Waste of Place:
Heritage Conservation and Environmental Assessment

Christienne Uchiyama, M.A. Candidate, Carleton University
2012

Introduction

When the Brundtland Commission released its 1987 report *Our Common Future*, it emphasized the need to weigh environmental factors along with economics and politics in the decision-making processes in order to achieve sustainable development. Since that time, Environmental Assessment (EA) has been integrated into the decision-making processes of every level of government in Canada to various levels of success with respect to heritage conservation. While cultural heritage is included as an environmental component to be considered in EA, it is not always assessed effectively or equitably. This often results in the waste of construction materials, time, and money and the loss of the sense of place that cultural landscapes and heritage buildings carry with them. This paper focuses on the message that heritage conservation and sustainable development are compatible and complimentary. It further attempts to identify where the disconnect occurs when the heritage community tries to take that message to planning departments, EA professionals, decision-makers, government, and the general public.

Environmental Assessment

Environmental Assessment (EA) first became part of a federal project planning process in 1970 when the United States government passed the *National Environmental Policy Act of 1969* (NEPA). Prior to 1970, federal infrastructure projects were judged almost solely on economic and engineering constraints and factors, but following the NEPA, socio-economic and environmental factors became included in project planning at a federal level.[i] The NEPA became the first federal legislation that weighed a project's impact on the natural environment as a valued factor in decision-making. Since that time, countless governments and

international bodies have followed suit and EA has become common practice in the public realm.

In Canada, federal involvement in EA can be traced to the 1973 creation of the *Environmental Assessment and Review Process* (EARP). The EARP was a policy document outlining the federal government's policy with respect to EA and established a two-phase process: an assessment phase and a public panel review phase. The EARP resulted in the creation of the Federal Environmental Assessment Review Office (FEARO) to oversee the process and the Minister of Environment was given the authority to issue the guidelines for administering the EARP in 1979. The EARP Guidelines Order, issued in 1984, outlined the roles and responsibilities of those participating.[ii] Responsibility for EAs was also given to the Minister of the Environment under the 1985 *Department of the Environment Act,* which required that, the Minister:

> …ensure that new federal projects, programs and activities are assessed early in the planning process for potential adverse effects on the quality of the natural environment and that a further review is carried out of those projects, programs and activities that are found to have probable significant adverse effects, and the results thereof are taken into account.[iii]

Taken together, the EARP Guidelines Order and the Department of the Environment Act gave the impression that Canada had enacted measures to provide for environmentally responsible and sustainable development strategies at the federal

level. This was, however, not necessarily the case. The application of the EARP Guidelines Order was problematic and its fundamental flaws were highlighted in two court cases, the 1989 Rafferty-Alameda case in Saskatchewan and the 1992 Friends of the Oldman River Society v. Canada Supreme Court case, which resulted in an overhaul of federal EA policies.[iv]

Public expectations changed dramatically during the 1980s, resulting in increased public concern for the natural environment and a growing awareness that a number of development projects in the previous 20 years had resulted in considerable environmental damage. On January 23, 1992, the Supreme Court of Canada found that the environment transcends jurisdiction and its protection is the shared responsibility of all levels of government. The ruling furthermore found that the EARP Guideline Orders were not mere Cabinet Policy Statements and "had the force of law, and consequently, had to be complied with in all cases to which they applied."[v]

Cultural heritage was one area of environmental impact in the Oldman River Dam Project as a result of both the archaeological importance of the Three Rivers region and the traditional and continuing use of the Oldman River and surrounding landscape by the Peigan Nation. Both the FEARO panel report and the Supreme Court ruling highlighted the removal of approximately 175,000 individual artifacts[vi] and the regrettable and irreversible loss of the associated archaeological evidence.[vii] The Supreme Court ruling in particular re-emphasized the importance of considering cultural and social factors in development planning decisions, citing the Brundtland Commission holistic view of sustainable development. In his report, Supreme Court Justice Gérard La Forest stated, "I cannot accept that the concept of environmental quality is confined to the biophysical environment alone."[viii]

