural built heritage itself has become the recourse, “an amazing landscape and raw space full of opportunity.” Thus people are being brought together on the account of the place providing interesting public programming with the feeling of an historic place. The new inhabitants of the abandoned site are connected to history, nature and city-making. That is they are responding to the flexibility of the historic place by influencing social cohesion and social capital (as Pendelburry says, cultural built heritage plays a role in attaching people to society by linking them to society’s ideas and values), and redefining the city through a feeling of continuity of time and identity. According to Arendt, creating the world around us in turn will condition us. The Brick Works site is important to the redefinition of identity, because instead of the top-to-bottom approach of creating an identity and buying into it, this is a more gradual way of self-realization, which is rooted in the idea of disclosure, or appearing in public. When disclosing oneself to others, there is an acknowledgement from others, a two-way process of determining identity. When taking initiative and appearing in public, amidst the plurality of others, this way of determining identity is contrasted with the acceptance of an already defined identity, prepared by economic forces.

Figure 17: Ladders of CBH (cultural built heritage) and Social Inclusion

**CBH as Historic Places:**

1. Combating social exclusion
2. Extending involvement
3. Changing Definitions
4. Widening Access

**CBH as Opportunity Space for Regeneration:**

1. Combating social exclusion
2. Neighborhood renewal
3. Physical and economic regeneration
Works Cited: Part 2

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8. Ibid
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22. Ibid


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Part 3: Site Description
The Prince of Wales Bridge is located on the Ottawa River. To the South it is close to a neighborhood called Mechanicsville. Mechanicsville is a neighborhood whose beginnings date back to the 1870s, and has been home to many of the workers in the mills and rail yards on the Ottawa River. 1 Mechanicsville is on the Ottawa River and is on the North of Hintonbourg and to the east of Wellington which are neighbourhoods that have recently undergone transformation and are now desirable places to live in the city.

Crossing the Ottawa River, the neighborhood on the other side is part of Centre-Ville- the downtown area of Hull, part of the city of Gatineau. This neighborhood is the oldest one in the region, settled when Philemon Wright chose to remain close to the Chaudiere Falls in 1800. 2 From then on until the 1950s the character of the settlement was of industrial nature and the population were mainly workers. 3

On the Gatineau Side the bridge is accessed by a bike path and the abandoned rail continues further North, where it passes through a residential neighborhood and a main road intersection. On the Ottawa side, there is a bike path that passes under and around the bridge. The rail continues further South where it is discontinued for a short distance and then continued by the O-train line. The O-train line extends all the way to the South end of the city. This, together with its continuance to the North, is what makes the Prince of Wales Bridge such an important connection.

The Prince of Wales bridge provides beautiful views towards the east- the Parliament buildings and downtown Ottawa. It also gives a clear view of Gatineau, Lebreton flats and the Chau-
diere Falls. Towards the west there is a view of the Ottawa River with a series of small islands.

On Lemieux Island there is a water purification plant built in 1916, which provides drinking water for the city of Ottawa. In the same year the city authorized a dead-end siding (track section distinct from the main line), built by the Canadian Pacific Railway. The plant itself is not accessible to the public, however the grounds around it are and there are big open spaces on the island. The accessible part of Lemieux Island is on the river and provides very scenic views.  

*Figure 18: Lemieux Island Park at dusk*
Figure 19: Site Location Map
Past: Rail History

When the Prince of Wales Bridge was constructed, it was part of a wide network of rail that was important for the city of Ottawa. Rail was the only way to deliver goods and the main mode of transportation between cities. In fact, in 1915 the rail lines in the City of Ottawa, which was only spanning to about 3 miles around City Hall, were carrying about 4600 passengers a day on an average of 65 passenger trains. Freight traffic amounted to 289 cars. The railway lines that ran into the city of Ottawa in 1915 were the Canadian Pacific, Canadian Northern Railroad, Grand Trunk Railroad, Ottawa and New York Railway.

Because of the importance of rail at that time, cities throughout North America found it difficult to dictate to rail companies where to locate their lines, stations and rail yards. It was, actually, the other way around—up until 1914 the rail companies dictated to cities the locations of rail lines.

