CONVERGENCE AND COLLABORATION: INTEGRATING CULTURAL AND NATURAL RESOURCE MANAGEMENT

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ABSTRACT

Protected heritage area management is challenged by conflicting priorities perpetuated by the real and perceived dichotomy between cultural and natural resource management, their practitioners, their disciplines, and their values. Current guidelines promote integrating cultural and natural resource management to ensure holistic management of all values within a protected heritage area. This paper uses the management of the Cave and Basin National Historic Site to illustrate challenges in protecting both historic and natural resources. A qualitative inductive study included analysis of interview and focus group data for the site and similar protected heritage areas. The gap between integrative policies and the tendency for uni-disciplinary approaches to the practice of managing protected heritage areas is investigated. Five barriers to integration, such as lack of awareness, and five methods for progress, including facilitated inclusion, are examined. The author proposes collaborative, sustainable, values-based practices for the successful integration of cultural and natural resource management.
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LIST OF ACRONYMS

DOJ – Department of Justice

ICOMOS – International Council on Monuments and Sites

IUCN – International Union for Conservation of Nature

NHS – National Historic Site

NP – National Park

PC – Parks Canada or Parks Canada Agency

UNESCO – United Nations Educational, Scientific and Cultural Organization
CHAPTER ONE: INTRODUCTION

Within the realm of protected heritage area management, disciplines related to cultural resource protection and natural resource protection have frequently functioned in parallel. Canadian national parks were for protecting and presenting nature; Canadian National historic sites were for protecting and presenting history. A dichotomy of culture and nature has often permeated the management of protected heritage areas with little or no acknowledgement or respect for differing values. This thesis explores this dichotomy, with the Cave and Basin National Historic Site of Canada (Cave and Basin NHS) as an illustrative example.

Recent trends have encouraged holistic approaches to managing protected heritage areas. Management practices have evolved to include the integration of disciplines from cultural resource management and natural resource management (Parks Canada [PC], 2007a). A values based management approach for a protected heritage area attempts to include all values found in, and under, the landscape, regardless of its association as a cultural resource or a natural resource. If a feature is determined to have value it is to be protected and managed (2007a).

Although the Cave and Basin NHS is a relatively small national historic site, it is an example of a complex protected heritage area that includes cultural and natural resource values. Successful management of these values requires an integrated approach.

A Notion of “And”

Several years ago I sat in a workshop on management planning indicators. The discussions centred on ecological and environmental issues. I was one of the few participants without a science background and noticed a pattern in the presentations. As the power point slides scrolled by, I noted that most depicted statistical data and charts. I mused to myself that the “science-types” could only communicate with flow charts. I reflected on how this contrasted
with my history and cultural resource management background of slides with narrative and images. Not long after the workshop, I found myself trying to explain to a co-worker the different aspects of cultural resource management. I described to them why this mattered at the national historic site I managed – a national historic site located within a national park. They could not understand why I was making such a fuss about historic resources when we were in, from their perspective, a national park and environmental concerns were the priority. I was struck by the lack of awareness of cultural resource management and values of historic resources, even though we both worked for the Parks Canada Agency (Parks Canada). I found myself at a loss with someone who just did not seem to “get it”. I soon realized that they thought the same of me!

The inspiration to bridge this apparent division between cultural resource management and natural resource management came after a senior manager challenged our team to determine solutions that would not be detrimental to the site’s resources – regardless of type. We had recently reached an impasse, pitting the protection of cultural resources against the protection of natural resources. We were encouraged to go back to the roots of the organization and bring the “and” of the Parks Canada mandate to the forefront of our site management decisions. Inclusion of both cultural resource management and natural resource management is integral in the mandate’s statement to “ensure the ecological and commemorative integrity of these places” (PC, 2008b).

Disagreements over priorities and challenges to protecting both cultural resources and natural resources in protected heritage areas are not unique to Canadian national historic sites or national parks. Various barriers inhibit a holistic, integrated approach to protected heritage area management in other countries. However, examples exist where integrated management
approaches are successful. Almost more importantly, there are examples illustrating the benefits of integration and recommendations describing how to integrate cultural resource management and natural resource management for a protected heritage area. Building on these examples is part of the research of this project.

Parks Canada’s management of its protected heritage areas, and in particular the management of the Cave and Basin NHS, provides the basis for this research study of such challenges and provides possible insight for taking current best practices in protected heritage area management into the future.

Figure 1: Early Cave and Basin postcards: the Cave, Basin, and Bathing Pavilion. The first national parks were important to opening western Canada to tourism, settlement, and the beginning of a national system of protected heritage areas (Byron Harmon, Banff, Canada, n.d.; J. Howard A. Chapman, Victoria, BC, n.d.; Associated Screen News Limited, Montreal, n.d. – Author’s Collection).
Parks Canada

The authors of Parks Canada’s mandate envisioned an integrated approach to presenting and protecting historic and natural resources within Parks Canada’s system of nationally significant protected areas. Challenges arise when there is an apparent conflict between the various layers of value associated with these special places (e.g., natural river erosion may threaten archaeological resources or historic buildings may impede animal movement). Parks Canada managers must manage a designated protected heritage area for both its historic and natural values. The challenges are further complicated when there is the requirement to incorporate external legislation or stakeholder concerns that may or may not share an interdisciplinary approach.

Cave and Basin National Historic Site

The Cave and Basin NHS provides an interesting example of the integrated Parks Canada mandate in action. Located within Banff National Park (Banff NP), the national historic site commemorates the “birthplace of Canada’s national parks” (PC, 1999, p. 6). The site tells a story that is nationally significant to Canada and that is also important to Parks Canada itself; the Cave and Basin NHS is essentially where the federal system of protected heritage areas started. The present day management, protection, and presentation of its historic and natural resources are a result of the evolution of the Parks Canada mandate. Cultural resources, including extant archaeological resources, cultural landscape features, and the historic bathing pavilion are found within the site’s designated place (PC, 2007a). The site’s designated place (see Figure 2) also includes various natural resources, such as thermal springs which are habitat for the Banff Spring Snail, an endemic, endangered species (Lepitzki & Pacas, 2007; PC, 2007a). Integral to understanding the complexities of this site is the fact that natural features
such as the cave, the basin, and the thermal water flowing within the site have both cultural and natural value (PC, 1999).

Important milestones have been achieved with the management of the Cave and Basin NHS over the last fifteen years. In the late 1990s, two parallel processes were unfolding and about to converge. While Parks Canada managers were writing the site’s commemorative

![Cave and Basin NHSC Current Situation](image)

Figure 2: Cave and Basin National Historic Site.

integrity statement, the significance and precarious existence of the tiny mollusc inhabiting the site’s thermal springs was also being recognized. Consequently, a comprehensive document was produced that articulated the various values, cultural and natural, within the site’s designated place (PC, 1999). In 1997, the Committee on the Status of Endangered Wildlife in Canada designated the Banff Springs Snail as “threatened” and later upgraded the species to “endangered” in 2000 (Lepitzki & Pacas, 2007). A few years into the new millennium, a number of threats to the site’s historic and natural resources challenged managers to acknowledge and reconcile the protection of both types of resources in a way that did not impair one or the other. After many meetings and many heated discussions, two significant management documents were produced in 2007 – the Cave and Basin NHS Management Plan (PC, 1999) and the Recovery Strategy and Action Plan for the Banff Springs Snail (Lepitzki & Pacas, 2007). Each document reflects a commitment to protect and present the cultural and natural values within the Cave and Basin NHS. The documents’ identification of the values and the clearly stated actions to manage them belie the tremendous effort it took for the managers and stakeholders to work through their differences and reach consensus. Could this have been avoided? Are there better ways to approach the integration of values within a protected heritage area?

Research Objectives

The objective of this research is to investigate Parks Canada’s management of the Cave and Basin NHS and propose management approaches that will facilitate the successful integration of cultural and natural resource management practices, ensuring the long-term protection of all the values found within this nationally significant protected heritage area. This research will have the potential to provide methods that are transferable, with some
customization, to protected heritage areas within the Parks Canada system and to other external protected heritage area management jurisdictions.

Research questions.

How can goals for cultural and natural resource management be integrated into the management of a protected heritage area such as a national historic site or national park?

- which on-the-ground actions are being implemented to integrate cultural and natural values at the Cave and Basin NHS? Which actions are successful and which actions are not?

- are there aspects of the management framework that hinder the integration of cultural and natural resource protection?

- are management approaches used in other protected areas transferable to the Cave and Basin NHS?
CHAPTER TWO: LITERATURE REVIEW

This chapter provides a review of current Cave and Basin NHS management documents, followed by an overview of related protected heritage area literature, and concludes with examples of integrated approaches and potential means for integrated management.

Parks Canada Context

Internal legislation, policies, and guidelines inform and assist managers with the protection of Parks Canada’s protected heritage areas. Each document affects the Cave and Basin NHS directly or indirectly.

The foundation for the management of Parks Canada’s system of protected heritage areas – national parks, national historic sites, and national marine conservation areas – is the Parks Canada (2008b) mandate:

On behalf of the people of Canada, we protect and present nationally significant examples of Canada’s natural and cultural heritage and foster public understanding, appreciation and enjoyment in ways that ensure their ecological and commemorative integrity for present and future generations (p. 5).

The mandate is broad and often referred to as a dual mandate, suggesting that the goals of preservation and human use are parallel. With reference to national parks, the duality has been identified by Fluker (2010) as a “dual use-preservation mandate” (p. 34) and slightly different by Hart (2010), as the “so called double-mandate” (p. 85) where early development in national parks appeared at odds with preservation. The Panel on the Ecological Integrity of National Parks (PC, 2000) emphatically stated, “there is no dual mandate but rather one single mandate” (p. 2-5), noting that visitor use has been an integral part of the mandate (p. 2-5). The distinction of a single mandate is important. Parks Canada’s national parks and national historic
sites are for people and managed for the long-term in a way that protects their values – without being set aside as bio-reserves or stored as artefacts.

Even though the Parks Canada Agency Act confirms the single Parks Canada mandate, the perceived duality persists and often extends to a separation of cultural resource conservation and natural resource conservation. There tends to be a focus on single phrases in the Parks Canada Agency Act (Department of Justice [DOJ], 1989), such as “maintain or restore the ecological integrity of national parks” (p. 1) and “ensure the commemorative integrity of national historic sites” (p. 1), rather than other more inclusive phrases of “protect nationally significant examples of Canada’s cultural and natural heritage” (p. 1).

National parks and ecological integrity.

The intentional or unintentional separation of natural resource conservation from cultural resource conservation was furthered by revised national park legislation. The current Canada National Park Act (DOJ, 2000) states that:

Maintenance or restoration of ecological integrity, through the protection of natural resources and natural processes, shall be the first priority of the Minister when considering all aspects of the management of parks (p. 8).

and provides a definition:

“ecological integrity” means, with respect to a park, a condition that is determined to be characteristic of its natural region and likely to persist, including abiotic components and the composition and abundance of native species and biological communities, rates of change and supporting processes (p. 1).

The definition does not mention people or other values. When emphasized with words such as first and priority, ecological integrity appears exclusive and to have importance over other
aspects of legislation and policies (Fluker, 2010). This is understandable if aspects of legislation or policies are applied in isolation or only in part. However, the example of the Cave and Basin NHS being located within Banff NP demonstrates that Parks Canada’s mandate must be applied as a whole and that relevant legislation and policies must be applied with comparable rigor.

*National historic sites and commemorative integrity.*

Unlike the definition of ecological integrity for national parks, which is specific to natural resources, integration is more apparent in Parks Canada’s (2007a) definition of commemorative integrity for national historic sites:

Commemorative Integrity reflects the health and wholeness of a site. A national historic site possesses commemorative integrity when:

- the resources directly related to the reasons for designation as a national historic site are not impaired or under threat;
- the reasons for designation as a national historic site are effectively communicated to the public; and
- all decisions and actions respect the site’s heritage values (including those not related to the reasons for designation) (p. 4).

