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Applying Alternative Heritage Discourses to Heritage Management Practice: A Cross-Case Comparative  
Synthesis

A Thesis submitted in partial satisfaction of the requirements  
for the degree Master of Arts

in

Anthropology

by

Bridget Lawrence

Committee in charge:

Professor Isabel Rivera-Collazo, Chair  
Professor Geoff Braswell  
Professor Paul Goldstein

2019

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Chair

University of California San Diego

2019

## DEDICATION

I dedicate this to my family and friends who have always believed in me, to the teachers who have challenged me, and to the mentors who have guided me. I also dedicate this to Khaled; thank you for joining me on this adventure, for encouraging me every step of the way, and for always reminding me not to miss the forest for the trees.

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- Intergov: Intergovernmental Agency or Partnership, such as the European Union, or a project that multiple countries have agreed to invest in.
- Uni: University
- \* : This indicates an estimated budget based on personal communication with project leader (Meek 2018)
- HMP: Heritage Management Professional
- Non-HMP: Non-Heritage Management Professional
- WEB: Website
- CON: Conference
- AP: Academic Papers, such as may be published in a peer-reviewed journal
- WORK: Workshop
- EX: Exhibit or Gallery display
- SM: Social Media
- TOUR: Guided tours
- MAG: Magazine
- PRES: Public presentation
- B/L: Booklets or Leaflets
- RAD: Radio
- TV: Television
- NEWS: Newspaper
- EV: Public event
- V/SS: Video or Show Series
- N/ML: Newsletter or Mail List
- P/M: Postcards/ Mail to Government officials
- YT: Youtube
- POS: Posters

### From Text

- UNESCO: United Nations Educational, Scientific, and Cultural Organization
- ICOMOS: International Convention on Monuments and Sites
- IPCC: Intergovernmental Panel on Climate Change
- CCCA: The Society for California Archaeology's Climate Change and California Archaeology project
- CHERISH: Climate, Heritage, and Environments of Reefs, Islands, and Headlands project
- CITiZAN: Coastal and Intertidal Zone Archaeological Network
- HMS: Heritage Monitoring Scouts
- MASC: Monitoring the Archaeology of Sligo's Coastline
- REMAINS: Research and Management of Archaeological Sites in a Changing Environment and Society project
- SCHARP: Scotland's Coastal Heritage At-Risk Project

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ABSTRACT OF THE THESIS

Applying Alternative Heritage Discourses to Heritage Management Practice: A Cross-Case Comparative Synthesis

by

Bridget Lawrence

Master of Arts in Anthropology

University of California San Diego, 2019

Professor Isabel Rivera-Collazo, Chair

There is a prevailing discourse in cultural heritage management which privileges the investigation, interpretation, and conservation of heritage sites by a small group of heritage experts (Smith 2006). However, some heritage experts are challenging this discourse and recommending alternative heritage principles such as multivocality, providing more public access to heritage sites, and encouraging

non-heritage experts to define their own value and meaning of heritage (Smith and Wobst 2006a; Liebmann and Rizvi 2008). Such alternative discourses are gaining the attention of heritage management authorities, but there has been no comprehensive comparative analysis of case studies where alternative heritage management principles are an integral part of the research design to determine whether they are successful and what characteristics of such projects are contributing to their success. A cross-case comparative analysis of eleven heritage management projects with a common goal of recording or monitoring sites threatened by climate change reveals that including principles from alternative heritage discourses is linked to better heritage management outcomes.

## INTRODUCTION

It has been theorized that the transformation and reproduction of social structures occurs simultaneously (Bourdieu 1977:78), and that individuals cause structural change by manipulating the alternative, sometimes conflicting schemes of values available to them (Leach 1954:8). Heritage management changes in a similar way: conflicting discourses are translated into practice, and individuals influence the direction of heritage management by applying new theoretical positions and methodological techniques over time. This type of change is currently unfolding as heritage managers respond to the issue of climate change. Climate change has recently been recognized as a major threat to heritage sites worldwide (UNESCO World Heritage Centre 2008; Hollesen et al. 2018:582), and heritage managers are addressing the issue utilizing both what Laurajane Smith refers to as ‘authorized’ heritage discourse (Smith 2006) and alternative discourses that have been developed by Indigenous, postcolonial, and feminist theorists. However, it is not yet clear which discourse is dominating the response to climate change nor which heritage management practices have been most effective in addressing it.

