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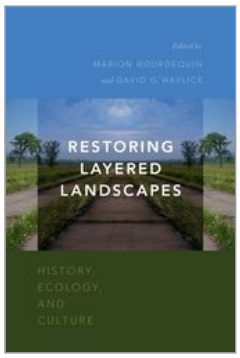

Restoring Layered Landscapes: History, Ecology, and Culture
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Environmental versus Natural Heritage Stewardship

Nova Scotia’s Annapolis River and the Canadian Heritage River System

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Abstract and Keywords

Mindful of the keen public interest in heritage preservation, environmental organizations have routinely characterized nature as a “heritage” asset to be preserved for future generations. But while doing so has often proved effective for winning public support for environmental initiatives, it can lead to a conflation of environmental with “natural heritage” stewardship that is at best misleading and at worst can undermine both endeavors. The chapter uses a failed campaign to nominate the Annapolis River to Canada’s Heritage Rivers program to illustrate the problems that can arise when divergences between these two forms of stewardship are overlooked. Recognizing the differences is

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essential if we are to maximize our changes of achieving a satisfactory convergence between them.

Keywords: natural heritage, heritage preservation, environmental stewardship, Annapolis River

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Introduction

The rapid transformation of built and natural environments since industrialization has resulted in the loss of iconic features of human environments. Wherever these losses have been perceived as threatening to eradicate surviving relicts of vanishing ways of life, heritage movements have proliferated in response. Artefacts, buildings, crafts, languages, and music, formerly seen as the property or practices of particular individuals upon which none but their immediate survivors could lay claim, are reconceptualized by heritage associations as the collective property of a whole community and thus the birthright of all its members. The reconceptualization of artefacts and practices as communal legacies has proved an effective means of generating public support for preservation of the artefacts and practices targeted by heritage initiatives. Environmental organizations have followed suit, routinely describing wild species and ecosystems as “natural heritage” assets, in the hopes of motivating public interest in their conservation or restoration. In this respect, the tactic of characterizing environmental stewardship as a special form of heritage stewardship has often been successful. Unfortunately, it has also encouraged an uncritical identification of environmental stewardship with natural heritage stewardship that is, at best, misleading and, at worst, liable to undermine both endeavors. Unless we appreciate the ways these two forms of stewardship diverge, strategies adopted to promote them may turn out to serve one at the expense of the other.

(p.113) I take environmental stewardship to be the management of human activities that affect the natural environment, undertaken to protect the integrity of ecological systems, resources, and values for the sake of present and future generations (Welchman 2012). Environmental stewards study the past for insights into the impact of human activities on wild species, environmental assemblages, and ecosystem services, together with the values these elements support. If historical evidence suggests that human exploitation has diminished or is diminishing the integrity of the environmental systems future generations will inherit, environmental stewards will seek to re-engineer human activities to reverse those impacts. Heritage stewardship in all its forms likewise aims at maintaining the integrity of resources for future generations. But with heritage stewardship, the concern is

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focused on those resources, both cultural and natural, perceived as fostering the continuance of a particular community's identity and values through time. Consequently, while preserving or restoring a particular natural species or ecological system is sometimes of equal concern to both environmental and heritage stewards, their objectives, and consequently the means they will favor, can differ significantly. This is particularly likely when the species, systems, or assemblages occur in regions of cultural and environmental significance.

In what follows, I illustrate the problems that can arise when environmental and heritage stewardship are conflated by examining the failed campaign to win federal heritage status for Canada's Annapolis River. I begin by providing background on the Canadian Heritage River System (CHRS) program and then examine the campaign and its outcome. After reviewing the peculiar ways that heritage and environmental stewardship were conflated in the process by Parks Canada, the lead agency managing this federal government program, I conclude with a discussion of the relationship of environmental and heritage stewardship and their respective implications for restoration projects on landscapes with both environmental and human heritage value.

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The Canadian Heritage Rivers System and the Annapolis River Campaign

The CHRS is a joint venture of provincial, territorial, and federal agencies, led by Parks Canada, providing national recognition to “important heritage rivers,” so that “the opportunities they possess for recreation and heritage appreciation are realized by residents of and visitors to Canada” (Parks (p.114) Canada 1984, 3).[1] The program aims to protect the rivers of (i) outstanding heritage value, human or natural, or (ii) outstanding recreational value, by providing incentives for community-based management initiatives. The program is competitive. Communities must first organize to prepare proposals and development plans for submission to provincial officials. Only after provincial approval is received are rivers officially nominated to the CHRS board for consideration. The potential rewards are significant: the pride of possession of a national asset, federal assistance in developing a holistic ecological management plan, and the enhancement of local tourism and recreational industries. These are incentives for communities to pursue ecologically friendly forms of development over more damaging alternatives.

No community responded to the announcement of the program in 1984 with greater alacrity than did Nova Scotia’s Annapolis Valley on behalf of the Annapolis River. As the Annapolis River watershed had been home to some of the earliest European settlements in Canada and was home to the indigenous Mi’kmaq for thousands of years, community leaders were confident their river would win recognition as an outstanding cultural heritage asset. They were motivated by more than simple pride or economic aspirations. Four hundred years of continuous European settlement had taken a toll on the watershed’s environmental integrity. The Annapolis Valley Affiliated Boards of Trade were concerned by mounting evidence that their river’s ecological health was in decline. The need to develop a comprehensive management plan was becoming urgent. Thus the CHRS program seemed to offer a timely solution to their problem. It took the Boards of Trade only a year to prepare and submit their proposal on behalf of the Annapolis River to the province’s Ministry of Lands and

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Forests (Annapolis Valley Affiliated Boards of Trade 1987, 7; Legard 1986, 4).