Similar to a fire triangle, all three elements are required to achieve commemorative integrity; they are not hierarchical. In more simple terms, one can think of the elements as protection, presentation, and management. The third element refers specifically to an integrated, holistic approach to national historic site management. “Heritage values” in Parks Canada-speak refers to both historic and natural values and that these values are in addition to the values that are directly related to the reasons for the site’s designation. This point also strives to ensure that “all decisions and actions” that direct activities for Parks Canada staff, stakeholders, partners,
contractors, etc. “respect” all the values within a site. This is best achieved when parties acknowledge and understand all the values within the site. It becomes challenging when people involved do not appreciate values outside of their interests or see some values as more important than others.

The key document in articulating values for a national historic site is a commemorative integrity statement. Parks Canada (2008a) prepares commemorative integrity statements to identify a national historic site’s “resources and their values, the reasons for designation, and outlines objectives for the management of the site (p. 85).

The Cave and Basin NHS Commemorative Integrity Statement (PC, 1999) describes the site’s values within its designated place and demonstrates the integrated and holistic approach of Parks Canada’s concept of commemorative integrity. Value is applied not only to archaeological and historic built features, but also to what may be considered more natural features – the cave, the basin, and the thermal springs themselves (p. 6). Understanding this requires delving into Parks Canada’s Cultural Resource Management Policy (PC, 1994), which states:

A cultural resource that derives its historic value from the interaction of nature and human activities will be valued for both its cultural and natural qualities (p. 103).

The policy also guides managers to value “natural ecosystem features” that “form an integral part of the history of the landscape” (p. 103). Consequently, the site’s commemorative integrity statement identifies significant natural features including the Banff Springs Snail and its habitat, the Cave and Basin Marsh, and the wildlife corridor (PC, 1999). It is interesting to note that the Banff Spring Snail is protected within the Cave and Basin NHS, not because the site is located within a national park, but rather because of the national historic site’s commemorative integrity and species at risk requirements.
Parks Canada’s Cultural Resource Management Policy (PC, 1994) applies to the entire system of protected heritage areas. It can be frustrating to apply because as a policy it provides guidance rather than specifics on “how”. The Standards and Guidelines for the Conservation of Historic Places in Canada (PC, 2003) provides the next step for managers to get to the “how” of an appropriate cultural resource management intervention. An integrated approach is endorsed in the document. “Environmental considerations” (s. 4, p. 7) are identified and the need to balance historic values with environmental values is stressed.

As an internal management tool, a commemorative integrity statement can be a confusing document that requires our understanding of some nuances and context. For example, the commemorative integrity statement is a values statement and not legislation per se, but ensuring commemorative integrity of a national historic site is a requirement of the Parks Canada Agency Act (DOJ, 1989). An approved commemorative integrity statement is designed to last approximately twenty years; amendments can be made, usually having more to do with reasons for designation rather than the addition of values (PC, 2002). A national historic site may have additional values identified in related documents, such as the site’s management plan.

Another example is the confusion created when certain site values are referred to as “Level 1” or “Level 2” suggesting that one resource is of higher value (PC, 1994, p. 107). The subtlety here is that the terms are associative rather than hierarchical. A Level 1 cultural resource means that it relates directly to the reasons for national historic significance (PC, 1994). The Banff Springs Snail has nothing to do with the Cave and Basin NHS’s reasons for designation, but is still valued for other equally important reasons.
Managing natural values.

The importance of the Banff Springs Snail (see Figure 3) as a valued natural resource, inhabiting both Banff NP and the Cave and Basin NHS, is described in the Recovery Strategy and Action Plan for the Banff Springs Snail (Lepitzki & Pacas, 2007). This was the first Species at Risk Act recovery strategy in Canada and identifies actions required to protect the species and guide its recovery (p. vi-vii). Primarily a science based document, it was written with input from a multidisciplinary team and emphasizes that “recovery can only be achieved if both Ecological and Commemorative Integrity are fully integrated” (p. vii). The strategy explains the significance of the Cave and Basin NHS and that “eliminating public access for the purpose of snail protection is not an option” (p. 19). Performance measures include the need to respect the site’s commemorative integrity (p. 49). The document refers to the “juxtaposition” (p. v) of the snail’s habitat within Banff NP and the Cave and Basin NHS. While this word is correctly used, it can also imply a negative context and contrast with the desire for an integrated management approach.

Figure 3: The Banff Springs Snail lives within the historic environs of the Cave and Basin National Historic Site and is a species at risk – no larger than an apple seed and more endangered than grizzly bears in Banff National Park (Author's Photograph).
The strategy details actions to achieve recovery goals; however, the actions tend to be focused on their application at the Cave and Basin NHS, rather than the ‘how’ of integration to ensure that historic values can also be maintained. References to additional information on the site’s historic values or other management tools, such as Parks Canada’s Cultural Resource Management Policy (PC, 1994), could aid in directing managers to integrated solutions.

The framework for the Species at Risk Act Policies (Environment Canada, 2009) does not go much further than stating that “socio-economic considerations will be integrated during the process” (p. 30) and that an environmental assessment is usually required (p. 34). Historic values are not specifically mentioned, which is odd since this document was produced with Parks Canada input and after the Banff Springs Snail strategy (Lepitzki & Pacas, 2007). It was also written after the joint Parks Canada and Canada Parks Council’s Principles and Guidelines for Ecological Restoration (2007).

The Principles and Guidelines for Ecological Restoration document was prepared by a multidisciplinary team that recognized the “need to integrate considerations relevant to the protection of cultural heritage” (p.7). It advises that the document does not address cultural resource management in detail and guides managers to seek additional input. It suggests that the Standards and Guidelines for the Conservation of Historic Places in Canada (PC, 2003) be “a key document that provides guidance for the conservation of cultural heritage resources” (p. 7).

An environmental assessment is usually triggered by activities planned within a protected heritage area. To meet its mandate, Parks Canada has incorporated into the legislated requirements of the Canadian Environmental Assessment Act the requirement to protect cultural resources “regardless of whether there is a legal requirement to consider effects on cultural resources” (PC, 2007b, p. 1).
Management plans.

Parks Canada’s management plans for its protected heritage areas puts legislation and policy into practice and integration helps guide the development of these plans (PC, 2007). Essentially, the Parks Canada mandate includes three elements – protection, visitor experience, and education (PC, 2008a). Acknowledging the complexities of implementing its mandate, Parks Canada (2008a) requires an “integrated approach” (p. 1) in developing management plans for its protected heritage areas. The “mandate describes what [Parks Canada] does” and “integration describes how the mandate is carried out” (p. 5). To achieve integration, Parks Canada’s management plan guidelines encourage a holistic approach to issues (PC, 2008a).

The Cave and Basin NHS management plan (PC, 2007a) sets out an integrated and holistic vision of the site’s future that includes ensuring the protection of its historic and natural values (p. 58). The plan describes the inherent interaction of the site’s historic and natural values and provides actions necessary to ensure their protection and appreciation (p. 62). These actions are based on substance. The management planning process requires information from various evaluations, significant input from internal and external consultation, and the creation of a multidisciplinary team to prepare the plan (p. 6). The devil is always in the details. The plan’s actions, while appropriate, are broadly stated and only form the start point for implementation.

With the basis of legislation, policies, and management tools, Parks Canada looks well situated to ensure that its protected heritage areas are managed in a manner that integrates their historic and natural values. However, a look at related literature outside of Parks Canada illustrates why implementing these actions can be so very challenging.
The Dichotomy

Protected heritage area management reveals a dichotomy between its approach to cultural resource management and natural resource management. The idea of integration is a relatively recent shift in thinking.

The evolution of protected heritage area management has been marked by a “rift” (Harmon, 2007, p. 380), a “philosophical chasm” (Conrad, 2001, p. 9), and even “envy and rivalry” (Lowenthal, 2005, p. 81) between those who manage cultural resources and those who manage natural resources. Melnick (1996) describes the dichotomy as one of extremes with an ecological view of “wilderness and nature ... free from human intervention” at one end of the spectrum and at the other end, an anthropocentric view of culture described as intentionally made by humans “and set apart from and above the naked wilderness” (p. 28). Early views of wilderness did not always link people to the landscape (Phillips, 1998). He summarizes that:

the separation of culture and nature – of people from the environment which surrounds them – which has been a feature of western attitudes and education over the centuries, has blinded us to many of the interactive associations which exist between the world of nature and the world of culture” (p. 36).

Soon after the creation of Yellowstone National Park in 1872 and Banff National Park in 1885, ideas of protecting nature from the negative impacts of human actions began to reinforce the separation (Lowenthal, 2005). In the 20th century, the environmental movement used our understanding of ecology to illustrate the precariousness of nature as a result of human activities (Phillips, 1998).

Recent holistic views of humans as part of the ecosystem suggest that our understanding of protected heritage area management has been subject to a “false dichotomy” (Bridgewater,
Arico, & Scott, 2007, p. 406). Hubbard, Legg, Hubbard, and Moos (2007) also suggest that a “false dichotomy” has existed within United States national parks because their “natural or cultural” parks usually contain both natural and cultural resources (p. 94-95). This questioning of the notion of the dichotomy is a newer concept in protected heritage area management. There are many reasons why it has been difficult to integrate cultural and natural resource management and why the dichotomy continues to persist.

**Barriers to Integration**

Fry (2004) observes fewer barriers between the integration of cultural and natural resource management at the “theoretical and policy levels” and sees “site management where nature and culture collide”. He suggests that the “management needs of cultural heritage are not the same as those of natural heritage” (p. 78).

Barriers between the disciplines of cultural resource management and natural resource management can be as basic as lacking the understanding or appreciation of why a resource has value to a certain discipline (Slaiby & Mitchell, 2003). Toothman (1987) suggests that this can also be attributed to a “lack of interest” that can lead to projects being implemented “without an understanding of their impacts on [other] resources” (p. 69). Writing from the perspective of an under appreciation for cultural resources, Toothman (1987) also suggests that “tension and mistrust” (p. 70) can be created when a project is delayed to comply with cultural resource management, further “reinforcing negative attitudes toward cultural resources” (p. 69).

Lowenthal (2005) presents a harsher view, where “scientific experts continue to view nature as superior to culture” (p. 89). This is supported by Hubbard et al. (2007) with the sarcastic observation that cultural resource management disciplines are associated with the “humanities (cultural sciences), while natural resource management with earth and life sciences,
sometimes with the sneering insinuation that the earth and life sciences are *real science*” (p. 98). Such approaches have reinforced the desire to preserve wilderness as “pristine” (Lowenthal, 2005, p. 89) or return an area to an “original state” (DiSano & Styles, n.d., p. 8) and that this was “interpreted by some natural area managers as a mandate to destroy the shelters, cabins, and other artefacts found in such areas” (Toothman, 1987, p. 69). Deciding to choose the pristine or the original state often “had a bias toward restoring ‘nature’ as a presettlement or prehuman condition” which resulted in critiques that “recognized this bias, realizing that ‘nature’ is actually a cultural term” (Hohmann, 2008, p. 126). Harmon (2007) contributes to the critique and points out that almost no place on earth has escaped human impact and that the bias perspective has generated “a theoretical assault on the claimed objectivity and implied supremacy of Western scientific ideals” (p. 381).

The problem persists because people from their respective fields “have different origins” (Hohmann, 2008, p. 123) and “don’t think alike” (Conrad, 2001, p. 12) because of “differences in professional training, particularly academic training” (Hubbard et al., 2007, p. 97). Toothman (1987) warns that these “professional interests and philosophies may pose inherent conflicts” (p. 69). Coming from different backgrounds and perspectives invariably leads to a “miscommunication between value systems” (Hay-Edie, 2003, p. 100). It is difficult to understand another discipline’s values when one cannot begin to think of appreciating that someone else may value something they themselves cannot.