The “authorized heritage discourse” as defined by Smith relies on the knowledge and power claims of experts to uphold Western elite cultural values at the cost of alternative ideas about heritage (Smith 2006). Alternative heritage discourses challenge the assumptions present in this ‘authorized’ discourse such as how heritage should be managed and how meaning and value are ascribed to cultural heritage (Harris 2006; Smith and Wobst 2006b:9; Preucel and Cipolla 2008:137-140). Elements from both discourses are utilized to address issues in heritage management, but there has never been a systematic evaluation of how each of these discourses affects the performance of heritage management projects. Some heritage managers wonder whether principles put forth by alternative discourses such as multivocality and community engagement are anything more than “an archaeological public relations exercise” (Simpson 2009:41) with “no tangible aim besides the tick-box success of quantity of audience” (Richardson and Almansa-Sanchez:203). Richardson and Almansa-Sanchez wonder, “Are we really always that successful? Or are we afraid of showing (and publishing) our failures?” (Richardson and

Almansa-Sanchez 2015:205). Projects which embrace multivocality, alternative interpretations of heritage, community participation, and other recommendations put forth by Indigenous, post-colonial, and feminist critiques have been evaluated to determine whether they share a common methodology (Tully 2007) and whether they are benefitting communities (Simpson 2009; Simpson and Williams 2013), but they have never been evaluated to determine whether or not they are meeting their goals (Gould 2016:8-12). Because of this, it has been argued that such projects should be systematically analyzed to establish how effective they are at addressing heritage management issues (Gould 2016:8-12; Simpson 2009:287), particularly the issue of climate change (Fatoric and Seekamp 2017:240).

In order to better understand how both ‘authorized’ and alternative discourses are influencing heritage management responses to climate change, heritage management projects which utilize elements from each discourse must be systematically compared. A cross-case synthesis is the best tool for such a comparison as this method allows for the side-by-side comparison of multiple case studies that have been designed and executed by different authors (Yin 2018). Most projects addressing climate change rely on expert researchers and the support of heritage management authorities such as government agencies, research institutions, and universities (Fatoric and Seekamp 2017:233; Carmichael et al. 2018:2), which raises the question: Are projects which rely on characteristics of ‘authorized’ heritage discourses more effective than those which embrace characteristics of alternative heritage discourses? Furthermore, which elements from each of these discourses is correlated to the most successful projects?

In order to answer these questions, a distinction between those projects which rely on ‘authorized’ heritage discourses and those which rely on alternative heritage discourses must be defined. Additionally, a common standard of success must be defined which is based on the research objectives of each project. Finally, specific characteristics of the two kinds of projects must be compared in order to identify whether any are correlated to high productivity. Once these are established, it can be determined whether projects which utilize ‘authorized’ and alternative heritage discourses are achieving different degrees of success and whether any elements of these projects are correlated with their success. Heritage managers have a professional duty to protect cultural heritage in the way that is mandated by international

and national institutions which contribute to the 'authorized' heritage discourse, but also have an ethical responsibility to acknowledge alternative heritage discourses. This analysis will illuminate how to best navigate 'authorized' and alternative heritage discourses to improve heritage management responses to climate change and other challenges in the future.

## **CHAPTER 2: HERITAGE DISCOURSES: A BALANCING ACT**

Central to the ‘authorized heritage discourse is the ‘conservation ethic’, the idea that archaeological resources should be conserved (Byrne 2008:230). This ‘conservation ethic’ is embraced by the United Nations Educational, Scientific and Cultural Organization (UNESCO), the International Convention on Monuments and Sites (ICOMOS), and national heritage institutions (Holtorf 2008:126), and is made explicit in the Society for American Archaeology’s first Principle of Archaeological Ethics (Society for American Archaeology 1996) and the World Archaeological Congress’s First Code of Ethics (World Archaeological Congress 1990). Fundamentally, the ‘authorized heritage discourse’ suggests that heritage belongs to the past, that heritage is of innate value to the world, that heritage reinforces a national identity, and that a small group of heritage experts can make claims about the meaning and value of heritage while mediating and regulating any alternative claims (Smith 2006:11-13; Byrne 2008:230-231; Davison 2008:34; Trigger 1984:356-358). The ‘authorized heritage discourse’ asserts a national or universal meaning on traditionally private sites, and at the same time ignores sites that are valued by local communities (Davison 2008:39). Organizations such as UNESCO, ICOMOS, and state cultural agencies have naturalized certain beliefs about cultural heritage, and these and other heritage institutions worldwide reinforce the “authorized” discourse about heritage (Smith 2006; Byrne 2008: 230-231; Thomas 2008:139). Where heritage management agencies are established, these agencies decide which sites are worthy of legal protection and recruit experts to survey, excavate, and supervise the restoration of these sites to the exclusion of non-authorized individuals (Byrne 2008: 230). Iterations of this process are taking place all over the world and enjoy the support of organizations such as UNESCO, the World Heritage Centre, and various state, research, and educational institutions.

Alternative heritage discourses are challenging the assumptions and assertions of the ‘authorized’ discourse. One such assertion is the knowledge and power claims of heritage experts. Indigenous archaeologists explain that for the Yolngu and Gidjingali people of Australia, ritual knowledge about the past is monitored and curated by certain clans or individuals (Clunies Ross 1989:165-166), and for the



Betsileo, the oldest males of the hold the authority to speak about the past (Raharijaona 1989:192). Furthermore, the supernatural is sometimes perceived as part of the natural (Smith 2006:283-284; Harris 2006:37), and science is no longer accepted as the only valid belief system (Thomas 2008:142). Pokotylo and Guppy found that the majority of British Columbians, a public with a high level of interest in archaeology, do not believe that archaeologists are the most knowledgeable interpreters of cultural heritage (Pokotylo and Guppy 1999:415). These critiques have led to new strategies of practicing and theorizing archaeology. Armstrong-Fumero and Hoil Gutierrez were able to bring together diverse stakeholders such as anthropologists, Maya-speaking communities, and state institutions to establish new models for collaborating with local communities and repatriating knowledge (Armstrong-Fumero and Hoil Gutierrez: 2010). In the Torres Strait, Brady and Crouch acknowledged the power inequalities between them and the Indigenous peoples and were able to move towards a “partnership archaeology” (Brady and Crouch 2010:417-418) that allowed Indigenous peoples and their interests to shape research questions.