The Annapolis River is neither unusually long nor fast moving by Canadian or provincial standards. For much of its length, it meanders through agricultural lands most noted for extensive apple orchards. The last third of the river becomes tidal as it approaches its mouth on the Annapolis Basin (a sub-basin of the Bay of Fundy). The river's tidal range in this section was once 7 to 9 meters (25 to 29 feet); unusual for rivers in other parts of Canada but not for those affected by the Bay of Fundy's extraordinary tides. In earlier periods, Fundy tide waters had supported extensive salt marshes along the river's lower banks. But through an ingenious system of dikes, French Acadian settlers and their successors had turned most of these into farmland, well before the end of the eighteenth century. By the mid-twentieth century, the costs of maintaining the dikes against rising (p.115) tides and storm surges had grown prohibitive. So for flood control as well as transportation, a causeway was built just above the river's mouth to restrict normal tidal amplitude upstream to just 1 meter. A prototype tidal power generating station was added to the causeway in 1984 (Daborn et al. 1979).[2]

These modifications mitigated the threats to farms, homes, roads, rail lines, and other infrastructure near the river's banks, with the added benefit of supplying clean, renewable energy. However, there were indications that these modifications were also contributing to a decline in water quality and the loss of biodiversity. Studies of the causeway's impact on the river revealed significant unintended ecological effects. The restriction of tidal flows was restricting the mixing of saline and fresh water upriver of the causeway, with the result that subsurface oxygen levels were significantly depleted (Dadswell, Rulifson, and Daborn 1986). Reducing tidal flows was also reducing tidal flushing of pollutants entering the river from storm drains, farms, and outdated sewage-treatment systems, so pollutant levels were rising. Other modifications to the river's shorelines compounded the negative effects of the causeway and dam. Salt-marsh depletion and deforestation along the river and its tributaries were contributing to bankside erosion. Dams and poorly constructed culverts on tributaries were blocking fish passage to spawning areas. The tidal power station's turbines appeared to be adding to the problem, killing many of the fish

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attempting to swim upstream to spawn.[3] Local anglers were calling for action, fearing further declines in the shrinking fish stocks (Annapolis Valley Affiliated Boards of Trade 1987, 7). In response to these and related problems, the Boards of Trade had already sought a federal grant to conduct a cleanup and improve amenities along the river's upper reaches (Annapolis Valley Affiliated Boards of Trade 1985, 1). Nevertheless, the Boards of Trade did not expect the river's water-quality issues to be a serious threat to their campaign. In 1985 they released a new tourist guide, *Canoe Annapolis River*, inviting visitors to canoe, fish, and sail along "one of the most historic rivers in Canada" (Annapolis Valley Affiliated Boards of Trade 1985, 2).

Their hope of success did not seem not unreasonable, as the CHRS program guidelines permitted the nomination of rivers with "outstanding Canadian value" in any one of three categories: natural heritage value, human heritage value, or recreational potential (Parks Canada 1984, 13). Outstanding value in more than one category was not required. While the CHRS guidelines also required rivers to meet certain criteria for (p.116) "ecological integrity," there was no requirement that rivers be "outstanding" in this respect.

To qualify on *natural heritage* grounds, a river had to possess "outstanding" representations of the major geological, fluvial, and/or other natural forces shaping the watershed or, alternatively, would have to support rare, unique, or outstanding natural phenomena and/or rare or endangered species. The Boards of Trade frankly acknowledged that "the river, though beautiful in many different ways, does not, to the best of our knowledge, possess natural features unique to the province of Nova Scotia" (Annapolis Valley Affiliated Boards of Trade 1986, 8). Neither the placid Annapolis nor its valley exhibited any remarkable geomorphic or other physical features. None of the river's flora and fauna were unique or of special importance for preserving biodiversity either in Nova Scotia, specifically, or in Atlantic Canada, more generally.

To qualify for *recreational* appeal, a river had to afford natural scenery that "would provide a capability for an outstanding recreational experience," experiences visitors could enjoy without detriment to the river's "natural, historical, or aesthetic values" (Parks Canada 1984, 15). Here again, the Annapolis failed to qualify. No striking or unusual landforms,

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rapids, waterfalls, or any other scenic features graced its course. All its recreational amenities were readily available elsewhere.

Therefore, the Boards of Trade campaign relied on the river's *human heritage value*. To qualify in this category, a river had to possess (1) outstanding importance in the historical development of Canada's "native people, settlement patterns and transportation"; (2) associations with persons, events, beliefs, or achievements of "Canadian significance"; and (3) historical sites "unique or rare or of great antiquity" and/or representative of "major themes" of Canadian history. In this respect, the river's claims seemed unassailable.

Port-Royal, Canada's first successful European settlement was established in 1605 near the river's mouth and later relocated to the site of present-day Annapolis Royal. From Port-Royal, settlements spread along the river. Port-Royal itself served as the capital of French Acadian Canada for over a century. Such was the town's strategic significance in this period that it was fought over more times than any other community in North America (Dunn 2004, viii). Earthworks constructed by a failed Scottish colony in 1629 are still visible at the site of present-day Fort Ann. Rebuilt and expanded by a succession of occupiers, Fort Ann was attacked by British, French, and Mi'kmaq forces, and even American privateers (Dunn (p.117) 2004).[4] Though few original Acadian buildings survived the hostilities, many notable eighteenth- and nineteenth-century structures remain.