The first real efforts of the city of Ottawa to plan the development of the city, including the rail lines, was done in 1914 by the Holt Commission, which favoured a centrally located station with as few lines into and out of it as possible. There were no real consequences of that commission on the rail lines except the creation of the Union Station in downtown Ottawa.

The next change came with the Greber Commission in 1947 and the plan it made for Ottawa. The Greber Commission favoured removing all rail lines from the centre of the city and replacing them with a ring of track around the build up area of the city.
Figure 20: All time railway maps of Ottawa
“The Prince of Wales Bridge is a reminder of the great epoch of railway building in the 1860s and 1870s.”

Railway activity was buzzing in Quebec in the 1850s and the years after. It was opened by the Quebec, Montreal, Ottawa and Occidental Railway on the 17th January 1881. It was the Quebec government that stood behind the QMO&O committing itself to connecting Quebec with Hull by rail. The bridge connecting Ottawa and Hull was important because the Quebec government had hopes that in time it will sell the QMO&O to the Canadian Pacific.
Figure 24:
The bridge c. 1928

Figure 25:
A train passing the bridge c. 1910
Railway. The line from Montreal to Hull was completed in 1877 and there was a daily train service. The ferry to cross the Ottawa river cost 25 cents. The money for the Prince of Wales bridge was let by the Quebec government - a $193 000 contract to construct a bridge and legislation to establish an Ottawa terminus.

The contract for the piers was awarded to H.J. Beemer of Montreal, who started work on May 20, 1879 with thirty men who were levelling the ground. By July, the labour force included up to 300 men, a 36-foot steam yacht and a 55-foot scow-steamer which were carrying the stones to the piers. In June some of the workers went on strike demanding higher wages from 85 cents to $1.10. The target completion date was December. The project was delayed because of low ground in several spots including Lemieux Island which needed extensive filling.

In October, a problem arose with the construction of pier number 2, when it was discovered that the flat rock on which it was laying was infact unsupported, jutting out of the island. Work was stopped until the problem was resolved.

In December 1879, the first problems with rapid flowing water arose. A loaded barge with clay and 35 men drifted downstream towards the Chaudiere Falls and narrowly missed going through the falls. Work resumed in February 1880, however there were problems again with high water and the proximity of the Chaudiere Falls.

The bridge spans between Ottawa and Hull and in the middle touches on Lemieux Island. Infact the bridge consists of two spans - one from Ottawa to Lemieux Island and another from Lemieux Island to Hull. From Hull to Lemieux Island the bridge spans a total of 1209' (369m) with 6 footings and 7 trusses. The bridge between Ottawa and Lemieux Island spans 943.5' (288m) and has 5 footings and 6 trusses. The length of the trusses from Gatineau to Lemieux Island are: 163’ 9” (49.9m), 258’ 7” (78.8m), 138’ 8” (42.3m), 153’ 9” (46.9m), 153’ 7” (46.8m), 153’ 7” (46.8m), 153’ 8” (46.8m) and the length of the trusses from Lemieux Island to Ottawa are: 6 spans of 153’ 9” (46.9m) each.

Currently the bridge is a Pratt Truss system. When it was originally constructed the truss structure was Whipple truss which is very similar to
Figure 26:
An aerial view of the bridge and Lemieux Island
Pratt truss except the diagonal bracing spans two bays (see figure 24 and 25). The original trusses were lighter and the original spans had become too weak for the heavier locomotives of the 20th century, replacing them with the popular Pratt truss. The tops of the piers were lowered to allow room for the new heavier spans. By February 1927 the $750,000 work was completed without interrupting traffic. Appendix 2 shows the blueprints of the truss replacement. The previous “Phoenix span”, named after the construction company, has thinner and more decorative elements. It also has a narrower and shorter clearance than the replacement spans.

Subsequent use of the bridge in the 1980s included an excursion train from Wakefield to Ottawa, the information booklet for which is in Appendix 1.

The bridge was acquired by the Canadian Pacific Railway on February 25, 1882. The last passenger train to cross it was in 1981, and it has been in disuse since 2001 when it was used to transport material for the construction of the O-train. It was purchased by the city of Ottawa in 2005 with the intention of being part of a future light rail system.
Figure 27: Prince of Wales Bridge Site Plan from March 27, 1879
Main points of access to the bridge are from a bike path on the Ottawa side and a bike path on Gatineau side. While on Lemieux Island, one can access the bridge as well. The bridge is currently closed to the public, however it is in use by many who choose to take a shortcut and walk or bike to either side of the river. Others find it a desirable place to hang out and enjoy the views, while the scenic environment has made a backdrop to many photoshoot sessions. It has been extensively marked by graffiti. It should be noted that while there are people who use the bridge as a pedestrian walkway, the bridge itself is not equipped for use - it does not have railings and there are big gaps in the rail ties, with fast moving water underneath.