Alternative heritage discourses also dispute the ‘conservation ethic’ and encourage heritage managers to critically reflect on conservation objectives before imposing them on heritage sites. It has been suggested that Western conservation principles may not translate well in developing countries where other priorities such as industry and infrastructure development may take precedence over the protection of cultural heritage sites (Byrne 2008:231). Furthermore, Indigenous critiques remind us that the conservation of national heritage may exclude those to whom it is personally valuable, as is often the case for indigenous groups (Byrne 2008:230; Preucel and Cipolla 2008:138-139; Smith and Wobst 2006b:9-10; Pearce 2013: 31-32). As Byrne puts it, “often the bones of their ancestors are on museum shelves, their religious sites are being grazed by cattle behind fences on private land, and they must pay an entry fee to visit former settlements turned into historical parks” (Byrne 2008:232). The consequences of this exclusion are embodied in “At the Museum”, which depicts a *tiospaye* assembling beneath a painted muslin pictograph in a museum. According to the artist Linda Haukaas, the clan has come dressed in the ceremonial regalia of their warrior societies “to view their history and discuss the communal memory of

past events” (Pearce 2013:31), and in this act are symbolically repatriating their heritage. Linda Haukaas, a Sicangu Lakota woman, views the relationship between museums and tribal people as evolving, but laments that important cultural and artistic legacies are inaccessible to tribal people because of distance or cost (Pearce 2013:31). Yet indigenous critiques remind us that there are other ways to celebrate heritage without restricting it: Anawak describes how the experience of camping at old Inuit sites was valuable not only to him and his children but also to visitors whom he was able to educate (Anawak 1989:49).



Figure 1: Linda Haukaas, "At the Museum", 2001. (Pearce 2013:30).

Other issues raised by alternative heritage discourses are the observation that past is not always perceived as separate from the present (Thomas 2008:142; Harris 2006:36; Zimmerman 2006:310), nor in a simple linear or cyclical form (Williams and Mununggurr 1989:73; Pina-Cabral 1989:64-68). Additionally, the arbitrary separation between ‘natural’ and ‘cultural’ heritage does not accurately reflect the history or value of a place (Nimura et al. 2017:2). For example, Williams and Mununggurr write that the Yulngu landscape evokes meaning and memory that is immensely important to the people living there, even though there may not be tangible cultural heritage present (Williams and Mununggurr 1989:79-80). Because of this, it has been argued that heritage should include natural resources and the environment (Jameson Jr. 2008:57). Recent scholarship also suggests that heritage is not static, but rather is contextual and multivalent (Mason 2008:100). History and cultural legacy are profoundly linked to

cultural identity (Raharijaona 1989: 190,192), which means that some groups have a history that differs from the national narrative established by heritage management professionals (Smith 2006:36-38; Jackson and Smith 2006: 339-341).). These tensions are embodied in Phoenix Park, Dublin, where, during the troubles, Chief Secretary Lord Cavendish and his Undersecretary Thomas Burke were stabbed to death by the Invincibles, a Fenian splinter group. Heritage management authorities avoided addressing the event save for posting newspaper clippings in the Visitor Centre, but eventually an unofficial cross marker was anonymously cut into the lawn to commemorate the murders. However, it is not clear whether the murders being commemorated are the murders of Lord Cavendish and Thomas Burke or the eight men who were executed for the crime, and still there exist alternative accounts and sentiments about both the marker and the event (Moles 2009). Alternative accounts of history are being acknowledged more frequently as multivocality is increasingly encouraged in heritage decision-making, even by those in positions of authority (Thomas 2008:142-143).

The tension between ‘authorized’ and alternative heritage discourses is still being played out in heritage management. Aspects of alternative heritage discourses such as multivocality are being adopted by institutions which are generally thought to adhere to ‘authorized’ heritage management discourses, such as English Heritage (Thomas 2008:142-145). However, non-heritage experts generally still feel unqualified to express their views regarding the value and meaning of cultural heritage (Schofield 2016:1), which suggests that more can be done to empower and include these voices in heritage management. On the other hand, there are instances where heritage management professionals who embrace alternative heritage discourses are drawing on practices established by ‘authorized’ heritage discourses. For example, in her analysis of community archaeology projects, which embrace the concept of multivocality to varying degrees (Marshall 2002; Richardson and Almansa-Sanchez 2015:194; Tully 2007:155), Faye Simpson suggests that community-based projects should seek the support of institutions and universities (2009:287) – which make up part of the heritage management ‘authority’ (Smith 2006; Byrne 2008: 230-231; Thomas 2008:139). Evidently, the tension between ‘authorized’ and alternative heritage discourses is leading to a gradual evolution in heritage management practices.