Moreover, the Annapolis Valley had been a focal point of Canadian heritage tourism since the mid-nineteenth century, thanks to the international success of Henry Wadsworth Longfellow's poem, *Evangeline: A Tale of Acadie* (Longfellow 2004). Longfellow's poem delighted readers with its romantic depiction of the lives of Acadian residents of the village of Grand Pré prior to their deportation in 1755. Soon after its publication in 1847, visitors began to arrive in Grand Pré hoping to immerse themselves in their imaginary heroine's environment—to look seaward, as Evangeline had done, over the Acadians' verdant fields, from the village's site at the edge of what Longfellow assured his readers had been, and still remained, "the forest primeval."

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These visitors should have gone home disappointed. Like many Acadian communities, Grand Pré had been demolished by the British to discourage deportees from returning. Their holdings were redistributed to Anglophone colonists of British or American extraction, such as the New England Planters and, later, the Empire Loyalists (refugees from America's revolutionary war). There were few relicts of the eighteenth century: a stand of elderly French willows and a disused stone well, both of dubious connection to the Acadian colonists. One could indeed gaze over verdant fields from the site of the lost village; but thanks to Anglo-American redevelopment, these were not the fields Evangeline herself would have seen, had she ever existed. No "forest primeval" bordered those fields—not because of deforestation but simply because no forest of the type Longfellow described had ever existed in the region. Nevertheless, visitors routinely left the site entirely satisfied. The willows, the stone well, and the sprinkling of conifers around the site were sufficient for many to make the emotional connection they sought with the long-lost village and its inhabitants, real and imaginary. (To assist the less imaginative, the site was later embellished with a statue of Evangeline, a memorial church, a commemorative cross, and other amenities; McKay and Bates 2010).

Evangeline triggered a fascination with all things "Acadian" that sustained tourists' interest long after the poem's popularity faded. The Acadian diaspora began to return to visit the sites of pivotal events in their family histories. Descendants of later British and American settlers came to see where their ancestors had become Canadians. As more tourists came, new sites of heritage interest were uncovered, re-created, or commemorated throughout the Annapolis Valley. Fort Ann became a national historic site in 1917. A replica of the original Port-Royal (p.118) settlement, the Habitation, was constructed at Annapolis Royal. Sites of former Acadian homesteads were located and marked along the Annapolis River, as well as sites associated with notable New England Planters, Empire Loyalists, and later settlers. Serious exploration of the heritage value of Annapolis River for the Mi'kmaq people and their diaspora began. In the 1980s, two significant archaeological sites were discovered along the river.

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Since the Annapolis River's claim to outstanding Canadian human heritage value seemed assured, the only potential bar to success appeared to be the criteria for ecological integrity. Parks Canada had specified that the area of the river to be designated should be of "sufficient size and contain all or most" of the processes and properties of the river crucial for its outstanding value in the nominated category; that it should contain "ecosystem components required for continuity of the species, features or objects to be preserved;" and that the water quality should be sufficient to allow for the "continuity and/or improvement of the resources upon which 'value' to the system has been determined" (Parks Canada 1984, 16). As the Boards of Trade interpreted them, these criteria did not seem to present significant problems.

Some aquatic species and communities of life previously native to the river had been lost, and the water quality in certain stretches of the river was seriously impaired. But the CHRS criteria appeared to require only that existing "ecosystem components" and communities of life should be sufficiently robust to survive or recover with attentive management. As to water quality, the CHRS criteria seemed to require only that the river's existing water quality was or could be restored to levels adequate to support the features central to its claim to "outstanding" value. The Annapolis watershed's human heritage features were not at risk from existing impairments to the river's water quality. Nevertheless, the Boards of Trade were committed to improving the river's ecological and water quality with CHRS program support.

Thus community leaders were shocked and dismayed when two years later the proposal was rejected for insufficient environmental integrity. The Boards of Trade immediately requested a meeting with provincial officials to learn what had gone wrong. At this point, it became apparent that their campaign was up against two insurmountable obstacles. The first was Parks Canada's conflation of natural heritage and ecological values. As far as Parks Canada was concerned, these were one and the same thing. Rivers lacking one necessarily lacked the other. The second was that as Parks Canada and other federal agencies of the day understood "national (p.119) heritage," the historical associations of the

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Annapolis River did not entail that it possessed national heritage value.

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Juggling History, Heritage, and Environmental Values

As David Lowenthal argues in *The Heritage Crusade and the Spoils of History*, while “heritage” and “history” enterprises overlap, they differ in significant ways. History is (or aims to be) a form of empirical inquiry whose objective is the production of accurate accounts of past events. Historians’ conclusions about the past are, of course, never wholly free from cultural or personal biases; nevertheless “testable truth” is the intended outcome. By contrast, Lowenthal points out, heritage enterprises are not attempts to construct “a testable or even a reasonably plausible account of some past, but a *declaration of faith*” in a narrative of the past that gives meaning and contributes to a community’s continuing sense of its identity. Heritage narratives cannot float completely free of the known past, but they may—and routinely do—exercise considerable creative license regarding the historical facts on which they draw. The degree and scope of creative license taken is a function of the narrative’s pedagogical goal, which is to educate present and future generations in how best to interpret a group’s past history, not simply to recount it (Lowenthal 1998, 121).