Figure 28: A couple having dinner
Site Analysis

Figure 29: Figure ground map of Ottawa region around site
Figure 30: Bridges crossing the Ottawa River, all other bridges are open to cars and pedestrians

Figure 31: Boundary between City of Ottawa and City of Gatineau, also between Ontario and Quebec
Figure 32: Highways, secondary and residential roads highlighted in green and according to line thickness
Figure 33: Existing railway tracks
Figure 34: Bike and pedestrian paths
Figure 35: Parks in the area; Outlined with yellow is Gatineau Park
Figure 36: Important buildings nearby:

- City of Ottawa Water Purification Plant
- Chaudiere Islands Industrial Remains
- Government offices
- Museum of War
Figure 37: Transportation

- **Major Roads**
- **Major Bus Routes** $^{42,43}$
- **O-Train Light Rail Line** $^{44}$
- **Bayview Station** $^{45}$
Figure 38: Future developments:

- Zibi by Windmill \(^{46}\)
- Lebreton Flats by Rendezvous Group \(^{47}\)
- Innovation Centre at Bayview Yards \(^{48}\)
- Light Rail Phase 1 \(^{49}\)
- Light Rail Phase 2 \(^{50}\)
Figure 39: Land use

- **Industrial/brownfield**
- **Residential**
- **Offices/government**
- **Commercial**
- **Educational**
Figure 40: Demographics

Age groups

Type of dwelling

Type of household

Mother tongue

Mechanicville

Centre-Ville

Figure 40: Demographics\textsuperscript{51, 52}
Works Cited: Part 3

3. Ibid
5. Ibid, 26
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Part 4: Project Description
The bridge has been an important part of the history, development and growth of the City of Ottawa. Once it was opened it served an important link in a network of busy railway lines that brought people and goods in and out of the bustling capital. The bridge is a remnant of the industrial past of the city and as a part of the larger Canadian railway network, it represents the history of a young and growing Canadian nation.

This year the bridge turned 135 years old. Its robust structure is still standing although years of disuse has left it with numerous graffiti markings and in needs of repair. The location across the Ottawa river is without a doubt one of unusual beauty. The views that open up to the East and West are some of the best opportunities to view the river, Chaudiere Falls, Parliament Hill, Ottawa and Gatineau all at the same time. The structure of the bridge with its straight linear corridor and repeating structural elements contributes to the appeal of the place. Together with its abandoned and graffiti marked state, it is of interest to various groups of people- photographers, romantics, urban enthusiasts and friends. Many also find the importance of the structure in its location and connection to bike paths, bus routes, and existing train tracks.