Talking amongst each other would seem to be a simple solution; however, communication between the disciplines and professions can be surprisingly difficult. Overcoming barriers through dialogue is a challenge because the differences between cultural and natural resource management are “so deeply ingrained in our everyday language that
anyone trying to work around that dichotomy sounds at best idiosyncratic and at worst mystical” (Ingerson, 1994, p. 44). Thomas, Borjes, & Fenton-Hathaway (2004) explain that “the most prevalent cause for misunderstanding is a difference in language” and that definitions “are not clearly shared across discipline lines” (p. 81). Hubbard et al. (2007) add that some “terms and concepts” may even “have different connotations among disciplines” (p. 97-98). Although the word protection is common to both areas, natural resource protection can mean that processes and growth can continue, while cultural resource protection usually means impeding or slowing down processes that contribute to the deterioration of a historic resource (Lowenthal, 2005).

Further complicating the divide can be the structure within which the disciplines learn, conduct research, or work. Conrad (2001) proposes that this is “because academic institutions have been increasingly compartmentalized during the past century” (p. 15). The silo is reinforced once the person enters the work force. Hubbard et al. (2007) provide examples from the United States National Park Service where the 1980s “agency culture” encouraged “discipline specialization” and changed the makeup of the workforce that had previously been “generalist park staff” (p. 96). The specialization tended to be “dominated by natural resource experts, whereas cultural resources [were] lumped in” with other functions (p. 97). Funding allocations and coping with shrinking budgets tend to make managers competitive and less apt to look beyond their own priorities. A less holistic approach to protected heritage area management has created competition for funding and circumstances where preferential decisions are made (Toothman, 1996).

Integration in Action

The variety of obstacles to integrating cultural and natural resource management gives the impression that managing protected heritage areas remains segregated by resource type and
by uni-disciplinary approaches. In what appears to be from 2001, DiSano & Stiles (n.d.) could only find “four resources directly pertaining to the issue” (p. 1). It seems that others have shared the concern. Over the past decade integration appears as a growing trend in the literature and is now a common consideration in protected heritage area management. As a result, literature on the topic is more readily available and becoming increasingly accessible via electronic formats.

A significant convergence of cultural and natural resource management occurred with the development of the concept of cultural landscapes. Melnick (1996) identifies that the relationship between cultural and natural resource management is reinforced through “landscape … as the integrating force for nature and culture” and a way “to move beyond the staked positions at extremes” (p. 39). He suggests an “inclusive view” (p. 38) that is more complex and the “need to engage in non-linear and cyclical modes of thinking about nature, culture, and landscape (p. 39). He also proposes that managers appreciate the “complex construction of overlapping layers” in a landscape as a way to look for “commonalities and potentials” (p. 29). Twelve years later, Melnick (2008) evaluates the progress of cultural landscape management and, although he does not think “we are there yet”, he is “encouraged that we are well on our way” (p. 208). He still observes the existence of the nature-culture dichotomy and emphasizes that “the cultural landscape as an ideal can serve as a unifying concept” (p. 206).

Interest in cultural landscapes for protecting multiple values, remarks Phillips (1998) from a natural resource perspective, has increased for “those concerned with the conservation of biodiversity” (p. 36); conversely, from the “cultural perspective … the notions of the nature/culture split is outmoded” (p. 28). He describes how the United Nations Educational, Scientific and Cultural Organization (UNESCO) adoption of cultural landscapes in its 1972
World Heritage Convention requires collaboration between the International Union for Conservation of Nature (IUCN) and the International Council on Monuments and Sites (ICOMOS) (p. 29). Dailoo and Pannekoek (2008) acknowledge the strides that UNESCO has made with cultural landscape designations and lament that not enough countries are adopting the approach (p. 42). They advocate that the holistic approach of cultural landscapes “should result in better planning, management, and conservation practices that consider multiple values of all heritage properties” (p. 44).

This way of thinking is not new. Powell (1999) notes that for a very long time “indigenous communities have [had] a holistic view of their environment and do not separate cultural, environmental, social, or economic issues” (p. 64). Using examples from Australia, she suggests that the attention to cultural landscapes in protected heritage area management “have precursors in indigenous concepts of cultural heritage” (p. 50). Indigenous people “view cultural, natural, and spiritual values in places as inseparable and in balance” (Dailoo & Pannekoek, p. 30).

Mitchell and Buggey (2000) explain that a “cultural landscape perspective explicitly recognizes the history of a place and its cultural traditions in addition to its ecological value” and “this approach recognizes the multiple values of places with a complex of natural, historic, and cultural resources” (p. 45). They identify opportunities for collaboration between natural resource preservation and cultural resource conservation. The “importance of working with local people and their cultural traditions in developing nature conservation programs” is as important as “the recognition of cultural landscapes is representative of the broadening definition and scope of cultural heritage” (p. 42).
Longstreth (2008) points out that the concept of cultural landscape “remains misunderstood or marginalized” (p. 1). He recommends that cultural landscapes be used as “a method of considering, analyzing, and evaluating places” (p. 1) as well as a way to describe their landscape features. Not only does the cultural landscape approach demand a broad range of professional expertise, it also requires the participants to be inclusive and work with others “who have different skills and, perhaps, different concerns and priorities” (p. 2).

Hohmann (2008) raises concern that ecological values have not been integrated enough into landscape preservation and suggests that historic appearance has been “overemphasized” (p. 123). As cited before, she is equally critical of the potential natural resource management “bias toward restoring “nature” [to] presettlement or prehuman conditions (p. 126). Approaches to cultural landscape management should acknowledge the variety of values, similar to definitions of sustainability, and ensure that historic values, ecological values, and economic values are examined together (p. 126-127).

Negotiation, Convergence, and Collaboration

It is not surprising with so many challenges to integrating cultural and natural resource management that Toothman (1996) quips that practitioners “require the skills of a diplomat, evangelist, educator, and philosopher” (p. 76).

Dorochoff (2007) introduces negotiation as a skill required by cultural resource managers because they “typically negotiate with others in a number of very different contexts, working with people from a wide variety of backgrounds and professions (p. 11). He identifies communication and appreciating core values as laying the groundwork for collaboration. He cautions that collaboration cannot be forced, particularly between strongly held positions that are often accompanied by equally strong emotions (p. 49). Identifying shared goals, reassessing
goals, and adjusting objectives lends itself to a more integrated approach (p. 56). Dorochoff provides guidance that can be applied to the “how” of integrating cultural and natural resource management, but is useful when there are already two sides. Establishing a purer holistic approach requires bridging a divide, preventing it from interfering in decision-making, or at least prevents it from becoming larger than it may already be.

Challenging anyone in a leadership position to go to a level beyond competent management, Gerzon (2006) suggests that they take on the role of “mediator” to “act on behalf of the whole, not just a part”, “think systemically”, and build “bridges across the dividing lines” (p. 50). He is not critical of good managers; rather, he identifies their limitations such as a narrow focus on their own department or interests that may not include the broader goals of an organization (p. 33). This type of critical thinking is transferable to a more integrated approach to protected heritage area management.

Approaches to sustainable development also encourage a holistic and integrated approach to decision making. Dale (2001) summarizes recent definitions of sustainability to include environmental sustainability, economic sustainability, and social sustainability (p. 35). All three components are critical to sustainable development and do not work in isolation. Protected area management also requires thinking about the whole and not just the parts. It can get complicated trying to understand and see the relationships between the parts. Dale suggests that “systems thinking provides a framework” (p. 39) to understand the “relationships and interrelationships between the parts and the whole (p. 40). To achieve this, she states that “interdisciplinarity is fundamental” (p. 38). This requires more than a multidisciplinary approach which only brings the disciplines together; whereas, “interdisciplinary and transdisciplinary research implies a common conceptual framework” (p. 39).
Max-Neef (2005) emphasizes the importance of transdisciplinarity and does not think that simply bringing together specialists is sufficient. “An integrating synthesis is not achieved through the accumulation of different brains. It must occur inside of the brains” (p. 5). Breaking through the discipline silos is only part of transdisciplinarity and includes moving beyond knowledge to understanding (p. 15). He summarizes that, “transdisciplinarity, more than a new discipline or super-discipline is, actually, a different manner of seeing the word, more systemic and more holistic” (p. 15).

Similar to applying transdisciplinarity to protected heritage areas, Fry (2001) evaluates transdisciplinary research from a multifunctional landscape perspective. He also supports transdisciplinary studies over specialist disciplinary approaches because it limits decision making (p. 160). He recommends a transdisciplinary approach to understand all interests in a place to ensure “a high degree of integration where theories, models and methods merge” (p. 160). He describes limitations to interdisciplinarity and stresses that it will not remove conflict or “convert all environmental conflicts to win-win situations” (p. 161). Fry advises that interdisciplinarity will bring together different values, but decisions will still need to be made. Ideally, transdisciplinarity will provide options for decision making (p. 161). Amongst his practicable ideas for successful transdisciplinarity, he recommends to “start the process of integration at the beginning of projects”, “be prepared to step outside the frame of one’s own field”, and that it is important to “learn about each other without prejudices and respect other disciplines and their approaches” (p. 166).

Loh and Harmon (2005) introduce what could be the ultimate realization of an integrated approach with their study of the relationships between biological diversity and cultural diversity. They propose the concept of “biocultural diversity” and define it as “the total variety of the
world’s natural and cultural systems” (p. 231). Although applied to larger, even global, areas of scale, the ideas behind the concept demonstrate an integration of thinking that also applies to smaller protected heritage area management. The concept of “biocultural diversity bridges the divide between disciplines in the social sciences that focus on human creativity and behaviour, and those in the natural sciences that focus on the evolutionary fecundity of the non-human world” (p. 232). Maffi (2005) notes that biocultural diversity is an example of an “integrated, transdisciplinary” approach that links “theory with practice and sciences with policy” (p. 612). She describes the benefits of the concept to encourage “greater communication and exchanges among disciplines” and “more work by disciplinary teams” (p. 613). Working with the basis of such a concept creates an approach that is “more sensitive to real world needs” and “more relevant to policy and other applications” (p. 613).

Support for integration can be found within the scientific community. Meffe, Ehrenfeld, and Noss (2006) cite the “need for interdisciplinarity and inclusion of the various social sciences” (p. 596) in approaches to conservation. They critically state:

Those who still think that biology and ecology alone are sufficient for our task – that good science by itself will save the day – are as much in denial as those who say there is no environmental crisis (p. 596).

They challenge their colleagues to “get out of [their] collective comfort zones, break down intellectual and disciplinary barriers, and invent new ways to address” (p. 596) the future sustainability of our world.

Convergence between cultural resource managers and natural resource managers is possible because they share much in common. Lowenthal (2005) provides examples of the commonalities, including the common threats of development and technology that are much
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more powerful now than in the past (p. 86). Protected heritage areas belong to everyone, not only the country they are located in, and “warrant protection as non-renewable and in limited supply” (p. 85). He suggests that damage to protected heritage areas, whether cultural or natural, and the diversity they provide, “imperils our very being” (p. 86).

With general consensus that collaboration amongst disciplines promotes integration and contributes to sound protected heritage area management, the literature provides on-the-ground suggestions for putting it into action. Thomas et al. (2004) appreciate the management challenges of diverse values within a protected heritage area and provide recommendations “to initiate natural and cultural resources reconciliation” (p. 80). They suggest building on the commonality to “preserve national heritage for future generations” and “acknowledge that there is a history to natural history and natural history to history” (p. 81). It is important to bring resource experts together at the start of the project to share their information, approaches, and policy tools. Beginning projects with a collaborative approach curtails an adversarial atmosphere and strives to “balance advocacy with inquiry” (p. 82). Crucial to the success of the collaborative effort is establishing respect between the participants and “understanding that both cultural and natural resource values are important to preserve and protect” (p. 82).