Genuine historical relicts can be of great value for heritage appreciation as they facilitate feelings of direct connection with the persons, places, and events of special significance for a group’s or nation’s heritage. But reconstructions can be equally effective means for achieving imaginative engagement with the past, as the popularity of reconstructions such as the Shakespearean Globe Theatre in London and the Habitation in Annapolis Royal amply demonstrate. Furthermore, much of what is most central to any group’s shared sense of its identity are intangibles, such as languages, myths, and cultural practices. To create or enhance emotional connection with these aspects of group heritage, it is sufficient to provide appropriately configured *performative spaces* in which they can be re-created and re-performed. Performative spaces can be provided by either authentic locales or restorations; for example, eighteenth-century blacksmithing can be re-enacted just as effectively in a twenty-first-century replica as in a carefully preserved antique structure. And because heritage is only tangentially related to actual historical events, fictional persons and events can become bearers of heritage value with

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which individuals and groups will seek to engage through suitable performative spaces. For example, thanks (p.120) to the enduring influence of Conan Doyle's Sherlock Holmes stories on Britons' (and others') sense of British identity, values, and traditions, visitors flock annually to London's Sherlock Holmes Museum, at the fictional address 221b Baker Street, for the pleasure of immersing themselves in Holmes's environment, even though neither Holmes nor even the London of Conan Doyle's stories ever truly existed.

As heritage is always a matter of a group's subjective *appreciation* of its history, there are no objective measures to which rival parties can appeal when disputes arise about the heritage value to be assigned to particular objects, persons, practices, or landscapes. In societies composed of disparate groups with distinct heritage traditions, one and the same historical thing or event can bear different and even incompatible heritage values. When this is the case, neither the antiquity nor the authenticity of that historical relict can be relied upon to resolve the disputes, for such qualities are only contingently related to its heritage value. The real determinant is always the capacity of a given place or object to evoke a visceral connection with the past persons, events, or practices that a group's heritage tradition presents as significant contributors to its collective identity.

In the case of landscapes, such as the landscape through which the Annapolis flows, the heritage value arises not from historical facts about its discovery in 1603 by French explorers or its earlier history as a Mi'kmaq homeland. It depends entirely on the role it plays in individuals' subjective appreciation of that history. For descendants of the Mi'kmaq, French Acadian, Scots, British, and American immigrants who arrived before the nineteenth century, the pivotal role played by the Annapolis River watershed in their lives makes it the bearer of considerable heritage value. But for descendants of the immigrants who arrived on Canada's Pacific Coast, it may have little or none.

In young nations like Canada, whose populations have grown quickly through waves of immigration from many lands, governments are often tempted to try to kick-start the development of a common sense of national identity. Rather than wait the decades or even centuries that might pass before a shared Canadian identity would evolve naturally,

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Canadian governmental authorities decided to create a national heritage tradition that would inculcate the values they approved. For reasons noted earlier, a national heritage tradition could not be rooted in events or experiences with which many immigrants and their descendants would not be able to identify. The solution was to root it in the experience of immigration itself, or more specifically, in the experiences of exploration and adaption to Canada's vast territory that in some (p.121) way or other all immigrants shared whenever and however they might have arrived. These became the officially endorsed bases for collective Canadian national identity from the 1930s through the 1980s: immigration and adaption to the vast Canadian landscape. The *voyageurs*, seventeenth- and eighteenth-century French, British, and Metis traders who established transcontinental trade routes from Canada's coasts through its wilderness interior, became the officially endorsed icons of Canadian's collective cultural ancestry.[5]

As Claire Campbell points out, this way of coping with the problem of creating a common national identity had many appealing features for the governmental agencies promulgating it:

> Nineteenth-century romanticism in both Europe and North America incorporated a strongly romantic attitude towards nature; by claiming a native landscape as part of its historical origins, a nation could make a stronger case for both its "natural" territory and its cultural distinctiveness … [T]his would of course appeal to a relatively young country perpetually insecure about the integrity of its identity and its borders
>
> (Campbell 2008, 11–12).

In this context, the symbolic value of the *voyageur*, paddling his canoe along wilderness rivers from settlement to settlement, French, English, and Aboriginal, was enormous because the *voyageur* transcended any one particular locality or ethnic identity, just as his transcontinental journeys transcended regional boundaries. As Campbell goes on to note, "Commemorating routes of exploration and trade implied a continental destiny of the future Canada, a justification for its existing borders … that these river routes predate provincial boundaries naturalized and privileged national

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cohesion over any provincial claims to distinctiveness" (2008, 13). Federal agencies promulgated Canada's *voyageur* heritage through public monuments, publications, and educational initiatives through the 1980s. Promulgation of the official "national" heritage narrative of the wilderness-traversing *voyageur* as Canadian's common cultural ancestor would become central to Parks Canada's mission. An early policy statement declared:

> In Canada we still have rivers that flow through essentially natural environments, their channels unobstructed and their waters relatively unpolluted. Such rivers are outstanding examples of our natural heritage. As well, some of these rivers provided a source of food and a means of transportation for native people and early settlers, thereby playing a significant role in the (p.122) exploration, trade, and settlement of our country. These rivers are important elements of Canada's natural and cultural heritage, which should be preserved in an unspoiled state for the benefit of present and future generations.
>
> (Parks Canada 1979, 65)

Parks Canada based its definition of heritage rivers on surveys of "wild rivers" in the Yukon and Pacific Northwest. Thus, heritage rivers were rivers "free of impoundments within designated sectors," having "shorelines essentially natural," waters free of "man-made pollutants," and courses "inaccessible by road except at occasional crossings" with flow rates sufficient for "low intensity recreational activities." Heritage rivers also provided visitors "with a natural experience by preserving the lands seen from the river surface and the shorelines as much as possible in an unaltered state" and ensuring "the ecological integrity of the river" (Parks Canada 1979, 65). That is, for Parks Canada, a heritage river was a river capable of providing authentic performative spaces in which visitors would be able to re-create the experience of actual historical voyageurs, or, alternately, a river sufficiently wild to serve as a substitute for the rivers actually traversed prior to later development that impaired their value.[6]

Significantly, there were no separate criteria for cultural and natural heritage value. The agency's position at the time was that "man and his environment cannot be separated" (Parks

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Canada 1979, 12). Natural heritage sites were simply a special category of human cultural heritage site, ones that recognized "that physiography and climate have been significant factors in Canada's development and history" (Parks Canada 1979, 12). The reasons the agency took this position are understandable. Since heritage value is always a matter of a group's subjective appreciation of past events, persons, or places, *all* heritage value is of fundamentally the same kind, differing only in the kinds of objects to which it attaches. This feature of heritage enterprises explains why debates about which "historical" baseline should be used to guide natural heritage preservation and restoration practices can never be settled by appeal to either scientific or historical fact. Heritage narratives, unlike historical accounts, do not aim to reveal truth of the past. Their purpose is to help us interpret and carry forward legacies we inherit from the past. Consequently, we can never determine the natural heritage value of any particular assemblage of natural species, entities, or processes by appeal to history. The historicity of a particular assemblage is only contingently related to that assemblage's natural heritage value.