EARP was superseded in 1992 by the CEAA. The CEAA preamble outlines the four over-arching objectives or principles of the Act:

> WHEREAS the Government of Canada **seeks to achieve**

sustainable development by conserving and enhancing environmental quality and by encouraging and promoting economic development that conserves and enhances environmental quality;

WHEREAS environmental assessment provides an effective means of **integrating environmental factors into planning and decision-making processes in a manner that promotes sustainable development**;

WHEREAS the Government of Canada is committed to exercising leadership within Canada and internationally in anticipating and preventing the degradation of environmental quality and at the same time ensuring that economic development is compatible with the high value Canadians place on environmental quality;

AND WHEREAS the Government of Canada is committed to facilitating public participation in the environmental assessment of projects to be carried out by or with the approval or assistance of the Government of Canada and providing access to the information on which those environmental assessments are based.[ix]

The preamble speaks to Canada's responsibility as a signatory State Party to the Rio Declaration and responds to Principle 17, which resolves that EA should be undertaken at a national level when activities subject to national authority might be the cause of significant negative environmental impacts. The CEAA also responds to Principle 4 of the Rio Declaration which resolves that "in order to achieve sustainable development, environmental protection

shall constitute an integral part of the development process and cannot be considered in isolation from it."[x] Following the coming into force of the CEAA, all federal projects became subject to the CEAA, which bears with it the responsibility for Responsible Authorities (RAs) to consider potential project-related adverse effects on cultural heritage resources.

Sustainable Development

The World Commission on Environment and Development (the Brundtland Commission) released its *Report of the World Commission on Environment and Development: Our Common Future* which challenged the international community to adopt sustainable development strategies. The report encouraged a new approach to planning that invited communities and governments to consider the causes of negative development patterns rather than simply fighting against the results of development.[xi] Sustainable development is defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". This definition is rooted in two key concepts:

- the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and

- the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.[xii]

Neither of these keys concepts is focused exclusively on the natural environment. Yet somehow the North American audience has over time turned *sustainability* into a narrowly focused exercise concerned almost entirely with natural environmental components and ignoring the inter-relatedness of social, built, and natural environmental factors. Conversely, the Brundtland Commission's view of sustainability can be applied as much to projects in urban environments as it can to resource extraction or pipeline projects in Canada's north. *Our Common Future* supported burgeoning EA practices and policies by re-emphasizing the importance of

weighing environmental factors along with economics and politics in decision-making processes. The Brundtland Commission went even further by defining the need to consider a wider spectrum of factors in development decisions and policies, including social factors.

In June of 1992 approximately 100 heads of State and 2400 NGO representatives met in Rio de Janeiro, Brazil for the one week *Earth Summit*. The resulting *Rio Declaration on Environment and Development* resolved in Principle 17 that "environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority".[xiii] That same month the *Canadian Environmental Assessment Act* (*CEAA*) was passed.

Today heritage conservation in Canada is embarking on an environmentally-conscious paradigm which promotes the retention and integration of the existing building stock into future development plans with a view to promoting healthy and vital communities, saving energy, reducing the exploitation of new resources, and reducing the amount of waste from demolition.[xiv] The past few decades have seen a developing understanding of cultural landscapes, which are, by definition, the result of the interactions of human societies with their natural or urban environments. Internationally, expert-led community involvement has been a key component in the identification, evaluation, and management of these cultural landscapes.

Parks Canada places emphasis on the relationship between people and their built and natural environments, stating in its guiding principles that, "people and the environment are inseparable."[xv] Unfortunately, in practice there continues to be a separation of nature and culture. There also exists a physical separation of those persons responsible for natural heritage and cultural heritage. This division of responsibilities has led to a general lack of knowledge and available guidance for cultural heritage professionals in terms of EA practices and theory. Conversely EA practitioners, who generally have a background in the natural environment, lack

knowledge of heritage conservation practice and theory and of the role of culture in sustainability. This has been less the case in the United States and Europe where land-use and management policies are increasingly being approached in a manner that attempts to integrate natural and cultural resources and concerns.