## 2.1: Climate Change and Heritage Management

One area where the tension between ‘authorized’ and alternative heritage is leading to changes in heritage management practices is in the management of heritage sites threatened by climate change. The most recent IPCC report confirms that there will be global changes in climate patterns in the coming years and that the geophysical consequences of these changes will interact with the physical and social environment in ways that will affect the risk experienced by populations worldwide (Oppenheimer et al. 2014). The report differentiates between hazards, which are defined as the effects of climate change on geophysical systems; vulnerability, which is related to the ways that human and socio-ecological systems are affected by climate change hazards; and risk, which is a product of the way that hazards and vulnerability interact in a certain area (Oppenheimer et al. 2014:1050). Therefore, when discussing climate change, it is important to note the potential vulnerability and hazards present in a location in order to determine the level of risk at that location. The hazards outlined by the IPCC include sea level rise, coastal flooding, storm surges, extreme precipitation, inland flooding, drought, rising ocean temperature, increasing frequency and intensity of extreme heat, increased ocean acidification, and loss of Arctic sea ice (Oppenheimer et al. 2014). Each of these interacts with the social, economic, environmental, and institutional vulnerability of region, and depending on the degree of exposure to each hazard and vulnerability, a region should expect a certain amount of risk.

Heritage sites are already being affected by environmental changes, and this issue is only expected to be exacerbated as climate change progresses in the coming decades (UNESCO World Heritage Centre 2008; Hollesen et al. 2018:582). Coastal heritage sites are being eroded by changing sea levels and precipitation patterns (Dawson 2013) and submerged sites are threatened by geophysical and geochemical changes (Wright 2016). The issue is made more difficult by the fact that even predictable environmental changes such as sea level rise affect regions in different ways, and these differential consequences are not yet fully understood (Carson et al. 2016). Inland sites are also threatened by changes

in precipitation, as flooding can seriously damage archaeological sites (Carmichael et al. 2017:2). Warming temperatures, retreating glaciers, reductions in snow-cover, and earlier spring melts are damaging well-preserved archaeological sites in mountainous regions (Bourgeois et al. 2007:461), and Arctic sites are threatened by rising air temperatures, permafrost thaw, fluctuations in precipitation, melting glaciers and rising sea levels, all of which cause irreversible damage to archaeological sites and material culture (Hollesen et al. 2018:582). The issue is compounded by the fact that there are places where site records are incomplete or out of date, and even where there are detailed site records, there is evidence that environmental conditions are changing so rapidly that survey updates will be necessary before their threat level can be evaluated (Dawson 2016; Ezcurra and Rivera-Collazo 2018; Hollesen et al. 2018; Daly 2011; Hambrecht and Rockman 2017; Rockman et al. 2016). The loss of these sites is particularly disturbing considering that archaeological sites provide insight into the ways that people have responded to and overcome threats such as environmental change in the past (Reeder-Myers, Rick, and Erlandson 2010:187; Rockman et al. 2016:3; Jackson, Dugmore, and Reide 2017:3-4; Sandweiss and Kelley 2012).

Heritage managers have addressed the issue in many ways, but typically focus on science, adaptation, mitigation, and communication (Hambrecht and Rockman 2017). Both ‘authorized’ and alternative heritage discourses are evident in these approaches, but most of the approaches are top-down, relying on experts to set research agendas and preserve archaeological sites (Carmichael et al. 2018:2; Fatoric and Seekamp 2017), and therefore appear to be drawing largely from ‘authorized’ heritage discourses. Heritage management institutions such as UNESCO, ICOMOS, the World Heritage Convention, the World Heritage Centre, the National Parks Service, and the University College London are also drawing largely on ‘authorized’ discourses, which influences the heritage management practices they adopt. In 2005, the World Heritage Convention assembled a working group of experts who detailed the nature and scale of the climate-related hazards threatening world heritage, and presently climate change is recognized as an ongoing threat to world heritage (UNESCO World Heritage Convention 2018). Several reports have been published addressing the issue including “Managing Disaster Risks for

World Heritage” (UNESCO World Heritage Centre et al. 2010), “Case Studies on Climate Change and World Heritage” (UNESCO World Heritage Centre 2007a), “Climate Change and World Heritage” (UNESCO World Heritage Centre 2007b), and “World Heritage and Tourism in a Changing Climate” (Markham et al. 2016). The World Heritage Centre’s “Policy Document on the Impacts of Climate Change on World Heritage Properties” encourages States Parties to monitor world heritage sites and record the local impacts of climate change in order to develop adaptation, mitigation, and management plans for other world heritage sites (UNESCO World Heritage Centre 2008). In the United States, the National Parks Service published a report explaining that the two primary considerations heritage managers should take regarding the issue of climate change are that “(1) cultural resources are primary sources of data regarding human interactions with environmental change; and (2) changing climates affect the preservation and maintenance of cultural resources” (Rockman et al. 2016). In the UK, the University College London released a statement with similar recommendations for mitigating the threat of climate change on the historic environment (Cassar 2005). Generally, ‘authorized’ heritage discourses center around expert-defined research agendas and methods. The qualification of such experts is taken for granted, there is little reference to partnering with community stakeholders, and there is no mention of accepting alternative interpretations or treatment of cultural heritage.