(p.123) Equally significant was the absence of any criteria for identifying a river's ecological integrity distinct from those provided for determining its heritage value. Parks Canada's mission in this period was first and foremost heritage preservation. The CHRS program was not a scheme for preserving or restoring the ecological integrity of Canadian rivers per se. It was a scheme for preserving and restoring the rivers that were most symbolic of an officially approved pedagogical narrative of Canadian origins and identity. Consequently, the necessity or importance of recognizing, let alone practicing, a form of stewardship of landscapes not directed to the preservation and interpretation of their heritage assets did not present itself to Parks Canada in this period.

Provincial and territorial officials pushed back against Parks Canada's initial proposal for the CHRS program. Restricting inclusion to rivers inaccessible to roads was not likely to help them promote riparian tourism and recreational industries. Moreover, few rivers in the Atlantic provinces of Nova Scotia, Prince Edward Island, or Newfoundland would qualify, as their long histories of human settlement ensured that adjacent lands were rarely "in an unaltered state" along all or most of

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their lengths. As a result, the official criteria for natural heritage values were substantially revised before the program was launched in 1984. Cultural heritage (rechristened as “human heritage”) and recreational value were split off as separate but equal routes to heritage river status. Impoundments, human alterations to shore lines, accessibility by road, and specific references to the presence of man-made pollutants were no longer specified grounds for disqualification (Canadian Heritage Rivers Task Force 1981, 27–28).

But in practice nothing had changed. Parks Canada continued to identify the integrity of ecological resources it managed with the integrity of their natural heritage assets. When the CHRS program was implemented, Parks Canada, the CHRS board, and their provincial and territorial associates evaluated proposals in terms of the criteria for natural-heritage value specified in the original CHRS proposal, regardless of the category in which a given river was being nominated. Minutes of the meetings at which the ministerial response was discussed indicate that many of the officially excised criteria for natural heritage value had been reintroduced as unstated criteria for environmental “integrity.”

For example, the section of the river below the “impoundment” created by the causeway was excluded from consideration. Even had the impoundment not provided an excuse to exclude the region around the river’s mouth, it might well have been excluded anyway, since in this, the most heavily developed section of the river, neither the shores nor the (p.124) adjacent lands retained a natural appearance. The evaluation of the river’s water quality also employed Parks Canada’s original criteria for natural heritage. The River Task Force was informed that river-bank erosion, the presence of man-made pollutants, and the extirpation of salmon made the Annapolis unacceptable as a heritage river. These were in fact indicators of significant decline in the watershed’s environmental integrity relative to earlier periods. But as noted earlier, the 1984 CHRS integrity guidelines had only specifically required “continuity and/or improvement of the resources upon which ‘value’ to the system has been determined.” They had not required the absence of man-made pollutants or of evidence of

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erosion. Nor had they required the continued existence of all or most of the species historically native to the watershed.

The officials adjudicating the Annapolis River proposal seem to have been as puzzled by the River Task Force's objections to the criteria they imposed as the River Task Force had been to their imposition. To the River Task Force, the imposition of hitherto unstated exclusions detrimental to their proposal seemed arbitrary and unfair, as did the refusal to include sections of the river impacted by impoundments. The latter was particularly prejudicial to their application, as the effect was to drop from consideration the section of the river retaining the greatest number of historic structures associated with the river; the seventeenth-century Scottish earthworks, the reconstructed Habitation, and historic eighteenth- and nineteenth-century buildings. To make matters worse, this also excluded the section where many of the most popular recreational activities were practiced, such as sailboat racing, surfboarding, and hydroplaning. For their part, the officials faced with the Boards of Trade's submission were flummoxed by the River Task Force's suggestion that a river lacking natural heritage values could still possess environmental values worth stewarding. They could not seriously believe that anyone would suppose ecological and natural heritage values were distinct. Campaigns on behalf of rivers like the Annapolis had not been anticipated. (Only after campaigns of this sort were rejected, to the discomfort of all concerned, did Parks Canada and the CHRS Board recognize the need to revise their program requirements.)

The River Task Force concluded, correctly, that meeting the CHRS requirements for ecological integrity was an impossible task. Even had it been feasible, returning the river to a pristine condition without visible human modifications along the shorelines had never been their goal. They did not share Parks Canada's restricted view of what constituted nationally significant heritage—specifically, redolence of the *voyageurs*. (p.125) They wanted to celebrate, not expunge, their riparian landscape's multiple layers of cultural development. Parks Canada had little interest in the watershed's historical associations because the Acadians and their successors had been farmers rather than *voyageurs* and because (thanks to the deportations) the Acadians had not, as a group, played any distinct or special role in the opening of Canada's wilderness interior. Though the officially endorsed heritage narrative of

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the *voyageur* was beginning to be contested, it retained official favor in Ottawa. And on that view, none of the heritage values of the Annapolis River were values warranting substantial investment.