Davis (2004) agrees that both types of resources “require equal consideration” and that “one does not top the other” (p. 74). However, he maintains that the “how” of their everyday management does require different management techniques. While he suggests good planning, communication, common understanding, and clear management direction, he is perhaps too simplistic when he suggests the need for “clearly defined zones or areas distinguishing the cultural and natural resources” (p. 74). He explains the need for different management approaches because of the divergent requirement of natural resources requiring processes to
continue and preventing processes from impairing cultural resources. This works when there is a clear delineation. This may not work as cleanly when the same resource has both cultural and natural value – such as the cave at the Cave and Basin NHS.

Tranel and Hall (2003) see protected heritage area “planners and managers as arbiters of value” (p. 68) and responsible for ensuring all values are considered with decision making. They charge the protected heritage area manager to “prioritize values and decide which values take precedence in which areas” (p. 65).

Ultimately, a decision does need to be made and may appear to give priority to a certain value, but Kerr (2007) warns against competing values and the inherent problem of hegemony. He stresses a holistic approach in order to establish values and suggests that practitioners:

- First, realize that all values of a place must be identified without giving preference to any one set. Second, understand and accept that values are socially constructed within discourses which strive to become hegemonic. Some of them may be reconciled with each but others may not. In a number of cases the differences can only be accepted. And third, accept that new meanings and values will be produced for a historic place in the future (p. 7).

To take this into action, he provides the following direction from a Canadian context:

- First, determine the level of intervention which best expresses the diversity of values. This could be preservation, rehabilitation or restoration. Following long-standing conservation practice, the principle of minimal intervention should be followed, because it offers the best chance that the largest diversity of values will be conserved. Second, references to value and character-defining elements in the Standards section of The Standards and Guidelines for the Conservation of Historic Places in Canada should be
read with this diversity in mind. And third, the guidelines should be interpreted flexibly, to ensure that the maximum range of values can be accommodated within conservation action (p. 7).

Parks Canada’s legislation and policies provide its protected heritage area managers with a solid framework for a holistic and integrated approach to protecting the cultural and natural values of its places. Management tools enable managers to bring together the necessary resource experts, identify all the values of a protected heritage area, and create a thorough decision making process.

Current related literature encourages moving beyond mere multidisciplinary thinking, where the experts are present, but not necessarily working together. The literature promotes a more coordinated interdisciplinary approach to research and management of protected heritage areas. By its definition, sustainability includes the integration of environmental, economic, and social values. Each part of sustainability is important, but its strength lies in the whole. Successful examples of protected heritage area management also address the whole. A values based management approach creates the opportunity to identify all the parts that contribute to the whole.

Communication, respect, and a willingness to work outside individual or disciplinary paradigms appear to create the necessary environment for integrated management. The crux is taking it through to on-the-ground actions and coping with human nature and the management realities faced by protected heritage area practitioners. The research probes the realities of integration through interviews and a focus group with those involved in protected heritage area management and the Cave and Basin NHS.
CHAPTER THREE: METHODOLOGY

This research employs a qualitative research approach because it is best suited for understanding the meaning of policies and perspectives of decision-makers behind the integrated approaches and management of protected heritage areas (Creswell, 2007). The integration of cultural resource and natural resource values in the management of a protected heritage area continues to evolve as new knowledge and associated new values are brought forward and put into practice. The research was conducted within the context of the present and on-going management of the Cave and Basin NHS and sought an “interpretive nature of inquiry” (p. 37). As the researcher, I have sought to explain the context of the management framework and the influences on the decision making process.

A fundamental aspect of qualitative research is the focus on process, in contrast to outcomes from quantitative research (Creswell, 2007; Merriam, 1988; Palys & Atchison, 2008). Looking at process provides the means to answer questions or solve problems (Bentz & Shapiro, 1998). The approach seeks to provide understanding, rather than only an explanation, and uncover meanings, instead of only reporting observed behaviours (1998).

Since management is a human activity and integration of cultural resource management and natural resource management is seemingly dependent on the interaction of people, a “human-centred” (Palys & Atchison, 2008, p. 7) research approach was appropriate. All the players involved in managing protected heritage areas bring their personal values, predispositions, and biases into play as they work together. Aspects of phenomenology informed the research because human perception plays an important part in people’s decisions and management actions (p. 8). This creates an opportunity to delve deeper into the meanings of what people say or do, which produces ways to understand the research from this project.
Additionally, aspects of participatory action research were incorporated into the approach because it “enables action as part of the process” (Wadsworth, 1998, p. 1). Action research is a dynamic methodology; consequently, the data gathering approaches were adjusted as the research evolved in an inductive manner. Based on ten years of direct participation in the management of the Cave and Basin NHS, I have had an authentic experience in putting Parks Canada’s mandate, policies, and guidelines into practice. There are strengths within the site’s management framework that support actions to meet desired goals; however, there are areas that require improvement in order to accomplish more. Action research provides the potential to engage the site’s internal and external stakeholders in an integrated approach to achieving the goals. A mutual learning process between the participants and me created opportunities for observation and reflection. The recursive aspects of participatory action research provided an opportunity for me to reflect on personal experience with the information obtained from the data gathered and adjust the direction of the research accordingly. A basic tenant of action research is to make something better, especially for people in a situation (Greenwood & Levin, 2007). This meshed with the problem solving nature of the qualitative inquiry and the potential for an integrated management approach to improve protected heritage area management. Creswell (2007) suggests:

To study this problem, qualitative researchers use an emerging qualitative approach to inquiry, the collection of data in a natural setting sensitive to the people and places under study, and data analysis that is inductive and establishes patterns or themes. The final written report or presentation includes the voices of participants, the reflexivity of the researcher, and a complex description and interpretation of the problem, and it extends the literature or signals a call for action (p. 37).
The ideas from Creswell (2007) framed my research methodology during the literature review, the data collected from interviews and a focus group session, and my personal reflections and experiences, which were incorporated into the discussion. The research methodology is well suited for this project because of its congruence with the holistic aspects of Parks Canada’s management process. It complements the intent of the Parks Canada mandate and its goal to ensure the commemorative integrity of a national historic site (PC, 2007).

Researcher Subjectivity

As a protected heritage area manager, I had a good understanding of most of the legislation and policies related to protected area management and its application at the Cave and Basin NHS. I was fortunate to also have a working relationship, directly and indirectly, with the research participants. Being part of this community and working in the field for twenty years brought a desired closeness and understanding to the research (Palys & Atchison, 2008). The research data collected through the literature, interviews, and observations were done by the “researcher as key instrument of data collection” (Creswell, 2007, p. 38). Appreciating my closeness and familiarity to both the work and the research material was an important underlying theme.

Bentz & Shapiro (1998) speak to a researcher’s subjectivity and suggest that a researcher be mindful of the value of “tolerating and integrating multiple perspectives” (p. 6). They also identified the importance of appreciating that “all research involves both accepting bias – the bias of one’s own situation and context – and trying to transcend it” and “inquiry usually requires giving up ego or transcending self, even though it is grounded in self and requires intensified self-awareness” (p. 6-7).
An inductive approach was used in order to avoid a predetermined outcome of the research and to ensure that the voices from the information and participants’ experiences were heard (Palys & Atchison, 2008). Data was gathered prior to any real conclusions being formulated and involved the researcher “going back and forth between the themes and the data base until they establish a comprehensive set of themes” (Creswell, 2007, p. 39).

**Researcher Observations and Reflection**

Throughout the data collection process, I took notes and made time to reflect upon the information being gathered and consider my on-going participation with the management of the Cave and Basin NHS. I reflected on how my perspective influenced what information was gathered and who was interviewed. My effect on conclusions drawn was incorporated into the inductive approach to the research process (Maxwell, 2005).

**Participant Selection**

Participants for one-on-one interviews and for a focus group session were selected using purposive sampling based on “criterion for inclusion” (Palys & Atchison, 2008, p. 124). Miles & Huberman (1994) suggest that criteria be used to establish “boundaries” for the research based on time for the project and the researcher’s ability to gather material for the project (p. 27). A “frame” for the criteria is also required to assist in revealing relevant information and providing a structure to establish similarities or differences during the research (p. 27). The selection criteria included a participant’s experience in protected heritage area management or their direct, or indirect, relationship with the management of the Cave and Basin NHS. Parks Canada employees working at the National Office, at Service Centres, and from other frontline Field Units were approached to gain their insights from a broader policy perspective to on-the-ground action in practice. Locally, Parks Canada staff and stakeholders directly and indirectly
involved in the management of the Cave and Basin NHS were contacted. The selection criteria also included familiarity with me as the researcher and the potential for them to be available to participate in the project.

A formal Request for Ethical Review for Research Involving Humans was completed and submitted for approval by Royal Roads University prior to undertaking research. Between July and October 2009, I contacted thirteen prospective participants through email, which introduced the project and asked if they would participate in one-on-one interviews. Ten people accepted. Similarly, I invited seven people to the focus group and five accepted. I was able to solicit participants for the one-on-one interviews from outside of the Banff area via telephone. For the sake of time and cost, participants for the focus group were solicited from the local Banff area. A follow up email or telephone call was made to those who agreed to participate. With each confirmed contact, there was an explanation of ensuring the anonymity of the participant and the right of the participant to withdraw from the research project at any time. A written consent form (see Appendix B and Appendix D) was obtained at the beginning of in person, one-on-one interviews and the focus group. A verbal confirmation of consent was obtained at the beginning of the telephone interviews.

Data Gathering Methods

Literature review.

The approach to the literature review focused on a brief explanation of the significance of the relevant material to the project and enough background context to demonstrate its relevancy, rather than recounting a detailed or complete history (Wolcott, 2009).

The literature review began with an overview of current legislation and policy directly related to the current management context of the Cave and Basin NHS. Subsequent searching
for relevant literature followed Creswell’s (2007) “emergent design” qualitative inquiry characteristic, with a less structured research process that was able to shift or change relative to the data being collected (p. 39). Ideas from the literature and corresponding references were followed up with searches in different data bases. The dynamic nature of the research methodology allowed for following up on suggestions from the participants of the interviews and focus group on articles or books with which they were familiar.

An initial scan of each piece of material was conducted and its relevance to the research was determined by author or responsible organization, its published date relative to the project, the relevancy of the content, and overall quality of the source (Merriam, 1998). Once selected, each piece of literature was read for general understanding of the topic and then re-read to determine main themes or arguments. As the research proceeded, much of the literature was read again to identify links with new material, the interviews, and the focus group.

Interviews.

Wolcott (2009) emphasizes research participants are “people rather than objects to study” and states the researcher should conduct research “among others rather than on them” (p. 17). Interviewing was chosen to gain insights from other people involved with protected area management and “affirms the importance of the individual without denigrating the possibility of community and collaboration” (Seidman, 2006, p. 14).

In-person and telephone one-on-one interviews were semi-structured and open-ended. With the consent of each participant, each interview was digitally recorded and transcribed. Notes were also taken during the interview. Each interview was kept to a sixty-minute maximum. The questions were adjusted during each unique session so that the participant was able to speak to each topic and not repeat information.
In-person interviews were conducted with local Parks Canada staff and stakeholders in an agreed upon location that was free of distractions and respected their anonymity. Each telephone interview was scheduled at the participant’s convenience.

The interviews followed a set of eight questions presented to the participant prior to the interview (see Appendix C). As a means to ease into the interview, each participant was asked about their general thoughts on the integration of cultural resource and natural resource management with respect to their own experiences with protected heritage areas or the Cave and Basin NHS. The interview questions were asked relevant to the participant’s response to the general introduction question so as not to repeat answers, but rather to solicit more of their thoughts and perspectives.