This is a place full of potential. Its history, its location and its current uses are just part of the reason why this structure should have a more prominent place in the public discourse. How can the bridge be introduced back into the life of the city while still respecting its heritage significance? The bridge is not a designated heritage structure but in the following pages, guidelines to its rehabilitation are prepared to follow heritage values as per a completed Nara Grid, Statement of Significance and a preliminary Condition Assessment all completed by author.
<table>
<thead>
<tr>
<th>NARA GRID for the PoWB</th>
</tr>
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<tbody>
<tr>
<td>(prepared by author)</td>
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<table>
<thead>
<tr>
<th><strong>Dimensions of Heritage</strong></th>
<th><strong>Form and Design</strong></th>
<th><strong>Material and Substance</strong></th>
<th><strong>Use and Function</strong></th>
<th><strong>Tradition and Techniques</strong></th>
<th><strong>Location and Setting</strong></th>
<th><strong>Spirit and Feeling</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Artistic</strong></td>
<td>Straight linear corridor with industrial aesthetic</td>
<td>Original materials present. Many surfaces have graffiti markings</td>
<td>Most direct connection between Ottawa and Montreal when it was constructed</td>
<td>Industrial aesthetic of exposed steel and connections</td>
<td>The bridge location provides unobstructed views towards Parliament Hill, Chaudiere Falls, Ottawa River</td>
<td>One of few industrial structures remaining in Ottawa</td>
</tr>
<tr>
<td><strong>Historic</strong></td>
<td>Whipple truss system later replaced with similar Pratt truss. First railway bridge to cross Ottawa river</td>
<td>Original 1926 superstructure and rail, original 1881 piers</td>
<td>Currently used for jogging, biking, jumping in the water, hanging out, photoshoots, etc</td>
<td>Constructed with technologies and techniques from the 1880s and 1920s</td>
<td>Part of the Quebec, Montreal, Ottawa and Occidental Railway, became part of Canadian Pacific Railway in 1882</td>
<td>Part of a wider network of railways that operated in Ottawa</td>
</tr>
<tr>
<td><strong>Social</strong></td>
<td>Allowed transportation of goods and people across the river</td>
<td></td>
<td></td>
<td></td>
<td>Link between Gatineau and Ottawa that is used as a quicker connection to either shore, also touching at Lemieux Island</td>
<td>Great lookout spot and place to enjoy the scenery</td>
</tr>
<tr>
<td><strong>Scientific</strong></td>
<td>The Pratt truss system is sturdy and withstands heavy loads. In total there are 13 spans and 11 piers</td>
<td>Heavy steel structure with rivet connections</td>
<td></td>
<td></td>
<td>Spans distance of 640m over the Ottawa River</td>
<td>The truss system and the piers provide an appreciation of engineering</td>
</tr>
</tbody>
</table>
Statement of Significance of the PoWB
(prepared by author)

Description of Historic Place:
The Prince of Wales Bridge is a bridge crossing the Ottawa River, connecting Ottawa and Hull. It crosses the river in two spans— one from Ottawa to Lemieux Island which is 943.5’ long and one from Lemieux Island to Hull which is 1209’ long.  

Heritage Value:
The Prince of Wales bridge’s significance lies in its construction, its historical context and the survival of it as a whole original structure and its detailing. The bridge is an example of construction technology in the end of the 19th century and in the beginning of the 20th when the superstructure was replaced with heavier members. The bridge was built in a time when railway was a major economic force in Canadian history. It was part of the Quebec, Montreal, Ottawa and Occidental Railway, opened on 17th January 1881 and later, in 1886, was acquired by the Canadian Pacific Railway. The historical importance of the bridge is that it provided the shortest distance between Ottawa and Montreal. It is also one of the few remaining structures of the industrial era in Ottawa. The last passenger train to pass the bridge was in 1981. The last freight train to cross was in 2001 during the construction of the adjacent O-train line.

Character Defining Elements:
- Whipple truss system which was later replaced in 1926 by the similar Pratt truss system with heavier members;
- Original 1881 stone piers;
- Landing at Lemieux Island;
- A single track with standard gauge with an inside guard rail;
- Riveted connections;
- Original 1926 steel members;
Visual Assessment Checklist for the PoWB
(prepared by author)

1. Access and Safety
   - Universal Access
     Poor  Moderate  Great  N/A
   - Tripping hazard
     Poor  Moderate  Great  N/A
   - Railings condition
     Poor  Moderate  Great  N/A
   - Path on bridge
     Poor  Moderate  Great  N/A
   - Appropriate entrances
     Poor  Moderate  Great  N/A
   - Appropriate lighting
     Poor  Moderate  Great  N/A

2. Material
   - Concrete/Stone Piers
     - Damage
     - Graffiti
     - Deterioration
       - Cracks
       - Spaling
       - Efflorescence
     - Defect
   - Steel superframe
     - Damage
       - Graffiti
     - Deterioration
       - Corrosion/rust
     - Defect
   - Rivet connections
     - Damage
       - Graffiti
     - Deterioration
       - Corrosion/rust
     - Defect
   - Tracks
     - Damage

Figures 41-44: Bridge details
- Graffiti/ Staining
- Deterioration
  - Warping/ not entirely straight
  - Vegetation
- Defect
- Wooden boards
- Damage
  - Graffiti
  - Missing pieces
- Deterioration
  - Warped/ Deformed
  - Checks
- Defect