Birth of the Clean Annapolis River Project

Disappointed, the Boards of Trade cut their losses and abandoned further pursuit of CHRS status. Instead, they conducted a series of workshops on the nomination debacle and on the environmental challenges that had been highlighted in the province's rejection of the proposal. As Diane Legard, the Boards of Trades executive manager would later remark, they found that the rejection had a "silver lining" of an unexpected kind:

> It crystallized for many local residents what the scientific community and public health officials already knew—the Annapolis River needed help … This realization has led to a wide spectrum of the community becoming concerned and involved.
>
> (Legard, undated, 2)

Whatever the faults of the process leading to rejection, the provincial officials had not exaggerated the river's water-quality issues. In the summers of 1988 and 1989, the Annapolis River had to be closed to all human and agricultural use because of *E. coli* (*Escherichia coli*) contamination. The losses to the region's agricultural, recreation, and heritage tourism industries were too significant to ignore.

Implementing the CHRS program's actual criteria for environmental integrity was never a serious option. Even if it had been financially feasible, it would never have received public support. Restoring the river and its shores to a "natural" appearance would have meant removing the causeway and tidal power plant at Annapolis Royal, as well as roads, homes, farms, businesses, and whole town sites along the river. It would also have meant relocating or demolishing sites of enormous heritage value for the thousands of people who visit the area annually, not to mention the (p.126) Annapolis Valley residents themselves. The quest to eliminate visible evidence of human intrusion along the river's course

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could even require the destruction of some of the region's most iconic scenery, its apple orchards.

The warning signs that human activity was overwhelming the river's capacity to supply ecosystem services and other resources on which area residents depended, reinforced by the river closures in 1988 and 1989, made stewardship of the river's ecological integrity the River Task Force's chief priority. Through their workshops, they educated the community about the environmental challenges the river faced and engaged community support for projects to restore the ecological values, functions, and services of greatest collective concern. This approach was highly successful, as it encouraged local communities to see themselves as equal stakeholders in the river's future, sharing common interests in protecting and enhancing its water quality, biodiversity, ecosystem services, and the values they represented. The sense of collective responsibility generated wide community support for initiatives the River Task Force proposed. It also prompted invitations from researchers at the Acadia Centre for Estuarine Studies to join in a series of partnerships intended to foster community-based approaches to watershed management, developing tools for educational outreach, and involving citizen-scientists in water-quality monitoring and other activities.[7] The Boards of Trade reconstituted the River Task Force as a separate body, the Clean Annapolis River Project (CARP) to better support these initiatives (Griffith 1990).

Setting achievable goals required gaining a more comprehensive understanding of the chief threats to the river's environmental systems and communities of life. These were identified as including unsustainable exploitation of the river as a freshwater resource, inadequate sewage treatment at many sites along the river's course, deforestation and removal of vegetation along the river's tributaries that encouraged river bank erosion and runoff of farm animal waste into the river, the loss of salt and fresh water marshes that had formerly buffered the river against these and other contaminants, and invasion by exotic species that compromised some local biotic communities.[8] With the help of members of the Acadia Centre for Estuarine Studies and other partners, CARP pursued provincial and federal government

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grants and partnered with municipal, provincial, and federal agencies and nongovernmental organizations, such as Ducks Unlimited, to develop means of restoring the river's water quality and the ecological services it provided.

The resources provided have allowed CARP to collaborate in the engineering of a 75-hectare freshwater marsh to serve Annapolis Royal as (p.127) a tertiary sewage system. Working with thirty-seven local landowners, CARP has helped to restore 630,000 square meters of riparian habitat and has protected a further 570,000 square meters by installing bankside fencing to prevent livestock intrusions and planting trees, shrubs, and stakes to reduce bank erosion. To improve biodiversity of fish species, CARP has assessed culverts throughout the watershed, identifying obstructed or substandard culverts for remediation. It has also participated in the removal of a dam on an important tributary. Salt-marsh restoration projects are underway. A program to provide water-conservation assessments to community members has been launched. Other current projects are focused on protecting endangered turtles and managing invasive species. Because of its effectiveness as a grassroots organization, CARP has served as an influential model for community capacity building around the province. Headway against the Annapolis River's ecological problems is being made. Habitat for wetland species is being restored and some anadromous fish species are returning to the Annapolis River and its tributaries to spawn. While some contaminant levels remain high, the river's ecological integrity is no longer in decline and has in many respects significantly improved.[9]

At the same time that the River Task Force was contemplating its response to the nomination debacle, the CHRS board began to revise its integrity guidelines in light of the lessons it had learned from the program's initial rollout. Released the year after CARP was founded, the guidelines revised the criteria in each nomination category. The new criteria for human heritage no longer exclusively privileged associations with *voyageur* exploration as a qualification for national heritage significance. Thus rivers would no longer be disqualified automatically if they were no longer "wild" or influenced by human development. The appearance of continuity with earlier periods remained crucial; however, human infrastructure or modifications were allowable, so long as they were generally characteristic of the "historic period in which the waterway is

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– of outstanding importance." The revised criteria for environmental integrity now clearly spelled out exclusions previously implicit. Only rivers or sections of rivers that were "unimpaired by impoundments and human land uses" could be considered. Moreover, the use of adjacent lands "must not seriously affect the historical experience offered by the river environment" (Canadian Heritage Rivers Board 1990, 28–-29). Rivers had still to provide suitable performative spaces for visitors to engage in imaginative re-enactments of life in earlier periods, but now no particular period was prioritized.