In Canada, construction and demolition accounts for 11 million tonnes of waste annually.[xvi] This, coupled with the exploitation of natural resources for new construction materials to replace entire buildings, hardly paints demolition and new construction as a sustainable development policy, particularly when one considers the amount of energy required to deconstruct or demolish a building and construct a completely new building. Yet the prevailing planning system favours a cycle of purposefully rendering older buildings redundant, demolishing those structures, and replacing them with new structures. Concerns with respect to cultural heritage and sustainability are not limited to the demolition of heritage buildings. It is, however, easy to demonstrate that complete demolition of older buildings in favour of new construction entails loss of embodied energy,[xvii] an increase of construction materials in landfill, the continued exploitation of natural resources for new construction, and often the loss of wildlife habitat.[xviii]

There are links between cultural heritage and the natural environment that can be manifested as tangible or intangible resources, or, in some cases, as a combination of the two. Despite the inherent inter-relatedness of culture and nature with respect to cultural landscapes, it remains difficult to articulate those linkages. Most legislation and policy in Canada dealing with EA was laid out at a time when there was a very limited understanding of the inter-relationships between various components of the environment, particularly the relationship between communities and their environments.[xix] It was only in 1992 that the UNESCO World Heritage Committee recognized the associative cultural values of landscapes and landscape features, particularly for indigenous peoples.[xx] The relationship between communities, heritage values, and the natural

environment is still not fully understood, but there can be no doubt that a relationship exists.

Since the inception of the 1969 NEPA in the United States, EA has become an authoritative planning tool in the public realm. The CEAA requires that potential adverse impacts on cultural heritage be considered, but stops short of meaningful inclusion of cultural heritage in the process. The narrow definition of environment under the CEAA excludes cultural heritage, which has left cultural heritage at a disadvantage with regards to:

- exclusion of cultural heritage from popular understanding of sustainable development;
- a lesser perceived importance of cultural heritage within the EA process;
- the effective separation of federal experts in heritage conservation from federal experts in EA;
- trepidation on the part of the federal government to infringe upon the constitutional jurisdiction of the provinces and territories over cultural heritage; and
- a lack of federal permitting authority or powers related to cultural heritage.

In addition, the separation of heritage conservation and EA expertise has led to a dearth of useful information available to EA practitioners in the federal government on the subject of identifying cultural heritage resources and potential impacts on those resources.

Heritage Impact Assessment

In the early 2000s a study was undertaken to examine the cultural heritage aspect of EAs undertaken in European Union countries. In the absence of a comparable Canadian study the study is considered applicable to the Canadian experience, given similarities in heritage conservation theory and practice and in the basic requirements governing EA. The study included a review of the legal framework, available guidance documents and a survey of heritage conservation and EA professionals in eight member states.

The study found that impacts on cultural heritage were addressed inconsistently despite conditions outlined under the European Union EA Directive and related guidance.[xxi] The study identified three common themes in the course of its surveys and case study reviews:[xxii]

1. Assessment of cultural heritage was very narrow, often taking into account only one aspect of cultural heritage, such as built heritage.
2. There was a general lack of assessment techniques or guidelines designed to develop consistency of assessments or formalize the assessment process.
3. Aspects of cultural heritage were considered too late in the planning and design process to be sufficiently addressed or mitigated.

The first two issues are technical problems related to how cultural heritage is assessed for the purposes of decision-making. The focus on the practice of Heritage Impact Assessment (HIA), or in many municipal settings Cultural Heritage Impact Statements (CHIS), in recent years has attempted to formalize the assessment process and develop tools and techniques to help identify and measure potential project impacts on cultural heritage.