3. Other

- Electrical/ telegraph wiring added on superstructure
- Iron decoration on North and South Entrance saying “Prince of Wales”
  - Missing letters
  - Missing decorative elements

Figures 43 - 45: Bridge details

Figures 44 - 51: Bridge details
**Principles and Guidelines of Rehabilitation**  
(prepared by author)

1. Follow the value assessment and protect character defining elements
2. Follow the Canadian Standards and Guidelines
3. Use an approach of minimal intervention
4. Make any new addition removable and not damaging to structure
5. Provide opportunity for interpretation of the history of the bridge
6. Keep industrial character of site
7. Preserve structural integrity
8. Make structure safe and well lit for visitors
9. Provide adequate viewing platforms
10. Promote community activities and public use of spaces
11. Keep current uses of site along with new ones
12. Provide amenities such as shelter, washrooms and storage
13. Ensure better accessibility—parking, connections to nearby paths, bus stations and universal access to structure
14. Reinforce metal work where needed with appropriate replacements
15. Protect and repair deteriorated areas on site

Standard 3 in the Canadian Standards and Guidelines for the Conservation of Historic Places calls for an approach of minimal intervention, even when the project is one of rehabilitation, in which case, minimum intervention means limiting the proposed new use, addition or changes. Standard 11 states that the heritage value and character in new additions and new construction should be conserved and that the new work on the site should be “physically and visually compatible with, subordinate to, and distinguishable from the historic place.”  

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Design Proposal: Goal of Intervention

To make the bridge a part of the life of the city again, an approach of minimal and temporary intervention is taken. Through this intervention the intent is to create more awareness of the site's existence, knowledge of its potential and through those to provide an opportunity for its history interpretation and its future. By making the bridge accessible and safe to visit, linger and explore, a connection is created between its visitors and the abandoned place. This in turn contributes to a sense of place, through which social capital is created, and when there are strong connections between a community it is beneficial for the city in many different ways. As the CHCfE report states: “regeneration of cultural heritage strengthens the cultural value of the area, plays a vital role in raising the attractiveness of the place as well as contributes to its economic prosperity.” 19 By letting the site be transformed gradually, a more indirect approach of creating identity is proposed. Instead of proposing a definition of the place, it is the public interactions on the bridge that will be shaping the identity through interaction with the cultural heritage. The idea is to make the place available to be known by the public, to become a familiar spot in the mental map of the city, to provide a platform for discussion about its rehabilitation.

The Prince of Wales bridge has been in disuse since 2001- already 15 years, and while there were plans about its future, it has remained empty for a long time. In the beginning the bridge was to be used as an extension to the O-train line into Gatineau. 20 While that idea has been abandoned, recently there were other plans to make the bridge into bikeway, 21 a pedestrian walkway by removing the tracks, 22 and another one to make the bridge a part of a network of light rail that connects the smaller towns around Ottawa. 23 Obviously the two most recent plans are contradicting each other, as the removal of the tracks would remove the opportunity to reuse the bridge as a railway. However these
are plans that are being drawn up by few people, while the majority of the Ottawa and Gatineau dwellers are unaware even of the existence of the structure. The proposed architectural intervention will have two goals: to promote awareness that this abandoned historic place exists and to provide a way to come to a decision about its future, while using its temporary abandonment as an opportunity to create social capital and identity between Ottawa and Gatineau.

Since the approach is one of minimal intervention- to keep the structure with as little change, so it will have the same opportunities for rehabilitation in the future, the thesis proposal will make use of what is already on the site- the existing tracks, and the program will reflect of how the site is used currently in its abandoned state- walking, hanging out, enjoying the views. The width of the bridge is 5.11m so while there will be an opportunity to take a bicycle on the bridge, it will be only a walking path, so that it could accommodate the other uses as well. The proposed intervention will be used throughout the year with seasonal use- in summertime it will be a place to sit and walk and in wintertime it will provide shelter from the winds and a straight linear skating rink. To do this, each truss of the bridge will be filled up with about eleven four meter long “cars” that will be rolled on
and assembled one after the other. The summer cars will have seats, tables, and other program elements in them, while the winter ones will just be a path, which would be made into a long linear skating rink. The assembly and disassembly will happen every fall and spring and the unused structures will be stored in a temporary facility at Lemieux Island, which will be located at the end of an already existing siding track. To provide services such as washrooms, refreshments and snacks another structure will be located at Lemieux Island along the main track. It will connect to the existing paths in the dog park on the island and to the parking lot. This structure will be the main entrance to the bridge if coming with a car, and another entrance for walkers and bikers will be at the south of the bridge, close to Bayview Station. The proposal is for the whole bridge, however since the structure is the same from Ottawa to Lemieux as it is from Lemieux to Gatineau (the only difference being the length and number of trusses), illustrated here will be just the Ottawa to Lemieux portion.