Each interview recording was listened to and compared to the transcripts and notes taken during the interview. After verifying the transcript, terminology and sentences were edited in the transcripts as required in order to ensure accuracy of the information, but not to change the essence of the information. For example, some of the terminology and place names unfamiliar to the transcribers were corrected. Similar to the literature review, each transcript was read and themes identified and compared to the other interviews, the literature, and the focus group.

*Focus group.*

To augment the data collected from interview participants and the literature, a focus group session was held with select internal staff and select external stakeholders. The purpose of the focus group was to listen to a range of perspectives within a different context and gather more information and opinions in order to gain additional understanding related to the research project (Kruger & Casey, 2009).
Kruger & Casey (2009) suggest that focus groups are successful “when participants feel comfortable, respected and free to give their opinion without being judged” (p. 4). To encourage an open and frank discussion, a group size of five to ten participants was planned for with five people participating. The session composition was also an attempt to ensure the quality of discussion and avoid “trivial results” (p. 14), which can occur if the group is too large or the topic is too broad. In addition to the purposive selection criteria explained earlier, participants were also selected based on their willingness to talk in a group setting.

Consent was obtained from each participant as they arrived at the focus group location. The purpose of the focus group was clearly explained to the participants at the opening of the three hour session. A set of rules was presented to ensure respectful behaviour, but also to reinforce that consensus was not necessarily a desired outcome – ideas from the group were being sought (Kruger & Casey, 2009). Unlike the interviews, focus group participants were not provided with the questions before the session. This was done in an attempt to encourage more open discussion amongst participants who had not been part of the previous interview research. The focus group participants were asked their thoughts on four questions (see Appendix E) and had opportunities to share their thoughts collectively and discuss amongst each other.

The focus group session was moderated by an experienced facilitator, permitting me, in the role of researcher, to be free to take notes and provide clarification during the discussion. The session was simultaneously recorded by a separate note taker and digitally recorded. The focus group recording was listened to and compared to the transcripts and notes taken. Terminology and sentences were edited in the transcripts as required in order to ensure accuracy of the information, but not to change the essence of the information. The transcript was read and themes identified and compared to the interviews and the literature.
Data Analysis and Reporting

The analysis of the collected data was an iterative process, rather than linear, that began as soon as the research started and continued until it ended (Palys & Atchison, 2008). The iterative process was both progressive and recursive, by building on each new piece of information and reviewing it and the other data as it was obtained. Seidel (1998) describes qualitative data analysis as an interconnected “notice, collect, think process” (p. 2). As early data was collected, certain things were noted, which led to thinking about these aspects and generating other ideas – which then in turn led to more thinking, collecting, and noticing.

The iterative process was utilized through each phase of data analysis. Miles & Huberman (1994) describe data analysis in three phases as “data reduction, data display, and conclusion drawing/verification” (p. 10). During the first phase of data reduction, the data collected from the literature review, interviews, and focus group was summarized and organized into preliminary themes. The selection and retention of information was linked back to its relevance to the research questions.

As the data accumulated, certain relationships and patterns became apparent. The inductive process of the research provided “emergent categories” (Taylor-Powell & Renner, 2003, p. 3) that adjusted as the research proceeded into main themes and sub-themes. This phase of the analysis is described by Miles & Huberman (1994) as “data display”, where the data is an “organized, compressed assembly of information that permits conclusion drawing and action” (p. 11). Margin notes, highlighted material, and summaries from the literature review, interview transcripts and notes, and the focus group transcript and notes were reviewed a number of times to determine relationships or differences to each other. The frequency of certain ideas in the data and the emphasis placed on the idea, suggested importance and could be compared to determine
its significance or suggest that there were other contributing factors (Taylor-Powell & Renner, 2003). Matrices were developed to summarize the main themes and provide a simple means to analyze them against the research questions.

The final phase of the data analysis described by Miles & Huberman (1994) is “conclusion drawing and verification” (p. 11). Similar to Seidel’s (1998) continuum of “notice, collect, think” throughout the data collection process, all three of Miles & Huberman’s (1994) “phases” were to some extent used as the data was collected. Initial thoughts were noted, initial relationships were identified, and then corroborated with other data – and so on until data collection was completed. Early conclusions were not taken as absolute, but rather were kept in mind as information unfolded and a more complete picture appeared and formalized based on numerous supporting sources (Miles & Huberman, 1994).

The validity of the data collected and the conclusions drawn is grounded in triangulation in that multiple sources of data and methods were used (Creswell, 2007). Throughout the data collection and analysis, I made every attempt to exercise reflexivity. A self-awareness of my own background, experiences, and biases was acknowledged as data was obtained and analyzed (Creswell, 2007). Additionally, I took the opportunity to share initial thoughts with co-workers and conduct an informal “peer review” of early conclusions.
CHAPTER 4: RESULTS

This chapter presents the findings from the questions posed to the one-on-one interview and focus group session participants. The questions provided to the participants related to my research objective and supplementary research questions: How can goals for cultural and natural resource management be integrated into the management of a protected heritage area such as a national historic site or national park?

- which on-the-ground actions are being implemented to integrate cultural and natural values at the Cave and Basin NHS? Which actions are successful and which actions are not?
- are there aspects of the management framework that hinder the integration of cultural and natural resource protection?
- are management approaches used in other protected areas transferable to the Cave and Basin NHS?

The participants shared their knowledge and opinions from both a personal and organizational perspective. I have used quotes from the interview and focus group transcripts, keeping them anonymous by identifying the participant through numbers 1-15 following each quote. The identification numbers were randomly attributed to each participant to further ensure anonymity.

Similar to the literature review, the themes of integration, barriers to integration, and successful integration were described by the interview and focus group participants.

Integration

In general, all participants saw value with an integrated management approach to cultural resources and natural resources within a protected heritage area. Variance occurred in
their differing perspectives on what integration means. One participant said “when I think of integration, I think of how the two work together and how they complement each other” (2). Another participant suggested “if we think back to what the basics are, integration is just a natural part of cultural resource management, from the natural side of things” (10). For a different participant, an integrated approach would result in “successfully preserving or protecting and presenting both … as long as the work towards protecting one of them doesn’t destroy the other “(1). As one participant said, integration “sounds like it should be easy” and then explained that “often there’s a direct conflict between what you want to do to preserve heritage resources versus what would be the right thing to do to preserve natural resources” (8). Integrated management appeared to “contribute to bridging silos and supporting collaboration” (12). This was supported by another’s advice that “you should integrate the natural and the cultural and strive to do that if you are looking at a protected area and to try to work across silos.” (7). A participant commented, “A time of broader opportunity is coming, the pendulum of specialization has swung a long way” and “people are coming into the system from an education background based on integration” (12).

**Barriers to Integration**

A number of participants shared their thoughts on barriers to an integrated management approach.

**Working in silos.**

Part of the problem is inherent in how people work, observed one participant: “we tend to divide things into silos versus an interdisciplinary approach” (9). This supported an example from a participant who described a person who quit his position “because he was in a silo” and
felt the need “to operate wholly with [his] professional colleagues to succeed” rather than work more with others from outside disciplines (12).

A possible explanation for a person’s silo perspective, offered one participant, is the way “the modern world and the way universities work, we become specialists in various kinds of things” (2). The way people are trained or educated encourages a silo approach to their work. “Everybody works in their little stovepipe and so it’s a challenge to get people … to break out of their kind of mould to think about how systems work together and how ecosystems work and how things work, you know, how things integrate” (2). “The difficulty is the lenses that you bring to paradigms”, related one participant (7). A related comment from two participants spoke of how an individual’s background contributed to the silo. One suggested it was “because of their natural biases” (14) and the other participant commented that “people who gravitate to the two sides of this tend to be different people, they were drawn to particular aspects due to their interests, [and] they each have their own cultures” (12). A different participant noted that “within our culture, unawareness of other silos is indicative of our society today. We do know the resources, not as connected, but as either cultural or natural” (3).

Structure.

Almost fifty percent of the participants commented on organizational structure and its influence on protected heritage area management. The broad mandate and structure of Parks Canada as a national organization with operational national historic sites and national parks across the country, regional service centres, and a national office create its own challenges. A participant noted that “organizations tend to divide the natural and cultural into different programs” and that “people themselves generally come from different backgrounds” (4). The different perspectives create “a tendency, both in terms of people’s background and in terms of
how organizations are organized, to create silos or the potential for that” (4). Being “identified internally as functional groups” (11) and then having to “report along these functional kinds of topic lines” (2) appeared to reinforce the silo and inhibit integration. These two participants cited the functional framework created by key planning documents as a cause. “The corporate plan framework, and in a lot of ways just because of the way it sets out the accountabilities … it’s not the most useful integrated” (11). “A lot of the structure will talk about integration, but then the structure doesn’t lend itself because it’s still, you get into these segments, into these different functional lines” and “that some of our documents and some of our policies don’t really foster integration – they actually foster separation” (2). Another participant suggested that integration is “built into our policies at the highest level, but we still operate as if they were separate” (9).

Even the physical layout of an office contributed to functional isolation. A participant said that “national office was very separate, with departments on separate floors” (15). Another participant commented on the lack of interaction: “in a national office context, you have a group of people on one floor and a group of people on another floor and they are very busy, very preoccupied” (4). Such a configuration does not lend itself to effective cross functional communication.

Communication and language.

A participant proposed that “the thing about effective approaches is about dialogue, about creating a forum”, but then cautioned that “there has to be respectful dialogue within and across disciplines, and perspectives, and looking at things holistically” (7). Communication was identified by one participant as “one of the biggest key pieces” with project management and that if it does not happen properly, it “gets us off the rails” and “jeopardizes the project” (10).
The human factor also becomes an important aspect of effective or poor communication. “There can be difficulty in that the people interested in [natural resources or cultural resources] are sometimes not the same people or even the same kinds of people, and so you can run into communications difficulties” (8).

Although the different players in protected heritage area management may be communicating, approximately twenty-five percent of the participants described that the players may not be speaking the same language. “Something that would be very useful is really to speak a common language and to understand each perspective” (14) suggested one participant, while another suggested “trying to find a language that talks about the commonalities of protected areas” (7).

**Lack of awareness.**

Participants identified the need for an understanding or appreciation of what others may think of as important for management of a protected heritage area. Approximately thirty-three percent of the participants indicated that a simple lack of awareness was often the cause. A participant shared, “If I had had more of an opportunity to learn about cultural resource management when I started out, maybe I would have taken a different approach” and “had I understood that … it would have been a heck of a lot easier to manage for integration now” (6).

A common challenge for both cultural resource managers and natural resource managers was with their constituents “as people become further disconnected” (13) from protected heritage areas. A participant spoke to people’s changing lifestyles, in a “rapidly urbanizing world” where “people are spending a lot more time on their computers, people aren’t travelling necessarily quite as much” (1) and becoming less aware of these special places.
Priorities and pendulums.

The evolution of an organization and its response to change was identified as an area that could inhibit integration. The changing emphasis on different aspects of a protected heritage area’s management and the subsequent real or perceived pendulum swings of the organization’s priorities were seen as a hindrance. A participant observed that “we always put our own management priorities on the table” (9). Another participant explained that “goals and priorities – if there are different disciplines involved, they each have their own lists that get looked at in isolation. Integration is to merge everything into one list – more difficult, but more productive” (12).

A participant suggested that Parks Canada’s recent reclassifications and strategy for hiring “move from generalists to specialists in the new reorganization – [moves] us even further away from integration [and] not being encouraged to cross silos” (9). Commenting on Parks Canada’s current emphasis on visitor experience, a participant noted that this “new wave has come in and often tends to displace the other wave rather than saying ‘oh, how can this new initiative work effectively with what’s there’ – that’s one of the patterns you see in organizations” (4). Similarly, a different participant recalled how the management of one site “used to be talked about as a park setting” where “you [could] do what you have to do to get people at your door” – and then noted their realization, “holy cow, we’ve forgotten all about why we’re a national historic site” (10).