At the 34th Session of the World Heritage Committee Meeting in Brasilia, Brazil (2010) the subject of HIA was raised more than ever before. This trend continued the following year (Paris, 2011) where HIA was a standard inclusion in Committee recommendations. HIA is a relatively new practice, but it is already required, in various forms, in most provincial and territorial jurisdictions in Canada. The practice of HIA has received a great deal of attention internationally in the very recent past, but the practice is far from established. In 2010, the Centre for Heritage Development in Africa produced on overview of the current state of the practice of HIA across the continent based on a 2009 workshop. The report found a number of startling similarities to common complaints in Canada, including:

- Insufficient inter-agency cooperation and synergy between environmental and heritage management and legislation;
- Lack of sufficient capacity in state agencies, institutions and consultancy firms to conduct good Heritage Impact Assessments; and
- Lack of sufficient monitoring and quality assurance mechanisms for Heritage Impact Assessment processes.[xxiii]

It was only as recent as January, 2011 that ICOMOS released *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties*. The publication is meant to provide guidance for commissioning HIAs for World Heritage Sites and relies on pre-existing management plans and statements of outstanding universal value that are required prior to the inscription of any site onto the List. As the practice of HIA grows in popularity, methodologies and tools continue to be developed. More attention needs to be paid to this burgeoning practice in Canada as the undertaking and review process remains largely misunderstood and highly inconsistent.

In Ontario, for example, HIA is increasingly undertaken as part of the Municipal Class EA process and is becoming a common requirement of the heritage permit application process in many municipalities. The Ontario Ministry of Tourism, Culture and Sport (MTCS), however, has yet to develop a comprehensive toolset for the preparation of HIAs or a consistent method for the review of HIAs submitted for their comment or approval. Recent requirements under Section 22 of *Ontario Regulation 359/09, Renewable Energy Approvals Under Part V.0.1 of the Environmental Protection Act* require HIAs be undertaken and accepted by the MTCS as part of the Renewable Energy Application process. MTCS guidance is sparse with regard to HIA; being limited to four pages in the MTCS's InfoSheet series interpreting the 2005 Provincial Policy Statement. The InfoSheet outlines seven components to be included in HIAs for the Province:[xxiv]

1. Historical Research, Site Analysis and Evaluation

2. Identification of the Significance and Heritage Attributes of the Cultural Heritage Resources
3. Description of the Proposed Development or Site Alteration
4. Measurement of Development or Site Alteration Impact
5. Consideration of Alternatives, Mitigation and Conservation Methods
6. Implementation and Monitoring
7. Summary Statement and Conservation Recommendations

The document also identifies seven potential negative impacts to be assessed as part of the HIA: destruction; alteration; shadows; isolation; obstruction of views; change in land use; and land disturbances.[xxv] This brief outline, which is similar to advice given in other jurisdictions, represents a starting point for the undertaking of HIA. What remains to be done is to explore and standardize methods for the measurement of impacts and the recommendation of mitigation measures that can be applied within the EA process and planning process more generally. It is also clear that, in order to effectively assess impacts on cultural heritage and implement adequate project design and mitigative measures, HIA must be undertaken early in the planning process rather than at the pre-construction phase, as is often the case.

In Canada, there is also a lack of reliable and comprehensive baseline data that could be used to understand how the cultural heritage aspects of EAs are prepared.

Heritage impact assessment is still an inexact science. The ability to consistently apply techniques and methods for the measurement of impacts is difficult and requires extensive interdisciplinary partnerships for research and dissemination of the results of that analysis. For example, little research has been done into the effects of vibrations from traffic or construction over the past ten years or into the loss of embodied energy associated with demolition and new construction. Even among heritage professionals, our bias often leads to 'designation blinders' and too often projects that won't have a direct impact on built

heritage resources or cultural heritage landscapes are often missed. We see this in the case of viewscapes, where there is still a lack of tools and techniques to identify, justify and protect significant views in a way that carries clout in the prevailing planning system.

The end goal is for those preparing and reviewing EAs to accept cultural heritage as a component of the environment and to understand how cultural heritage can be better integrated into the planning process. This may not be possible without consistent and well-developed techniques for the assessment of cultural heritage within the EA framework. Before cultural heritage is fully incorporated into the EA process there is a need to develop HIA techniques, tools and methods and to share them with a wider audience through training and education.