Figure 53: Design proposal concept diagram
Figure 54: Exploded axonometric with program
Temporary interventions are seen as secondary to the “real thing”, a substitute for the fully adequate, however that temporal limitation is also what makes them perfect for things that may be inconceivable in the long term. 24 Not only that but they can bring liveliness in the urban experience and fill the gaps that are temporarily created in the city as it so often happens. 25 The word temporary is hard to provide definition for. It means finite time, but how long exactly? Depending on what it is being compared to it could be a long time and it could be a short time. 26 The Prince of Wales bridge was only temporarily left with no use, but 15 years have already passed. This might mean a lot in terms of a human life, but in terms of its 135 years of existence, it could be said that it is only temporarily abandoned.

A city is never at an end state, it is never finished evolving. 27 It is made of many historic layers which exist in a “rich mosaic of contrasting architectural sites.” 28 However when planning for the city, it is almost always a three-dimensional activity, while four-dimensional cities are the reality. 29 That characteristic of cities however, to gradually or drastically change in the future is never seen as a key component of them. 30 Economic uncertainty, vacancy, new technology- these are some of the things that push cities to change and they could be some of the reasons why cities need to plan flexibly in the fourth dimension as well.

Design Proposal: Why temporary?

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Figure 55: Cineroleum inside
The Cineroleum is a project done by a group of artists, designers and architects. The group takes one derelict station in London as their project and creates a temporary cinema there. It is a hand-built cinema with a program of 15 brief screenings.  

The project is interesting because it is a use of an abandoned site that is very unusual and delightfully surprising. The project was executed in this way: fabric was attached to the perimeter of the gas station and was suspended during shows to create a sense of enclosure in the typically open gas station spaces. Inside, there were rows of wooden, hand-crafted seats, a screen and a projector.

The designers commented on their project: “It grew out of a general idea that it would be nice to do something, to actually create a building. It was put together on a budget of just 6500 pounds, in just three weeks, primarily constructed from donated and found materials and drawing on free labour from networks of friends and supporters. With 4000 petrol stations currently lying derelict in the UK, the project demonstrates their potential for transformation into exciting and unusual spaces for public use.”

Figure 56: Cineroleum outside

Figure 57: Cineroleum deployment diagram
Figure 58: Site plan

1. City of Ottawa Water Purification Plant
2. Bayview Station
3. Bayview Yards Innovation Centre (in progress as of writing)
Figure 59: South entrance close to Bayview Station. Existing bicycle and pedestrian path is to connect with the adjacent bridge.

Figure 60: Lemieux Island entrance. Accessible by car and walking. Existing road and parking serve the Ottawa Water Purification Plant.
Figure 61: Entrance to the bridge from Lemieux Island through the new pavilion.
Design Proposal:

To make the bridge safe and accessible, a series of units (called cars from now on) are rolled onto the bridge. They have small rail wheels and are made of wood. The units are self-sufficient: they provide a platform to walk, 1.2 m railing, recessed floor lights, electrical plugs, and each one has a different program inside. In addition, because they are rolled on the bridge individually, each season they can be assembled in a different sequence. The site always changes.

Figure 62:
Individual “car” diagram. Frame made with 2x4 lumber, covered with shell made of 2x1

Figure 63:
Modular Plan. Each season the cars are assembled in a different sequence resulting in a different space
Figure 64: Deployment diagram 1. The cars unfold on the bridge after they are rolled on by a hi-rail, a special vehicle that has regular road tires and is also equipped with rail wheels.

Figure 65: Deployment diagram 2. The cars fold into a box, making them easier to store in the Lemieux Island temporary storage, taking up half of the width and the same height.
Each 4x4.8m car has a different program in its center. The two 1.2m walking paths are on both sides of the program. When the car folds it makes a 2.4x1.2 m box.