(p.128) Neither the Boards of Trade nor CARP ever seriously considered reviving their campaign to nominate the Annapolis to the CHRS. The revisions the CHRS adopted were not sufficient to markedly improve the campaign's chances of success. The causeway and tidal power generating station still constituted "impoundments" that were unacceptable to the CHRS board, as were other contemporary uses of adjacent lands.[10] Moreover, the requirement that rivers should exemplify a *single* historical period would have fractured the harmonious convergence of multiple overlapping heritage traditions in which the Annapolis River figured. Because there are no objective measures by which heritage narratives can be ranked or assessed, there would have been no objective basis on which the Boards of Trade could have defended a decision to privilege one over the others. Even the tidal generating station would have had its heritage proponents, as it is the first tidal power station ever built in North America.

But it is instructive to consider the difference it would have made to CARP's activities and initiatives had they chosen otherwise. A number of ecologically important projects that CARP has pursued in its quest to protect and enhance the river's ecological systems might never have been undertaken. For example, CARP might not have elected to invest its limited resources in efforts to increase the efficiency of residential or commercial water consumption, as the inefficiencies had no direct impact on the river's appearance. A later project to improve opportunities for fish passage up the river's tributaries by clearing blocked culverts might still have seemed worthwhile, for the sake of conserving or restoring the river's threatened and extirpated fish. But on reflection, an initiative like this one, which only re-engineers rather than removes human modifications to the adjacent landscape, might have been rejected. Other CARP initiatives might have

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suffered a similar fate. Installing fences along the banks of the river and its tributaries has proved an effective means of keeping livestock and their waste out of rivers and streams. At the same time, it tends to increase rather than decrease visible human intrusion along shore lines. Thus, a proposal to promote fencing along vulnerable stretches of shore line might well have been rejected. The freshwater marsh engineered as a tertiary sewage system for Annapolis is more “natural” looking than the brown site on which it was established, but is still less well suited to restoring “continuity” of ecological systems than restoration of the site’s original salt marsh would have been. So, even though a restored salt marsh would not have been as practical a solution to the town’s waste-water problems, preference would presumably have gone to restoring the lost salt marsh.

(p.129) Instead of developing projects such as these, an organization dedicated to stewarding the watershed’s natural heritage values would presumably have concentrated its efforts on the removal of visible impairments, starting with the causeway and tidal power generating station. Such efforts would almost certainly have been wasted. Due to natural coastal subsidence and rising sea levels, the causeway cannot be removed without potentially catastrophic consequences to the human infrastructure, including heritage sites, along the lower third of the river’s course. The tidal power station could be removed from the causeway. But while the station disturbs the continuity of the river’s appearance with its past, and while its turbines do kill fish, it is of considerable ecological benefit in other respects. Tidal power generation reduces coal usage and so also greenhouse gas and particle emissions. And as it turns out, the power station’s turbines have other beneficial effects on fish and communities of life. Their activity contributes to water mixing above the causeway, counteracting, at least in part, the causeway’s negative effects on the subsurface oxygen levels above it and so improving conditions for aquatic life upstream (Sharpe 2007).

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Conclusion

The object of this case study has not been to argue that ecological stewardship of the sort practiced by CARP, focused on biodiversity and ecosystem services, is inherently superior to natural heritage stewardship. It has been to highlight the ways that environmental and heritage stewardship differ. Particular ecological assemblages of special rarity, uniqueness, beauty, or other significance to a community will often merit the stewardship practices peculiar to heritage stewardship. Sometimes focusing on natural heritage stewardship objectives will prove to be a win-win option, when these preserve particular assemblages and ecosystem services simultaneously. But we cannot assume that this will always be the case. When it is not, we may find too late that our efforts to preserve natural heritage values have had the unintended effect of diverting our attention from significant threats to ecosystem functionality.

We can avoid these kinds of unintended consequences by remembering that ecological stewardship and natural heritage stewardship are different kinds of enterprises, with distinct and different objectives. That they are sometimes complementary should not blind us to their distinctiveness or to the fact that choosing between them is sometimes unavoidable. At the same time, careful attention to their respective objectives can also help us (p.130) to mitigate apparent conflicts between them. Heritage stewardship is more fundamentally committed to preservation than is environmental stewardship. Thus, when environmental stewardship goals require the removal of historical structures or the cessation of historical practices, they may seem incompatible with heritage stewardship. In such cases, it may help to remember that heritage preservation is the preservation of groups' subjective appreciation of their histories, not the preservation of antiques for their own sake. Antique objects and practices are helpful but not essential for enjoyment of heritage values. There *are* other ways of creating suitable performative spaces in which groups can imaginatively engage with significant events, persons, and places from the past. Re-creations, reconstructions, and memorial markers can and routinely do serve the objectives of heritage stewardship quite as well as historical relicts.

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We should not forget that while environmental stewardship is informed by the past, it is not beholden to it. The goal of environmental stewardship is to manage human behavior in order to restore or maintain the integrity of environmental systems and their services to human and other communities of life. Protection and restoration of “antique” natural environmental systems, components, and processes are often effective means of maintaining the functionality of environmental systems. But they may not be the best or only means available. Sometimes the goals of environmental stewardship can be better served by introducing new elements into a landscape or system, for example, by relocating threatened species outside their historical range to maintain biodiversity, creating grass lands or forests where they did not previously exist to compensate for losses to environmental systems elsewhere, or engineering a freshwater marsh where a salt marsh once existed to improve water-quality management, as was done in Annapolis Royal. If we cannot guarantee that all conflicts between environmental and heritage stewardship goals for the same landscapes will be resolvable without significant loss to either, the flexible relationship of each practice to the landscape’s historical past suggests that with thoughtful management, resolutions will be possible more often than not.

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Notes

References

Bibliography references:

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Annapolis Valley Affiliated Boards of Trade. 1987. “Annapolis River News.” *AVABT Action* 10 (1): 7.