Successful Integration

The participants did not see the many challenges to integrating cultural resource management and natural resource management within a protected heritage area as insurmountable. Each had suggestions as to how integration could be achieved.
Focus on the whole.

Applying a broader scope to a protected heritage area, rather than a narrow focus on its individual elements, was presented as a means for integration. One respondent said, “you can’t look at a protected area in isolation” and added:

The other part of it is integrating the protected area into the larger ecosystem or political system or environment. A protected area is not going to be protected if it’s not engaged. This takes me into the realm of governance. It’s about relationships and people working across jurisdictions with some sense of common or shared vision and to go forward as being the real thing (7).

Similarly, another participant offered “the lens you [use to] look at something is so important” (2). They referred to the Cave and Basin NHS:

because you’ve got the environment [and] you’ve got cultural stuff… all that stuff blended together there, and so your lens can be quite broad and just how you integrate those things becomes a little more obvious (2).

A different participant recommended to “take a look at the site as a holistic site as opposed to just the pieces of it” (10). They acknowledged that “the pieces of it matter” but noted:

how important it was to look at that place holistically because you couldn’t separate the building from the location; they were so inter-related that the protection of the whole area was going to become important, and the understanding of the whole area was going to become really important (10).
Convergence and Collaboration 46

Have a shared vision.

Contributing to the notion of managing the whole versus the parts, participants indicated that a shared vision for a protected heritage area could foster an integrated management approach.

To achieve an integrated approach, a participant suggested to “start off with an integrated vision, and then you move into your management objectives, and from there you can start separating them in terms of what [are] the cultural objectives and what are the natural objectives that we want to achieve in the management plan” (11).

A different participant suggested:

having broad integrated goals that are agreed upon by both the people tasked with looking after the areas, so the Parks people, and the external stakeholders, the public. So, it starts with kind of agreeing on what integration means and then developing a kind of game plan of putting in place a course forward (2).

Adding to an earlier comment of “some sense of common or shared vision”, a participant described that with successful integration “you see people who are involved, that there is an authentic and respectful dialogue going on as part of the decision-making process – this is what you would see, and a sense of balance”(7).

A different participant suggested “the key challenge is to make sure that there’s a common understanding amongst the interested parties, and the interested parties are very broad … from the [Parks Canada Agency] down to managers, common understanding amongst them, common understanding amongst stakeholders” (11).

In order to ensure a common understanding, one participant proposed “creating a code of ethics or a code of conduct on integration” (4). They explained, “a series of points of conduct or
courtesy or ways of proceeding that included an integrated approach” where those involved “actually take the time to look at things from other people’s perspectives” (4). They suggested that a way to encourage integration would be for “a cultural resource person to summarize the natural resource issues at the site and if we could ask the natural resource person to talk about what the cultural concerns are at the site to get people to talk and think about other people’s perspectives” (4).

*Values based management.*

“Shared knowledge is important, but shared values, of course, are that much more fundamental” (8) spoke to a theme that was brought up by almost half of the participants. Managing the identified values of a protected heritage area, rather than labelling the different parts cultural or natural, was promoted as a way to achieve integrated management.

Appreciating changing knowledge and values about a place was important for a participant:

the difficulty is that very few people who are interpreting these sites or managing them have a very clear idea of what values and attitudes might have been at the time. They have an almost Victorian tendency to separate these into good values and bad values, when in actual fact when you’re talking about history, you really only need to say, is it true or is it not true, not was it good or was it bad (8).

Another participant saw a values based approach as a way to “get away from the idea that you are grading one over the other or you’re putting more importance on one over the other” (10). Avoiding vague definitions of value and having “a statement of value that talks about what is important to the understanding of why we have the protected heritage area, whether it’s a national historic site or a national park” (10). Being clear on the values was also
suggested by a different participant and they added the importance of remembering to think outside of the management structure and “find a way to make these values meaningful to visitors” (13).

Overcoming challenges to integration through identifying values was a point suggested by over fifty percent of the participants. “Even though we try to feed information between cultural and natural [management], we still operate at different levels. We’re trying to make things round and we’re getting there” (6) observed a participant. Another noted:

there are two ways to make something round: grind it down, or plump it up. How it happens will make a huge difference on how the integration will work. If one side feels they have to compromise their values to meet the other sides’ needs, you are grinding … if there is an opportunity for each side to advance their values, there’s a chance (14).

Speaking to the cultural resources and natural resources of a place, a participant liked how Parks Canada’s cultural resource management policy “creates a framework wherein all the of these things can be considered to be heritage values” and “provides a framework where people can understand these holistically as things that have value” (4). They described how “there’s often an assumption made that the cultural and the natural are going to conflict with each other” (4). A values based approach offered a solution because “the conflict [is] often between people rather than between the value … people become positional on things and are often not looking for the solution, but taking a position” (4). As a solution and continuing on their idea of a “code of conduct on integration”, the participant explained how the people involved with managing a protected heritage area should be “obligated to know those other values; you are obligated to defend those other values. You are not the spokesperson for one part of those values … you need to articulate, explain, and balance the full range of values” (4).
This thought was echoed by another participant who suggested the need to “put yourself in the other’s shoes” (6).

To ensure success, a participant said “you have to have agreement about what those values are and what the management objectives are for managing the values” (4). This participant also liked how Parks Canada provided clear value statements for national historic sites via commemorative integrity statements and a new approach for national parks via “cultural resource value statements” (4).

Reflecting on how Parks Canada has designated its protected heritage areas over the years, a participant described how there have been challenges when new values are added to an existing protected heritage area. They used the Cave and Basin NHS as an example. The Cave and Basin NHS was another layer added to an existing designation – Banff National Park – and then after the Cave and Basin NHS is designated, another layer is added within its area – the Banff Springs Snail. They suggested that if Parks Canada “were to start this all over again … we’d do a much better job in terms of integration” (11) because of current management tools. New designations such as the North West Territories’ Sahoyúé-ṣehdacho National Historic Site “designated as both cultural and natural”, is a “clear example of integration” (11).

Leading practices.

Participants provided existing examples of cultural resource and natural resource integration, particularly First Nations approaches to landscape and the application of a place as a cultural landscape.

“It’s an important area” observed one participant, because “under the UNESCO World Heritage Sites program we’re seeing more and more designations of cultural ‘and’ natural” (11). Additionally, they noted that “as we move into future designations and future management of
our sites, in particular when we’re working with Aboriginal Peoples, as one example, the cultural and the natural heritage come together very quickly” (11). Another participant commented on their work on the east coast “with the Aboriginal partners and they never separated” cultural and natural (10). A different participant commented, “a First Nations perspective where First Nations culture, the health of First Nations culture … their economies relied on resource procurement of things in the environment and the two had to work hand in hand for things to be kind of healthy for both nature and culture” (2).

In Canada’s north, integration is an obvious approach according to another participant, “where on the large cultural landscape … you can actually see the vestiges of what humans have left behind hundreds of years ago, sometimes thousands of years ago” (14). A different participant noted, “if you have people in a place, it’s because they are using the resources around them … tells us something about the landscape, what the environment was like” and separating natural and cultural is “a completely artificial split where one shouldn’t exist” (15). A participant who had worked with the Inuit recalled “when we went to look at the site, the Inuit talked about not what was designated, which was a couple of areas on the island that was an archaeological site, but holistically as what was a cultural landscape” (10).

Facilitated Inclusion.

Participants agreed that effective integration would require the efforts of everyone involved in protected heritage area management.

A participant shared, “at the end of the day, I still walk out as the natural resource person – maybe we need the magical integration person to make it work” (6). Another participant cautioned, “there’s a higher degree of risk when you broaden the focus … you need good facilitators” (9). Other participants shared this idea of leadership. A participant stressed,
“you have to have a senior manager there at the field level who has a real sense of what integration looks like and a real respect for balancing the different values” (4).

The scope of my project, time, and resources limited the number of research participants for the interviews and the focus group. I adjusted my selection criteria accordingly and determined a manageable number of participants for the project. The enlightening insights from the research participants provided real life perspectives from current practitioners to compare against the reviewed literature and my own observations.
CHAPTER 5: DISCUSSION

Upon review of related literature and results from the interviews and focus group, it is apparent that an integrated approach is a preferred way to manage protected heritage areas. Integrating cultural resource management and natural resource management provides practitioners with a more comprehensive suite of tools that creates a holistic and inclusive framework for the overall management of a protected heritage area. This research project has provided me with an opportunity to simultaneously work in my area of study and study my area of work. The following discussion of the literature review and results includes my own observations of the practice of protected heritage area management and reflections of my own part in the process.

Is There a Dichotomy?

Often in times of stress or crisis, there is a will by people to put differences aside and work together to move through a problem. Although crisis resilience is common in times of strife, in the typical non-life threatening situations of everyday work, the opposite is just as likely to occur.

Take for example an event at the Cave and Basin NHS when thermal water went beyond its controlled confines and expanded into a seemingly benign area. Soon, thermal water began to erode extant cultural landscape features and weep through the wall of the Cave – eroding material and pouring down the tunnel walkway. A simple fix was to unplug the grate that normally channelled the thermal water and maintain its controlled route through the site. However, the new ponding quickly created new habitat and removing the water from its new area was seen as a negative reaction to a natural event. Equally as quick was the reaction of the
practitioners involved, including myself, to take sides and create an “us/them” and “cultural resource/natural resource” confrontation.

The expectations of the practitioners involved with this example focused along disciplinary lines and entrenched a silo-like approach to an important protected heritage area management situation. This occurred despite Parks Canada’s integrated mandate, policies, and guidelines (see Figure 4). Although this creates a *perceived* “false dichotomy” (Bridgewater et al., 2007, p. 406; Hubbard et al., 2007, p. 94), the disconnect between management tools and in-the-field actions perpetuates a *real* dichotomy in some cases.

Figure 4: Parks Canada’s periodic and desired conditions for integration.
Existing Barriers

The interview and focus group participants identified many of the same barriers to integration as cited in the literature.

A common underlying aspect for both was the human factor in the management of protected heritage areas. The internal and external people involved with a protected heritage area are not always aware of other values attributed to the place. The lack of knowledge and understanding usually happens honestly; however, the situation becomes awkward when there is neither an attempt nor a willingness to appreciate other values or considerations for a place. An individual’s tendency for risk aversion combined with feeling that their professional values are threatened can cause a reaction for them to become further entrenched in their views. It can be particularly challenging when ownership over something someone has created or written is subject to criticism or critique. In these circumstances a common response is “no”, because it is empowering and protects their own values.

Although other values may be acknowledged, Kerr (2007) and research participants (9; 12) warned that agreement may not be reached unless one set of values is seen as more important. This is agreement at the expense of integration. I have been to meetings where reams of information were presented to support a point of view, so much in fact that Thomas Dolby’s (1982) “blinded me with science” started ringing in my ear, making it difficult to consider other information. Imparting preferences and biases in such a manner may be perceived incorrectly as policy. This hegemonic approach implies incorrect control or authority that is not conducive to an integrated approach.

Parks Canada is moving towards more specialists in the field. While the expertise is needed, it can contribute to less appreciation for consideration of other values. Specialists “own” their
speciality and seek to perfect their knowledge and its application. If the focus is too narrow, it can limit moving forward with an integrated approach.

Communication and vocabulary further complicate the situation. Specialized training and experience do not prepare people for transdisciplinary discourse. When opportunities to work together arise, they are often plagued with misunderstanding because of discipline unique vocabulary. With practitioners so busy and time and resources at a constant premium, it is difficult to arrange time to meet and discuss how to work through an issue. It is even more difficult to bring practitioners together to hold high level discussions concerning theory or policies, let alone integration.