Figure 67: Types of cars
Cars have different program elements in them, except empty Car #7 which is used for both summer and winter.
Figure 68 Seasonal change. 4x5m “cars” are rolled onto the bridge using the existing tracks. The summer cars (in yellow here) are present together with the empty cars (in blue) from April to September. In September the summer cars are pushed back and more empty cars are rolled on from storage using the existing siding track. The process repeats in the Spring.

- Represents empty cars (with no program in them)
  - 66 in total, all deployed on bridge during winter, while in summer 33 are in storage and 33 on bridge.
- Represents summer cars (with program in them)
  - 33 in total, all in storage in winter and all deployed on bridge during summer in combination with empty cars.
Seasonal Change: Summer

During the summer the bridge transforms into a lively venue full of activity. It is an ideal place to spend an afternoon picnicking, jog across or bring the workplace outside. The different cars provide opportunity to sit and linger, to shop at a local artisan market or to catch a movie and a beautiful sunset. The empty cars can also be transformed into a kids playground, a splashpad or an impromptu beach. As an opportunity to make some profit for the maintenance of the project, the market spots can be rented out, the different cars could be booked in advance for groups and local coffee shops or restaurants can rent a car and serve their products.

*Figure 69: Render with Long Section and Plan*
Figure 70: Garden render and diagram
Seating

Walking path
Seating is ideal for groups
Recessed outdoor light
Electrical outlet
Walking path

Figure 71: Seating render and diagram
Artisan market

- Canopy to shelter products
- Recessed outdoor light
- Display and store products
- Walking path
- Electrical outlet
- Walking path

Figure 72: Artisan market render and diagram
Workspace

Figure 73: Tables render and diagram
Figure 74: Cinema render and diagram
Empty cars

- Playground assembled on site
- Picnic area
- Pop-up beach with optional sand box
- Pop-up cafe

Recessed outdoor light
Walking path
Area with flexible use
Walking path

Figure 75: Empty cars with flexible uses
1. Car framing: 1x1 and 2x4 framing sandwiched between 2x1 shell
2. 8” caster rail wheel
3. Handles for the car and lock location
4. Connection bolt between two cars
5. Hinge rod with a pneumatic damper to ease the opening of the cars

Figure 76: Short Section with details (applicable for all cars)
Seasonal Change: Winter

During winter time all the empty cars are rolled onto the bridge to provide an unbroken, linear, no obstruction path. The path is lined with tarp and flooded with thin layer of water, which freezes and turns into a skating rink much like an easy DIY backyard skating rink. The water is pumped on to the bridge from the river and in spring it is collected and taken to the water purification plant to remove accumulated pollutants. Since the bridge is in an exposed location on the river, a folded deployable polycarbonate shell is attached to the top of the cars to protect from the strong winter winds.
Figure 80:
Folded shell made of polycarbonate sheet
Using a water pump the melted water is collected and brought for treatment to the water purification plant on the island.

A water pump is used to bring water from the Ottawa river below to the tarp covered bridge.

The overall amount of water needed for to cover the floor of the cars is 134.4 cubic meters for the bridge between Ottawa and Lemieux Island (134 400L). By comparison the amount of water a Canadian uses per year is 93800L according to Environment Canada.

**Figure 81: Winter short section ice rink**
Figure 82: Winter short section ice rink render
On Lemieux Island: theStation

The two structures on Lemieux Island are to provide amenities for the project at the bridge. The storage is 22x32m and it is used to store the extra summer or winter cars, the winter shell canopy and auxiliary equipment such as forklift, water pump and maintenance tools. TheStation is a pavilion that contains a cafe, skate rental and washrooms. As there is a park already on the island this structure can be built for a long term use for the park visitors as well. The idea is that the pavilion’s roof will collect water to use in the washrooms and will have a septic tank with a stabilization pond nearby, similar to the already existing one for the water purification plant.
Figure 84:
The Station Cafe and storage diagram
Figure 85:
Deployment of a single car with table and chairs
Figure 86:
3d printed part of truss with car inside
Figure 87: CNC site model
Figure 88:
CNC site model
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Conclusion
The importance of heritage lies beyond the economic gains which it often brings. The presence of historic buildings is very much linked to social capital and identity. They provide an anchor for the human experience by being a physical link to the past and give a sense of continuity. Preserving historic structures should be viewed as a step towards community building, realizing that economic gains are stronger when they are based on social functions.