Projects which embrace alternative heritages differ from those developed utilizing ‘authorized’ heritage discourses in predictable ways. For example, including community stakeholders and encouraging them to contribute to heritage management decisions is an important pillar of managing heritage threatened by climate change (Carmichael 2015). Community archaeology is a popular theoretical and methodological platform for addressing climate change issues while embracing elements of alternative heritage discourses (Rizvi 2008). Community archaeology is described as the diversification of voices in the interpretation of tangible and intangible cultural heritage (Simpson 2009; Tully 2007) or as the relinquishing of partial or total control of aspects of an archaeological project to non-professional community members (Marshall 2002; Hart 2009). Examples of this include the Scotland Coastal Heritage At Risk Program (SCHARP), which encouraged the public to not only record and monitor heritage sites

but also place a personal value on each (Dawson 2016). Another heritage project in Australia offered Indigenous rangers a tool to help them define risk and the value of cultural heritage sites under their protection so that they could make informed cultural heritage management decisions based on their own priorities and beliefs (Carmichael et al. 2018). In Florida, heritage management professionals from the Florida Public Archaeology Network partnered with local organizations to establish and support a network of volunteer Heritage Management Scouts who record and monitor hundreds of archaeological sites across the state (Florida Public Archaeology Network 2018). Recording and monitoring threatened archaeological sites and involving community members and organizations in the heritage management process are priorities for projects which draw on alternative heritage discourses.

Heritage managers responding to the issue of climate change are drawing on both ‘authorized’ and alternative heritage discourses, and the influence of each heritage discourse is evident in the practices that they choose. ‘Authorized’ heritage discourses promote projects which are defined and executed by experts. Apart from limited outreach or education programs, the experts do not engage with community members or seek out alternative interpretations of heritage. Alternative heritage discourses advocate for the inclusion of community members and organizations by running extensive outreach, education, and training programs and by encouraging volunteers to actively participate in the heritage management process by recording and evaluating heritage sites. ‘Authorized’ and alternative heritage discourses have led heritage managers to address the issue of climate change in different ways, but there is one critical overlap in the approaches: each prioritizes the recording and monitoring of heritage sites threatened by climate change.

## 2.2: Heritage Discourses Translated into Practice

Researchers have noted that ‘authorized’ and alternative discourses are influencing the discourse surrounding climate change in heritage management. For example, a recent literature review of climate change-related archaeological research revealed that heritage managers addressing climate change rarely

account for community needs or values and that heritage management work is undertaken primarily by experts employed by higher education, research, or governmental institutions (Fatorić and Seekamp 2017: 233,240). It has also been argued that most approaches are top-down, designed and executed by government agencies and academic researchers, with only a few examples where community members are involved in the heritage management process (Carmichael et al. 2018:2). The tension between ‘authorized’ and alternative heritage discourses is undeniably influencing the discourse around climate change and heritage management and may impact the future of heritage management.

Although researchers have noted trends in heritage managers’ responses to climate change (Fatorić and Seekamp 2017: 233,240; Carmichael et al. 2018:2), it is difficult to determine whether this represents a tendency towards the adoption of ‘authorized’ or alternative heritage discourses. Heritage management projects draw elements from both discourses, which makes it difficult to distinguish between conventional projects, or those which rely primarily on ‘authorized’ heritage discourses, and alternative projects, which draw elements from alternative heritage discourses. However, in the context of climate change and heritage management, several differences have been established between conventional and alternative projects. Primarily, conventional and alternative heritage management projects have different participants. Conventional heritage management projects employ experts to design and execute research agendas (Fatorić and Seekamp 2017: 233,240; Carmichael et al. 2018:2; UNESCO World Heritage Convention 2018), while alternative projects involve community members or non-experts in the research and management of heritage sites (Carmichael 2015; Rizvi 2008). Secondly, conventional projects primarily seek the support of funding institutions such as governmental agencies, research institutes and universities and pursue limited outreach and education strategies (Hambrecht and Rockman 2017; Fatorić and Seekamp 2017: 233). Alternative projects may also seek the support of funding institutions (Simpson 2009:287) but invest substantially in partnerships with community organizations and local interest groups (Simpson 2009:281; Jameson 2008:58-60). Furthermore, the qualification of the expert participants in conventional projects may be taken for granted (Smith 2006:51), but alternative projects often include



training opportunities for both heritage management experts and community participants (Ostrich 2018:22; Miller and Murray 2018:236-238; Hambly 2017:2-18).