Ways and Means of Integration

Suggested ways to achieve an integrated approach to protected heritage area management were provided in the literature and by the interview and focus group participants.

Getting people together is one thing, getting them to work together constructively is another. Being present does not mean being actively involved. Providing a forum that provides a bridge between the practitioners and disciplines fosters convergence of ideas and values. It improves on decision making from being a multidisciplinary approach to becoming interdisciplinary. Rather than asking who is here?, an integrated approach asks who is not here? For successful integration, all the expertise present within the multidisciplinary group needs to move beyond representing their individual disciplinary values and converge into an interdisciplinary group – where respective values are appreciated and respected. The process can lead to optimum integrated management when understanding and sharing of respective values occurs and the group takes a transdisciplinary approach (Max-Neef, 2005).
Creating such a forum is based on trust in each of the players and respect for their values. Greenwood and Levin (2007) propose a “cogenerative action research model” (p. 94) that acknowledges the various players, their knowledge and values, and creates an iterative decision making process (see Figure 5). This model is adaptable to illustrate an integrated approach and useful to incorporate findings from this research project.

![Diagram showing a convergent approach for decision-making](image)

Adapted from Greenwood & Levin, 2007

Figure 5: A convergent approach for decision-making


The internal practitioner(s) may be the main manager(s), but do not own the problem entirely and cannot act in isolation (p. 93). Outside expertise is brought together with existing
expertise and the process allows the participants to separate, think about the new information presented, and meet again with new understanding to strive for a win-win decision (p. 94-96).

An important aspect of the suggested convergent approach is the early involvement of key players. Outside stakeholders are contacted at the beginning and participate with the formulation of a solution rather than being asked to comment on a draft solution that has been created in isolation by internal practitioners. Consequently, crucial support and trust are achieved for the process and opportunities for future collaboration are established.

Parks Canada’s mandate and policies support and promote an integrated approach to protected heritage area management. Unfortunately, specific training with some policy tools, such as commemorative integrity or cultural resource management, is not a requirement. With so many other training requirements challenging time and resources, it would be difficult to suggest additions to current mandatory training. Ensuring that integrated management is appropriately incorporated into existing training may be a solution. Producing an integrated management code of ethics would ensure practitioners have both the obligation to consider all aspects of a protected heritage area and to work with all the other practitioners necessary to meet integration. I have observed the perception that compliance with cultural resource management policy is a hindrance or obstacle to getting things done. Guiding practitioners through an integrated approach could encourage practitioners to work with cultural resource management in the same manner that they may observe safety codes and other codes of practice.

**Integrated Protected Heritage Area Management**

The literature and the results from the research recognized the multiplicity of values within a protected heritage area and that the whole was greater than its parts. Convergent critical thinking is necessary to the planning and management of these complex places.
Figure 6 depicts a suggested values based management approach for protected heritage areas that provides the means for convergence of different values and collaboration amongst those with whom they are important.

![Diagram](image)

**Figure 6**: Integrated protected heritage area management.

Nature does not attribute human feelings of good or bad in its processes, it tends to seek balance. History is rife with associations of good and bad, but strives to be a true record of the past. Reconciling both cultural and natural values within a protected heritage area requires an integrated management approach to ensure a clear understanding of why the place is special and what it will take to ensure its long-term protection.

Values based management is inclusive of the various stakeholders and their respective policies, disciplines, and values. It brings together separate processes and creates a bridge across...
the silos created by uni-disciplinary or closed approaches. The historic values, the natural
values, and the mandated and required operational management values are brought together. An
integrated picture of the protected heritage area is created. Ultimately, through a values based
management approach, even the various labels for the values can be removed and a true
transparent holistic representation of the protected heritage area is revealed. Not everything
within a protected heritage area has value, but if value is identified it should be managed,
protected, and presented regardless of its type.

Values based management is integral to an integrated approach to protected heritage area
management and provides flexibility for protected heritage area managers. Spatially, all values
on, in, or over the landscape – tangible and intangible – are considered. Temporally, values
associated with before, during, and after the significance of commemoration are considered. A
values based management approach can also withstand the pendulum swings of new initiatives
or emphasis on a particular aspect of a protected heritage area. While emphasis may be drawn to
certain values, the approach ensures that all values are still considered in the process. It is easily
suitable for the establishment of new protected heritage areas and can be adopted for current
protected heritage areas. New knowledge and new values can be added to existing designation,
without disrespecting or ignoring previously identified values or decisions.

The appropriate tools – Parks Canada’s legislation, mandate, and policies – are in place to
support and encourage integrated management. The appropriate stakeholders – responsible
managers, internal specialists, and external specialists – have the expertise and knowledge to
make holistic management a success. Reflecting on my role in the management of the Cave and
Basin NHS, I start to appreciate how roadblocks are created and how they have challenged the
integration of cultural and natural resource management goals for the site. More importantly, I
can acknowledge my positive and negative influence in the process. I also recognize my own changes in understanding and appreciation of the site’s values that can help me be a more constructive practitioner.

My research project was limited to the scope of integrating cultural and natural resource management as it related to my experience with the Cave and Basin NHS. I narrowed my literature search to material that would help answer my research objective and the research questions that I developed. My selection of research participants was limited to individuals that I could access within the timeline and limited resources of the project. The research demonstrated that integration of cultural and natural resource management in protected heritage areas continues to evolve.

The challenges of translating the theory into practice remain. Getting to the how is a common hurdle. Transdisciplinary approaches have been applied to aspects of protected heritage area management and further specific research would benefit integrated management thinking. Its application is complex and would take time to incorporate into day-to-day work. A more immediate and practical task would be to develop and refine tools for practitioners, such as a code of ethics or code of conduct, which could help clarify expectations and roles for successful integration. Values based management bridges the gap between intellectual transdisciplinarity and work place codes. Organizations such as Parks Canada are beginning to apply this approach to protected heritage area management. Incorporating values based management into policies and training could be a potential best practice of integrated management.
CHAPTER 6: CONCLUSION

The word “and” appears six times in Parks Canada’s mandate – the words “either”, “or” do not (PC, 2008b). More than a mere conjunction for listing, its influence is in ensuring an inclusive and holistic basis for an integrated approach to the organization’s management of protected heritage areas. Parks Canada’s system of protected heritage areas is about ecological and commemorative integrity; national historic sites and national parks and national marine conservation areas; internal and external stakeholders; and places for people and protection. Integration is inherent in Parks Canada’s policies and necessary for management of its protected heritage areas.

The literature reviewed and the results from the interviews and focus group for this research project provide current insight into the evolving incorporation of integrated practices in protected heritage management. This project’s broader research objective – How can goals for cultural and natural resource management be integrated into the management of a protected heritage area such as a national historic site or national park? – is addressed with answers from the research questions.

On-the-Ground Actions

Which on-the-ground actions are being implemented to integrate cultural and natural values at the Cave and Basin NHS? Which actions are successful and which actions are not?

The current Cave and Basin NHS management plan (PC, 2007a) and the Banff Springs Snail recovery strategy (Lepitzki & Pacas, 2007) identify priorities for on-the-ground actions created around integrated management. While this provides the basis for an integrated approach, the transition to implementation is still problematic. Day-to-day realities of limited time and resources delay regular communication between practitioners and inhibit early inclusion in
discussions and decision-making. Heavy workloads and time constraints push practitioners to focus mainly on their own departmental priorities, to the exclusion of others. This can create the perception that other people’s work is less important and that even a willingness to appreciate the value of other’s work is lacking. Consequently, actions that focus more on an individual historic resource or natural resource remain contentious and difficult to resolve.

*Management Framework and Integration*

Are there aspects of the management framework that hinder the integration of cultural and natural resource protection?

Parks Canada’s management framework encourages an integrated approach to managing its protected heritage areas. Managers and practitioners have a variety of policy and guideline tools at their disposal to encourage integrated management.

However, there is a disconnect between policy and practice. The national scope of the organization across Canada, corporate priorities, and local concerns perpetuate disciplinary silos and make it challenging to implement holistic thinking, planning, and management in the field. This also fosters a perception of the existence of a policy pendulum. Rather than thinking of the whole and applying the integrated mandate, practitioners focus on the parts and emphasize the priorities. For example, the current pendulum swing of visitor experience suggests to some practitioners that resource protection is being neglected – which is not the case.

Additionally, restricted resources limit training and professional forums for dialogue. Practitioners tend to focus on their immediate sphere of work and do not contemplate changes to policy or the adoption of new practices such as integrated management.
Integrated Management Approaches

Are management approaches used in other protected areas transferable to the Cave and Basin NHS?

The creation of a code of ethics or “code of integration” for protected heritage area management could hold practitioners accountable for ensuring that integration is a matter of course in their management activities. This could provoke constructive critical thinking and move practitioners beyond disciplinary silo-type thinking to find collaborative solutions that make the practice relevant to all.

Values based management is a newer trend in protected heritage area management. It is a powerful framework to integrate cultural and natural resource management goals within a protected heritage area. It identifies every value attributed to the protected place. This framework also provides the impetus to move practitioners from functioning simply as multidisciplinary teams, to the stronger position of interdisciplinary collaborators, and eventually foster transdisciplinarity – the “holy grail” of integrated management.

Integration channels policy into practice. Furthermore, integration increases efficiencies in decision-making, encouraging practitioners to work towards a common goal instead of against each other. Focused training with integrative approaches will help practitioners thoroughly understand and appreciate the protected heritage areas they manage and build stronger relationships amongst them, their disciplines, and their values.

The Cave and Basin NHS provides an excellent example of the complexities found within a protected heritage area. The mix of cultural and natural values, combined with public use, challenges the management of individual elements; however, they create a priceless treasure when considered as a whole. The Cave and Basin NHS is positioned to champion an inclusive,
values based integrated management framework that embraces convergence and promotes collaboration for the common goal of a sustainable protected heritage area. Hard decisions will still need to be made, but will be more informed and supported by this comprehensive collaborative framework.

This birthplace of Canada’s national parks may also be the birthplace of integration. It is a place where different interests and ideals converge and produce a collaborative environment for the integration of cultural and natural resource values. *Vive le “and”*. 
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APPENDIX A: GLOSSARY

Biocultural Diversity
Diversity of life, in all its manifestations – biological, cultural, and linguistic – which are interrelated within a complex socio-ecological adaptive system (Maffi, 2005, p. 602).

Commemorative Integrity
Commemorative Integrity reflects the health and wholeness of a site. A national historic site possesses commemorative integrity when:
- the resources directly related to the reasons for designation as a national historic site are not impaired or under threat;
- the reasons for designation as a national historic site are effectively communicated to the public; and
- all decisions and actions respect the site’s heritage values (including those not related to the reasons for designation) (PC, 2007a, p. 4).

Commemorative Integrity Statement
Developed by Parks Canada for national historic sites, it is a site specific statement of why a site has been designated by the Minister [responsible for Parks Canada] on the recommendation of the Historic Sites and Monuments Board of Canada. It identifies the resources and their values, the reasons for designation, and outlines objectives for the management of the site (PC, 2008, p. 85).

Cultural Landscape
Any geographical area that has been modified, influenced, or given special cultural meaning by people (PC, 1994, p. 119). Landscapes in the context of these Guidelines are exterior spaces that have been assigned cultural (including spiritual) meaning, such as an Aboriginal sacred site, or have been deliberately altered in the past for aesthetic, cultural, or functional reasons (PC, 2003, Guidelines for Landscapes).

Cultural Resource
A human work or a place which gives evidence of human activity or has spiritual or cultural meaning, and which has been determined to have historic value (PC, 1994, p. 119). Parks Canada may apply the term cultural resource to a wide range of resources in its Custody, including, but not limited to, cultural landscapes and landscape features, archaeological sites, structures, engineering works, artefacts, and associated records (p. 101).