Conclusions

Cultural heritage has been recognized as an integral component of sustainable development since the 1987 release of *Our Common Future*. In the realm of planning, it is often included in the EA process. However, it is not always included in the assessment of projects as a result of inconsistencies in the timing and extent of participation and the lack of undeveloped tools and techniques to fully address potential impacts to cultural heritage. The result is often the loss of cultural heritage, destruction of natural resources and wildlife habitat, and the waste of materials, time and embodied energy.

In their 1996 review of the federal EA process written on the heels of the Rafferty-Alameda and Oldman River cases, Sadar and Stolte stated, "It is always difficult, if not impossible, to justify what some perceive to be a loss or erosion of community identity or property, and damage to spiritual, cultural, and heritage sites."[xxvi] Although much headway has been made over the past almost 20 years, this attitude is still prevalent among many decision-makers and EA practitioners. Through inter-disciplinary participation, it may be possible to develop tools and techniques to quantify, or at the very least better express, project impacts on heritage and ultimately bolster the role of heritage in the planning process.

i Owen D. Harrop and Nixon, *Environmental Assessment in Practice* (New York: Routledge, 1998), 9.

ii M. Husain Sadar and William J. Stolte, "An Overview of the Canadian Experience in Environmental Impact Assessment (EIA)," *Impact Assessment*, 14 No.2 (1996): 215-216.

iii *Department of the Environment Act* R.S.C., 1985, c. E-10, s. 5(a)(ii).

iv Kristen Douglas, *Bill C-13: Canadian Environmental Assessment Act*, Legislative Summary (Ottawa: Library of Parliament, 1992), 1.

v Monique Hébert, "The Oldman River Decision of the Supreme Court of Canada," Library of Parliament, Research Branch. Background Paper BP-287E (Ottawa: Library of Parliament, 1992), 1.

vi Glen, *Once Upon an Oldman*, 156.

vii Although modern archaeological best practices involve meticulous recording of archaeological features, excavation is a destructive and irreversible undertaking regardless of whether the goal is mitigation or academic research.

viii *Friends of Oldman River Society v. Canada* Supreme Court Ruling (Ottawa: Supreme Court, 1992), 43.

ix *Canadian Environmental Assessment Act*, R.S., 1992, c. 37. (emphasis added)

x UNESCO, *Report on the United Nations Conference on Environment and Development, Annex 1: Rio Declaration on Environment and Development, A/CONF.151/26* Vol.1, (Paris: UNESCO, 1992).

xi Denhez, *The Heritage Strategy Planning Handbook*, (Toronto: Dundurn Press, 1997), 39.

xii Ibid.

xiii United Nations, 1992, "Report of the United Nations Conference on Environment and Development, Annex 1: Rio Declaration on Environment and Development," A/CONF.151/26 (Vol. 1), accessed online at http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm.

xiv Heritage Canada Foundation, *Exploring the Connection Between Built and Natural Heritage* (Ottawa: Heritage Canada Foundation, 2001), I, accessed November, 2011 http://www.heritagecanada.org/eng/GreenReport2Eng-Read.pdf.

xv Parks Canada, *Parks Canada Guiding Principles and Operational Policies*, (Ottawa: Parks Canada, 2009). Accessed November, 2011 at http://www.pc.gc.ca/docs/pc/poli/princip/sec1/part1d.aspx.

xvi Mark Gorgolewski, "Session 1: Ecological Building," in *Heritage and Sustainability: Canadian Communities and Kyoto, Heritage Canada Foundation Annual Conference Proceedings, 2005*. (Ottawa: Heritage Canada Foundation, 2005), 9-10.

xvii Embodied energy is a concept that dates back to the 1970s energy crisis. It can be defined as "the amount of energy associated with extracting, processing, manufacturing, transporting and assembling building materials." A study published by the US National Trust for Historic Preservation 1981 outlines energy savings, in terms of embodied energy, under various scenarios. The study identifies significant savings when existing buildings are retained.