In short, ‘authorized’ and alternative heritage discourses appear to be influencing the management of heritage sites threatened by climate change (Fatorić and Seekamp 2017; Carmichael et al. 2018), but it is not evident whether one set of practices is more readily adopted than the other. More importantly, it is not evident if either of these discourses is yielding effective heritage management strategies. It has been noted that each project which involves the community in collaborative archaeological research represents a single case study (Brady and Crouch 2010:415), which makes it difficult to evaluate their efficacy compared to other projects. In fact, community-based archaeological projects have never been systematically evaluated to determine whether they are meeting their research objectives (Gould 2016:8-12). It has been argued that both heritage management projects which address climate change and community-based or collaborative heritage management projects should be evaluated to determine what benefits they provide (Fatorić and Seekamp 2017:240; Simpson 2009:287). At present, the efficacy of conventional and alternative projects is unknown. How do they compare, and what elements of ‘authorized’ and alternative heritage discourses are contributing to the success of heritage management projects?

Both conventional and alternative heritage management projects prioritize the recording or monitoring of heritage sites threatened by climate change, which indicates that the two approaches to heritage management may be compared and evaluated according to their demonstrated capacity to record or monitor sites which are threatened by climate change. Additionally, while the two heritage discourses overlap to some degree in practice, as is evidenced by the promotion of multivocality in heritage interpretation by English Heritage and the recommendation that community archaeology projects seek the support of institutions considered part of the heritage authority (Simpson 2009:287; Smith 2006; Byrne 2008: 230-231; Thomas 2008:139), there are also distinctive differences between the way the two discourses are translated into practice. Conventional and alternative heritage management projects include different participants, may seek out different types of partnerships or affiliations, and may have different

approaches to training project participants. A comparative case study analysis will identify how effective conventional and alternative heritage management projects are at meeting their research objectives and which elements of ‘authorized’ and alternative heritage discourses are associated with the most effective projects.

## **CHAPTER 3: SYSTEMATIC COMPARATIVE ANALYSIS OF CONVENTIONAL AND ALTERNATIVE HERITAGE MANAGEMENT RESPONSES TO CLIMATE CHANGE**

Case studies provide an opportunity for researchers to gather highly detailed information about a specific instance, setting, person, or event (Maxwell and Chmiel 2014:26). Each heritage management project which addresses the issue of climate change, whether it draws on ‘authorized’ or alternative heritage discourses, represents a single case study (Brady and Crouch 2010:415; Gould 2016:11-12). In order to draw broader conclusions about the efficacy of these heritage management projects, the projects must be systematically analyzed (Fatorić and Seekamp 2017:240; Simpson 2009:287; Gould 2016:8-12; Brady and Crouch 2010:415). Tully has conducted a systematic comparison of the methodologies of community-based archaeological and museological projects to a methodological design developed at the site of Qesir, Egypt (Tully 2007; Moser et al. 2002) which is a good model for comparing multiple projects across many categories. A similar systematic comparative analysis of conventional and alternative heritage management projects will shed light on which projects are most effective at achieving their research objectives and what elements from ‘authorized’ and alternative heritage discourses are associated with this success. Once this is established, heritage managers will better understand how ‘authorized’ and alternative heritage discourses translate into practice and will be able to make informed decisions about the future of heritage management.

### 3.1 Case Studies

As previously stated, both conventional projects, which draw heavily on ‘authorized’ heritage discourse, and alternative projects, which draw elements from alternative heritage discourses, are addressing the issue of climate change by recording or monitoring threatened heritage sites (UNESCO World Heritage Centre 2008; Rockman et al. 2016; Cassar 2005; Dawson 2016; Carmichael et al. 2018; Florida Public Archaeology Network 2018). This common ground was the basis for the systematic

comparative analysis. Only those projects which responded to the threat of climate change primarily by recording or monitoring potentially threatened heritage sites were included in the analysis.

To find all projects which responded to the threat of climate change with the primary objective of recording or monitoring potentially threatened sites, an initial literature review was conducted and online databases were systematically reviewed for any mention of the following sets of keywords: “archaeology” and “climate change”, “community archaeology” and “climate change”, “public archaeology” and “climate change”, “citizen science” “archaeology” and “climate change”, and “volunteer” “archaeology” and “climate change”. The search engines used were Web of Science, which hosts a database of peer-reviewed publications, Google Scholar, which includes both peer-reviewed and non-peer-reviewed publications, and Google. Non-peer reviewed websites and documents were included in order to account for those projects that are not associated with academic and governmental organizations and those that publish primarily in newspapers, magazines, blogs, or other popular media. Fifteen projects which fit these inclusion criteria were found, but after further investigation it was determined that only eleven had enough documented information to be included in the cross-case synthesis.

Table 1: List of case studies included for comparative analysis.

<b>Case Studies</b>
Altai Mountains Project
Australian Ranger Project
Arfordir
Climate Change and California Archaeology Project (CCCA)
Climate, Heritage and Environments of Reefs, Islands, and Headlands (CHERISH)
Coastal and Intertidal Zone Archaeology Network (CITiZAN)
Heritage Monitoring Scouts Program (HMS)
InSituFarms
Monitoring the Archaeology of Sligo's Coastline (MASC)
Research and Management of Archaeological Sites in a Changing Environment and Society (REMAINS)
Scotland's Coastal Heritage at Risk Program (SCHARP)

### 3.2 Comparative Analysis

The eleven case studies were compared according to five main categories: Participant Information, Affiliations, Training, Funding, and Productivity. The first three categories were established to address the observation that conventional and alternative projects had different participants and tended to prioritize different partnerships or affiliations and have different approaches to training participants. Funding was included as a category of comparison in order to explore the common argument that funding is a major limitation to the success of heritage management projects (Dawson et al. 2017; Bonsall and Moore 2015; Huckfield 2015; Newland et al. 2017). Productivity was designed to evaluate the efficacy of each project in terms of sites recorded or monitored, which reflects the primary objective of each of the case studies.