Cultural Resource Management
Generally accepted practices for the conservation and presentation of cultural resources, founded on principles and carried out in a practice that integrates professional, technical and administrative activities so that the historic value of cultural resources is taken into account in actions that might affect them. In Parks Canada, Cultural Resource Management encompasses the presentation and use, as well as the conservation of, cultural resources (PC, 1994, p. 119).
Designated Place
Of a national historic site – refers to the place designated by the Minister responsible for Parks Canada on the recommendation of the Historic Sites and Monuments Board of Canada. Information on what constitutes the designated place for a particular historic site is drawn from the minutes of the Historic Sites and Monuments Board of Canada (PC, 2002, References - Glossary).

Ecological Integrity
For Parks Canada, “ecological integrity” means, with respect to a park, a condition that is determined to be characteristic of its natural region and likely to persist, including abiotic components and the composition and abundance of native species and biological communities, rates of change and supporting processes (DOJ, 2000, s. 2.1).

Heritage Area
A generic term used to signify those geographical areas which are included within the Parks Canada program. These include National Parks, National Historic Sites and Historic Canals, and National Marine Conservation Areas (PC, 2001, p. 62).

Heritage Values
Are attributes of a resource which have value. Heritage values derive from many sources, including historical associations, architectural features or significance, environmental importance, associations with the community, and continuity of use (PC, 2002, References - Glossary).

Historic/Historical
Of, relating to, or of the nature of, history, as opposed to fiction. “Historical” refers more broadly to what is concerned with history, whereas the term “historic” refers to having importance in, or influence on, history (PC, 1994, p. 120).

Historical or Cultural Value
Refers to the associations that a place has with past events and historical themes, as well as its capacity to evoke a way of life or a memory of the past. Historical or cultural value may lie in the age of a heritage district, its association with important events, activities, people or traditions; its role in the development of a community, region, province, territory or nation; or its patterns of use. Historical or cultural value can lie in natural or ecological features of the place, as well as in built features (Canada’s Historic Places, 2006, p. 43).

Interdisciplinarity
Occurs when people from different disciplines work together on a project and are “coordinated through a higher level concept” (Max-Neef, 2005, p. 7). This produces more interaction than multidisciplinarity, but lacks the integration of transdisciplinarity.

Level 1 (cultural resource)
A resource which is directly related to the reasons for the designation as a national historic site, as stated by the Historic Sites and Monuments Board of Canada (PC, 2002, p. I-2).
Level 2 (cultural resource)
A resource that is not of national historic significance may have historic value and thus be considered a cultural resource (PC, 1994, p. 107).

Multidisciplinarity
Occurs when people from different disciplines work on the same project, but not necessarily together because their work often lacks coordination. The “members carry out their analysis separately, as seen from the perspective of their individual disciplines, the result being a series of reports pasted together, without any integrating synthesis (Max-Neef, 2005, p. 6).

National Historic Site
A “historic place” as defined in the Historic Sites and Monuments Act or a place set aside as a national historic site under section 42 of the Canada National Parks Act. The name is commonly used to refer to the area administered by Parks Canada, or another owner, as a national historic site (PC, 2008, p. 87).

National Park
A national park named and described in Schedule 1 to the Canada National Parks Act or a part established pursuant to a federal-provincial agreement that is under the responsibility of the Parks Canada Agency and that is not described in Schedule 1 to the Canada National Parks Act (PC, 2008, p. 88).

Protected Heritage Area
a) areas that have been accorded “protected” status, because of their natural or cultural qualities, through the acquisition or application of land use controls;
b) as well as areas that have been recognized as having natural or cultural heritage value and which require some form of protected status in order to ensure their long-term protection (PC, 1994, p. 122).
Within the context of this project, a protected heritage area refers to an area set aside by a government authority to protect cultural and/or natural resources, and could include:
- national historic sites, national parks, or national marine conservation areas
- provincial or municipal historic places or natural areas
- other countries’ cultural, historic, or natural protected places

Transdisciplinarity
Different from multidisciplinarity and interdisciplinarity, project work amongst people from different disciplines “is the result of a coordination between all hierarchical levels” and results in “a different manner of seeing the world, more systemic and more holistic” (Max-Neef, 2005, p. 7 and p. 15).

Value
Aesthetic, historic, scientific, cultural, social, or spiritual importance or significance for past, present or future generations (PC, 2003, p. 2).
See also Heritage Values and Historical or Cultural Value. Within the context of this project, value can be assigned to both cultural and natural resources.
Values Based Management

A holistic approach to the management of the cultural, societal, political, environmental, economic, tangible, and intangible values articulated for a protected heritage area with the following considerations:

First, realize that all values of a place must be identified without giving preference to any one set. Second, understand and accept that values are socially constructed within discourses which strive to become hegemonic. Some of them may be reconciled with each but others may not. In a number of cases the differences can only be accepted. And third, accept that new meanings and values will be produced for a historic place in the future. Value formulation needs to be treated as a dynamic process, not as a set of static outcomes (Kerr, 2007, p. 7).
APPENDIX B: INTERVIEW PARTICIPANT CONSENT FORM

My name is Stephen Malins, and this research project is part of the requirement for a Master of Arts Degree in Environment and Management at Royal Roads University. My credentials with Royal Roads University can be established by telephoning: Dr. Lenore Newman, Program Head, Environment and Management, School of Environment and Sustainability -------- or emailing Dr. Newman at --------.

This document constitutes an agreement to participate in my research project, the objective of which to investigate Parks Canada’s management of the Cave and Basin National Historic Site of Canada, in order to propose a management system for the successful integration of cultural and natural resource management practices that will ensure the long-term protection of its historic and natural values. The sponsoring organization for my research is Parks Canada, through the Banff Field Unit Superintendent.

The research will consist of a semi-structured interview with open ended questions and is foreseen to last approximately one hour. The foreseen questions will refer to the integration of cultural and natural resource values and management practices, particularly at the Cave and Basin National Historic Site of Canada, and will include:

1. Why is protection of the cultural and/or natural resources important to you within a protected area – such as the Cave and Basin National Historic Site of Canada (Cave and Basin NHS)?

2. What are the main challenges that you see for protecting the cultural and natural resources within a protected area?

3. How would you describe the integration of cultural and natural resource values within a protected area you work with – such as the Cave and Basin NHS?

4. Which on the ground actions are being implemented to integrate cultural and natural resource values within the protected area you work with – or at the Cave and Basin NHS?

5. Which of these actions are successful and which actions are not?

6. Are there aspects of the management framework that hinder the integration of cultural and natural resource protection?

7. How would you measure the success of the integration of cultural and natural resource management within the protected area you work with – or at the Cave and Basin NHS?

8. Are there management approaches from your experience that could be transferable and provide for integration of cultural and natural resources values to the management of the Cave and Basin NHS?
In addition to submitting my final report to Royal Roads University in partial fulfillment for a Master of Arts Degree in Environment and Management, I will also be sharing my research findings with Parks Canada, through the Banff Field Unit.

Information collected will be utilized for my research project and will be retained for my future use in presentations or publications.

Information will be recorded in hand-written format and/or digitally recorded and, where appropriate, summarized, in anonymous format, in the body of the final report. Individuals may decline digital recording and participate with the questionnaire via written recording without prejudice. At no time will any specific comments be attributed to any individual unless specific agreement has been obtained beforehand. All documentation will be kept strictly confidential and securely stored.

A copy of the final report will be published. A copy will be housed at Royal Roads University, available online through UMI/Proquest and the Theses Canada portal and will be publicly accessible. Access and distribution will be unrestricted.

You are not compelled to participate in this research project. If you do choose to participate, you are free to withdraw at any time without prejudice. Similarly, if you choose not to participate in this research project, this information will also be maintained in confidence.

By signing this letter, you give free and informed consent to participate in this project.

Name (Please Print): _____________________________________________________________

Signed: _____________________________________________________________

Date: _______________________________________________________________
APPENDIX C: INDIVIDUAL INTERVIEW QUESTIONS

1. Why is protection of the cultural and/or natural resources important to you within a protected area – such as the Cave and Basin National Historic Site of Canada (Cave and Basin NHS)?

2. What are the main challenges that you see for protecting the cultural and natural resources within a protected area?

3. How would you describe the successful integration of cultural and natural resource values within a protected area you work with – such as the Cave and Basin NHS?

4. Which on the ground actions are being implemented to integrate cultural and natural resource values within the protected area you work with – or at the Cave and Basin NHS?

5. Which of these actions are successful and which actions are not?

6. Are there aspects of the management framework that hinder the integration of cultural and natural resource protection?

7. How would you measure the success of the integration of cultural and natural resource management within the protected area you work with – or at the Cave and Basin NHS?

8. Are there management approaches from your experience that could be transferable and provide for integration of cultural and natural resource values to the management of the Cave and Basin NHS?
APPENDIX D: FOCUS GROUP PARTICIPANT CONSENT FORM

My name is Stephen Malins, I would like to thank you for accepting my invitation to be part of my research project. This project is part of the requirement for a Master’s Degree in Environment and Management, at Royal Roads University. My credentials with Royal Roads University can be established by calling Dr. Lenore Newman, Program Head, Environment and Management, School of Environment and Sustainability ---------- or emailing Dr. Newman at --- -------.

The objective of my research project is to investigate Parks Canada’s management of the Cave and Basin National Historic Site of Canada, in order to propose a management framework for the successful integration of cultural and natural resource management practices for protected heritage areas that will ensure the long-term protection of historic and natural values. In addition to submitting my final report to Royal Roads University in partial fulfillment for a Master’s of Arts Degree in Environment and Management, I will also be sharing my research findings with my sponsoring organization Parks Canada, through the Banff Field Unit Superintendent. Information collected will be utilized for my research to complete my thesis project and will be retained for my future use in presentations or publications.

My research project will consist of a focus group session with open ended questions and is foreseen to last approximately three hours. The foreseen questions will refer to the integration of cultural and natural resource values and management practices in protected heritage areas, which may be applicable at the Cave and Basin National Historic Site of Canada.

You were asked to participate as a prospective participant because of your involvement in protected heritage area management.

Information will be recorded in hand-written format and/or digitally recorded and, where appropriate, summarized, in anonymous format, in the body of the final report. Individuals may decline digital recording and participate with the focus group session via written recording without prejudice. At no time will any specific comments be attributed to any individual unless specific agreement has been obtained beforehand. All documentation will be kept strictly confidential and securely stored.

A copy of the final report will be published. A copy will be housed at Royal Roads University, available on-line through UMI/Proquest and the Theses Canada portal and will be publicly accessible. Access and distribution will be unrestricted.

Please feel free to contact me at any time should you have additional questions regarding the project and its outcomes. I will contact you upon completion of my thesis for a formal debriefing – in-person or by phone.

While a conflict of interest situation is not anticipated during the interview, you are free to refrain from answering any of the questions.
You are not compelled to participate in this research project. If you do choose to participate, you are free to withdraw at any time without prejudice. If you choose to withdraw, any opinions and information already obtained will not be utilized in my thesis research. All information pertaining to you will be subsequently destroyed. Similarly, if you choose not to participate in this research project, this information will also be maintained in confidence.

By signing this form, you give free and informed consent to participate in this project.
Name: (Please Print): __________________________________________________
Signed: _____________________________________________________________
Date: ________________________________________________________________

☐ Yes – I provide my consent to have the focus group session digitally recorded.

☐ No – I do not provide my consent to have the focus group session digitally recorded.
APPENDIX E: FOCUS GROUP QUESTIONS FOR DISCUSSION

1. Would it make a difference to integrate the management of cultural resources and natural resources within a protected heritage area? How?

2. What are the opportunities to integrate the management of cultural and natural resources within a protected heritage area?

3. What are the impediments to integrate the management of cultural and natural resources within a protected heritage area?

4. How would you evaluate or measure the success of the integration of cultural and natural resource management within a protected heritage area?