Annapolis Valley Affiliated Boards of Trade. 1986. “The Annapolis River Nomination Document: Canadian Heritage Rivers System.” Unpublished.

Annapolis Valley Affiliated Boards of Trade. 1985. *Canoe Annapolis River*. Annapolis and Kings Counties, Nova Scotia: Annapolis Valley Affiliated Boards of Trade.

(p.132) Campbell, Claire. 2008. “ ‘It Was Canadian, Then, Typically Canadian’: Revisiting Wilderness at Historic Sites.” *British Journal of Canadian Studies* 21:15–34.

Canadian Heritage Rivers Board. 1990. *Canadian Heritage Rivers System: Guidelines*. Ottawa, Ontario: Canadian Heritage River Board Secretariat.

Canadian Heritage Rivers Task Force. 1981. “A Canadian Heritage Rivers System: A Proposal Prepared by the Canadian Heritage Rivers Task Force/Final Report.” Ottawa, Ontario: Parks Canada.

Daborn, Graham R., Robert G. Williams, J. Sherman Boates, and Peter S. Smith. 1979. “Limnology of the Annapolis River and Estuary: I. Physical and Chemical Features.” *Proceedings of the Nova Scotian Institute of Science* 29 (2): 153–172.

Dadswell, Michael J., Roger A. Rulifson, and Graham R. Daborn. 1986. “Potential Impact of Large-Scale Tidal Power Developments in the Upper Bay of Fundy on Fisheries Resources of the Northwest Atlantic.” *Fisheries* 11 (4): 26–35.

Dadswell, M. J., and R. A. Rulifson. 1994. “Macrotidal Estuaries: A Region of Collision between Migratory Marine Animals and Tidal Power Development.” *Biological Journal of the Linnean Society* 51 (2): 93–113.

Dunn, Brenda. 2004. *A History of Port Royal, Annapolis Royal: 1605–1800*. Halifax, NS: Nimbus Publishing.

Griffith, Shea. 1990. “Proposal to the Annapolis County Council.” Unpublished.

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Kaufman, Eric. 1998. “ ‘Naturalizing the Nation’: The Rise of Naturalistic Nationalism in the United States and Canada.” *Comparative Studies in Society and History* 40 (4): 666–695.

Legard, Dianne Hankinson. 1986. “The Annapolis River: A True Heritage River.” Unpublished presentation.

Legard, Dianne Hankinson. Undated. Unpublished presentation.

Longfellow, Henry Wadsworth. 2004. *Evangeline: A Tale of Acadie*. Fredericton, New Brunswick: Goose Lane.

Lowenthal, David. 1998. *The Heritage Crusade and the Spoils of History*. Cambridge: Cambridge University Press.

McKay, Ian, and Robin Bates. 2010. *In the Province of History: The Making of the Public Past in Twentieth Century Nova Scotia*. Montreal and Kingston: McGill-Queen’s University Press.

Mortimer-Sandilands, Catriona. 2009. “The Cultural Politics of Ecological Integrity: Nature and Nation in Canada’s National Parks, 1885-2000.” *International Journal of Canadian Studies* 39–40: 161–189.

Parks Canada. 1979. *Parks Canada Policy*. Ottawa, Ontario: Parks Canada.

Parks Canada. 1984. *Canadian Heritage Rivers System: Objectives, Principles and Procedures*. Ottawa, Ontario: Parks Canada.

Sharpe, Andy. 2007. “Report on the Investigation of Low Dissolved Oxygen Levels in the Annapolis River Estuary.” Annapolis Royal, NS: Clean Annapolis River Project.

Welchman, Jennifer. 2012. “A Defense of Environmental Stewardship.” *Environmental Values* 21: 297–316.

Notes:

(1) Throughout this essay I shall concentrate on the CHRS’s original 1984 program guidelines. The guidelines have since been reworked several times and now permit a much wider variety of rivers to qualify for heritage status.

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(2) By this time, hydroelectricity and flood-control dams had also been introduced to most major tributaries of the Annapolis River and Basin.

(3) Later research confirmed early findings of high mortality rates for fish passing through the power stations' turbines. See Dadswell and Rulifson (1994).

(4) The river was "discovered" by France in 1603, appearing as the Rivière du Dauphin on Samuel de Champlain's 1609 map of the area.

(5) The Historical Sites and Monuments Board of Canada was dominated by adherents of the Laurentian School of historians, who credited traders and trading companies with opening the Canadian interior and thus laying the groundwork for Canada's transcontinental nationhood. Canadian's distinctive "nation character" was also held to be traceable to the pattern of life established through wilderness exploration. Parks Canada took advice from the Board. See Campbell (2008); Kaufmann (1998); and Mortimer-Sandilands (2009).

(6) The final 1981 proposal for the CHRS program was even more specific about the most significant human heritage roles of Canada's rivers; provision of food and transport for aboriginal people and facilitation of European exploration and settlement "through the vast interior of the continent" as "with the establishment of the fur trade, these rivers became the country's major routes of commerce with trading posts and settlements established along their banks." (Canadian Heritage Rivers Task Force 1981, 7.)

(7) The first invitation was to join the Atlantic Region Estuaries Program (AREP), which led to a further invitation to continue participate in the Atlantic Coastal Action Program (ACAP), the successor to the AREP.

(8) Stephen Hawbolt, personal communication, June 12, 2013.

(9) Reports by and information about CARP may be found on its home page. http://www.annapolisriver.ca/.

(10.) The same language appears in a draft revision of the guidelines currently under discussion. See http://www.chrs.ca/en/docs/PPOG_April2012.pdf.

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