Participant information for each case study was evaluated using six criteria: the number of total participants, the number of participants with no formal archaeological training, which will be referred to

as non-heritage management professionals, the number of participants with some formal archaeological training, which will be referred to as heritage management professionals, what activities non-heritage management professionals perform, what activities heritage management professionals perform, and how the project was advertised. It should be noted that students fall into the category of heritage management professionals, and any evaluation, external or internal, qualifies for the purposes of this analysis. These criteria were included under the umbrella category of participant information because each of these criteria reveals something about the participant demographic and how participants and other individuals were recruited for or informed about the project. The total number of participants was recorded in order to calculate the number of sites recorded per participant, one standard of measuring the efficacy of the case studies. The number of non-heritage management professionals and heritage management professionals were recorded in order to distinguish between conventional and alternative projects, as conventional projects rely on expert participants (Smith 2006:51) and alternative projects involve community members or non-heritage management professionals in the heritage management process (Rizvi 2008; Armstrong-Fumero and Hoil Gutierrez: 2010; Brady and Crouch 2010:417-418). The activities of non-heritage management professionals and heritage management professionals were recorded in order to determine the degree to which non-heritage management professionals were contributing to major project objectives in comparison to heritage management professionals: was this a collaborative partnership (Brady and Crouch 2010:417-418), or were non-heritage management professionals only peripherally involved? This was helpful for distinguishing between conventional and alternative projects, as conventional projects typically exclude non-heritage management professionals from heritage management activities while alternative projects include non-heritage management professionals to varying degrees (Marshall 2002; Richardson and Almansa-Sanchez 2015:194; Tully 2007:155). The media by which the project was advertised was recorded in order to establish what audience each project was catering to, as advertising serves to communicate information and recruit participants.

The affiliations, or partnerships, of each project was evaluated based on two criteria: the number of formal affiliations and number of informal affiliations. Organizations that were explicitly mentioned as

contributing funding or significant resources to the project were considered formally affiliated to the project. Informal affiliations include those organizations which were described as stakeholders or any organizations acknowledged as contributing to the project in an undefined way. Several of the projects offered lectures and presentations to schools, clubs, and other organizations that were not engaged in the project, but these organizations were not included as formal or informal affiliations unless they contributed to the project in some way. Formal and informal affiliations with other organizations were considered in order to evaluate Jameson Jr.'s observation that community partnerships are linked to the success of heritage management projects (Jameson Jr. 2008:58-60) and Simpson's observation that partnering with institutions such as governmental agencies, research institutions, and universities which provide resources and funding support are correlated to the success of heritage management projects (Simpson 2009:287). This evaluation also explores the observation that alternative projects seek out community partnerships (informal affiliations) (Simpson 2009:281; Jameson 2008:58-60), but conventional projects are less invested in gaining community support and focus more on attracting the support of funding institutions (formal affiliations) (Hambrecht and Rockman 2017; Fatoric and Seekamp 2017:233).

Training was evaluated with three questions: do non-heritage management professionals have the opportunity to receive training, do heritage management professionals have the opportunity to receive training, and what is the format of the training? The Society for American Archaeology includes a principle of Training and Resources in its "Principles of Archaeological Ethics": "Given the destructive nature of most archaeological investigations, archaeologists must ensure that they have adequate training, experience, facilities, and other support necessary to conduct any program of research they initiate in a manner consistent with the foregoing principles and contemporary standards of professional practice." (Society for American Archaeology 1996). This only refers to archaeologists, but Mapunda and Lane argue that "Researchers should be obliged to inform, train, and seek to educate local people, so that they become aware of both the scientific significance of archaeological materials and the historical and cultural ties which link them to these remains" (Mapunda and Lane 2004:214). It is hypothesized that

conventional projects would invest less in training as they rely on experts which are expected to be highly qualified for heritage management work (Smith 2006:51), however this may not be true for every conventional project. Furthermore, as alternative projects involve non-heritage management professionals in heritage management, it is hypothesized that they will invest in training these participants who may have never participated in heritage management before. Yet, no research has been conducted to determine whether conventional projects and alternative projects incorporate training differently in their project designs. As training is not a major pillar of either ‘authorized’ or alternative discourses, it cannot be used to distinguish between conventional and alternative projects, but it can reveal information about how conventional and alternative projects approach training and whether this contributes to the success of their projects.

Funding information for each project was collected and translated into dollar amounts based on the exchange rate on December 4, 2018. This category is not useful for distinguishing between conventional and alternative projects as there is no research which suggests that ‘authorized’ and alternative heritage discourses promote different project budgets. However, some project leaders, particularly those leading alternative projects, have observed that funding is a limiting factor in the success of their heritage management projects (Dawson et al. 2017; Bonsall and Moore 2015; Huckfield 2015; Newland et al. 2017), so this category will be useful for exploring this observation.