Abandoned heritage is important even though it is seen as valuable by very few people. Yet it is a crucial part of the city. It provides a shell and opportunity for great city-making interventions based on history and heritage. While abandonment is rarely seen as something desirable in the city, there is in fact something very important about it- it is inevitable. How can these important but empty of inhabitants places be addressed? How can their potential be revealed?

Cultural heritage can create a sense of place through which social capital is created and it can provide an opportunity for public interpretation. These in turn build new memories and connections that create identity in the people who interact with them. The thesis attempts to take control of the identity creation through the historic built environment. The top-down interpretations give a predefined identity that is often to be purchased. Is there another, more public way to address heritage interpretation? Can it become an act of public interest?

This thesis proposes a more bottom-up approach of heritage interpretation. Through the temporary architectural intervention, the public is invited to come and explore the abandoned site, raising awareness of its importance. When a more permanent decision comes forward made by more inclusive discussion, the intervention is removed and the structure remains intact like it never happened.

The Prince of Wales Bridge is important for the city of Ottawa. It not only is a historic structure built in the railway boom in the early years of the Canadian nation, it is also located on a scenic and beautiful river. The bridge provides a crucial connection between the two cities of Ottawa and Gatineau and also the two provinces, and that is what makes it such an important place for social capital and identity creation. However this important place is not known by many people. The bridge is “temporarily” out of use for 15 years now and this thesis provides a “temporary” intervention that could aid in deciding its future.
Appendix 1: Wakefield Excursion
MANAWI SUBDIVISION

This line was started at the engineer and the engineer's office in 1873. The line was not extended from the engineer's office before 1874. The line was extended from the engineer's office in 1875. The engineer's office was not extended further before 1876. The line was extended from the engineer's office in 1877. The line was not extended from the engineer's office before 1878. The line was extended from the engineer's office in 1879.

SUBDIVISION OF MANAWI

Caes was in 1871 when the promoters of the Ontario and Quebec Railway Company ceased operations due to the financial difficulties of the company. The company was later reorganized in 1880, and the line was extended to the engineer's office. The line was extended to the engineer's office in 1881. The line was extended to the engineer's office in 1882. The line was extended to the engineer's office in 1883. The line was extended to the engineer's office in 1884.

IRONSIDE HULL — (mile 2)

Play station, siding (for the mine, named for the Hull Iron Mine. A deposit of magnetite ore has been known since 1872 when the Hull Mining Co. was formed to exploit it.)

CHELSEA — (mile 6.5)

Warden Thomas John Frenzy, who came from Chelsea, Vermont, was killed on the job. His body was returned to the engineer's office where it was buried in the engineer's office.

IRONSIDE HULL — (point mile 3)

Carpet production was started in the engineer's office. The engineer's office was the site of the Hull Iron Mine. The site of the Hull Iron Mine is several miles north of Ironside Hull.

TENAGA — (mile 8.2)

Two men died at a working facility for the train that ran between the engineer's office and Tenaga. The engineer's office was the site of a working facility for the train that ran between the engineer's office and Tenaga.

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Two men died at a working facility for the train that ran between the engineer's office and Tenaga. The engineer's office was the site of a working facility for the train that ran between the engineer's office and Tenaga.

MUSEUM ELLWOOD JUNCTION

On leaving the grounds of the museum, the next station is the engineer's office, which is located on the engineer's office. The engineer's office is located on the engineer's office. The engineer's office is located on the engineer's office.

MUSEE ELLWOOD JUNCTION

After passing the museum, the train reaches the engineer's office, which is located on the engineer's office. The engineer's office is located on the engineer's office. The engineer's office is located on the engineer's office.

CHAUDERIE SUBDIVISION

At Ellwood Junction, we met with a branch line from the Engineer and the Engineer's office. We met with a branch line from the Engineer and the Engineer's office. We met with a branch line from the Engineer and the Engineer's office.

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The O.G. & O. is an essential part of the engineer's office which runs from the engineer's office to the engineer's office.

THE RAILWAY TO MANAWI

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Appendix 2: PoWB blueprints
Appendix 3:
Presentation Layout
Appendix 4: Process Work
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