xviii Julie Gelfand, "Built Heritage Conservation and Wildlife: a Meeting of the Minds?" ICOMOS Canada Momentum (1991): 8.

xix Sadar and Stolte, *Overview of a Canadian Experience,* 226.

xx Mechtild Rössler, "*Linking Nature and Culture: World Heritage Cultural Landscapes,"* pp.10-15 in Cultural Landscapes: the Challenges of Conservation. World Heritage Papers 7 (2002), 10.

xxi Ibid., 38.

xxii Ibid., 41.

xxiii Harriet Deacon, "Cultural Heritage Impact Assessment in Africa. A Review," accessed September, 2011 at http://www.heritageinafrica.org/news/119.html.

xxiv Ministry of Culture (MTCS), "*Heritage Impact Assessments and Conservation Plans*. Sheet No. 5, Information Sheet Series from Heritage Resources in the Land Use Planning Process: Cultural Heritage and Archaeology Policies of the Ontario Provincial Statement, 2005," (Toronto: Queen's Printer, 2006), 2-3.

xxv Ibid., 3.

xxvi Sadar and Stolte 1996, p.222.

Bibliography

Department of Environment Act, R.S.C., 1985, c.E-10. (1985).

(1992). *Friends of the Oldman River Society v. Canada (Minister of Transport).* Supreme Court Ruling (January 23, 1992).

Canadian Environmental Assessment Act, S.C. 2002, c. 37. (n.d.).

Deacon, H. (n.d.). *Cultural Heritage Impact Assessment in Africa, A Review.* Retrieved September 2011, from http://www.heritageinafrica.org/news/119.html

Denhez, M. (1997). *The Heritage Strategy Planning Handbook.* Toronto: Dundurn Press.

Douglas, K. (1992). *Bill C-13: Canadian Environmental Assessment Act.* Ottawa: Library of Parliament.

Gelfand, J. (1991). Built Heritage Conservation and Wildlife: a Meeting of the Minds? *ICOMOS Canada Momentum*, p. 8.

Glen, J. (1999). *Once Upon an Oldman: Special Interest Politics and the Oldman River Dam.* Vancouver: UBC Press.

Gorgolewski, M. (2005). Session 1: Ecological Building. *Heritage and Sustainability: Canadian Communities and Kyoto, Heritage Canada Foundation Annual Conference Proceedings.* Ottawa: Heritage Canada Foundation.

Harrop, D. O., & Nixon, J. (1998). *Environment Assessment in Practice.* New York: Routledge.

Hébert, M. (1992). *The Oldman River Decision of the Supreme Court of Canada.* Ottawa: Library of Parliament, Research Branch.

Heritage Canada Foundation. (2001). *Exploring The Connection Between Built and Natural Heritage.* Ottawa: Heritage Canada Foundation.

Ontario Ministry of Culture. (2006). *Heritage Impact Assessments and Conservation Plans. Sheet No. 5, Information Sheet Series from Heritage Resources in the Land Use Planning Process: Cultural Heritage and Archaeology Policies of the Ontario Provincial Statement, 2005.* Toronto: Queen's Printer.

Rössler, M. (2002). Linking Nature and Culture: World Heritage Cultural Landscapes. In *Cultural Landscapes: the Challenge of Conservation, World Heritage Papers 7* (pp. 10-15). Paris: UNESCO.

Sadar, M. H., & Stolte, W. J. (1996). An Overview of the Canadian Experience in Environmental Impact Assessment (EIA). *Impact Assessment, 14*(2), 215-228.

Stolte, W. J., & Sadar, M. H. (1993). The Rafferty-Alameda Project and its Environmental Review: Structures, Objectives and History.

Canadian Water Resources Journal, 19(1), 1-13.

United Nations. (1992). *Report on the United Nations Conference on Environment and Development, Annex 1: Rio Declaration on Environment and Development, A/CONF.151/26 (Vol.1).*