Finally, the productivity of each of the case studies was determined according to the common research objective: recording and monitoring heritage sites threatened by climate change. Productivity was evaluated according to two calculations: the number of sites recorded per year and the number of sites recorded per participant. The number of sites recorded was determined to be a better standard for success than the area covered for several reasons: some areas have more heritage sites than others, most projects did not record and monitor sites in spatial increments and therefore did not record the total spatial area covered, and the stated goals were to record threatened sites, not regions. Sites recorded per year was chosen as a standard of success so that new projects would not be at a disadvantage to projects that had been operating for longer periods of time. Sites recorded per participant was chosen as a standard of



success so that projects with fewer participants would not be at a disadvantage to those that had more participants. Each case study was evaluated according to these two standards of productivity, and those with the highest number of sites recorded per year or highest number of sites recorded per participant were determined to be achieving their goal of recording or monitoring sites threatened by climate change. Therefore, the three highest-ranking projects according to each measurement (sites per year and sites per participant) were considered the most effective projects. When productivity is used to compare the case studies, it is possible to determine whether conventional or alternative projects are more effective and what other factors (such as participant information, affiliations, training, or funding) may be correlated to high-achieving projects.

Information about the participant information, affiliations, training, funding, and productivity of each project was collected and recorded side-by-side in a table to facilitate comparison (Table 1). Information was coded by the reviewer to facilitate comparison between different authors and styles of writing. For example, “contribute to the long-term monitoring of change of these features by submitting survey updates” (Ostrich 2018:10), “participated in the surveys” (Society for California Archaeology 2018) and “training a force of volunteers to monitor sites and record threats,” (Miller and Murray 2017:245) were all coded as a “monitor/site survey” activity. Once the available data was collected, four of the original fifteen case studies were excluded on the basis that they did not have documentation which included enough information about each of the categories analyzed, and eleven projects were included in the final analysis.

Conventional and alternative projects were then distinguished according to the participant information collected. Conventional and alternative projects differ in the participants they include and often the affiliations they seek and the training they provide. However, the most critical pillar of ‘authorized’ heritage discourses is that heritage experts design and conduct research (Smith 2006:51), and the most common recommendation from alternative discourses is that non-expert community members should be included in heritage management practices (Smith 2006:11-13; Byrne 2008:230-231; Davison 2008:34; Trigger 1984:356-358). For this reason, conventional projects were preliminarily defined as

those which do not include non-heritage management professionals, and alternative projects were defined as those which do include non-heritage management professionals.

Conventional and alternative projects were then compared across all five categories to determine what characteristics they had in common and whether conventional or alternative projects were achieving their goal of recording sites at higher rates. The projects with the most sites recorded per participant were then compared to the rest of the case studies across all categories, and the projects with the most sites recorded per year were compared to the rest of the case studies across all categories. The purpose of this comparison was to identify whether any of the other characteristics of these projects (participant information, affiliations, training, funding) were held in common by the highest-ranking projects in each category. If it could be established that the highest-achieving projects held certain characteristics in common, it was argued that these characteristics contributed to the success of the project.

## **CHAPTER 4: RESULTS**

A preliminary analysis indicated that four projects included only heritage management professionals and therefore met the criteria of conventional projects and that seven projects included non-heritage management professionals and therefore met the criteria of alternative projects. However, further analysis revealed that two of the alternative projects did not have any published record of the activities of non-heritage management professionals, nor did they indicate how many were included (the Altai Mountains project and CCCA). Since the activities of the non-heritage management professionals were not recorded, it could not be determined whether they participated in the project design and execution or whether they were included in an outreach or education program that was peripheral to the project. Because of this, these two projects were moved to the category of conventional projects. Additionally, a review of the literature revealed that all the heritage management professionals of one of the conventional projects (the Australian Rangers project) were Indigenous Rangers. Although they are stewards of the area and as such are considered heritage management professionals, the entire project (besides the initial concept, which was conceived by researchers from Australian universities) was designed and executed by Indigenous peoples according to their own heritage priorities. This suggests that this project draws significantly from principles of alternative heritage discourses, and because of this the Australian Ranger project was included in the list of alternative projects.

The projects which were ultimately defined as conventional included the Altai Mountains Project, the California and Climate Change Archaeology Project (CCCA), the Climate, Heritage, and Environment of Reefs, Islands, and Headlands Project (CHERISH), InSituFarms, and the Research and Management of Archaeological Sites in a Changing Environment and Society Project (REMAINS). The alternative projects were the Australian Rangers Project, Arfordir, the Coastal and Intertidal Zone Archaeology Network (CITiZAN), the Heritage Management Scouts Program (HMS), Managing the Archaeology of Sligo's Coastline, and Scotland's Coastal Heritage At Risk Program (SCHARP) (Table

2). Notably, there are more alternative projects recording and monitoring heritage sites threatened by climate change than conventional projects.

Table 2: Conventional and Alternative Projects.

<b>Conventional Projects</b>	<b>Alternative Projects</b>
The Altai Mountain Project	Arfordir
Climate Change and California Archaeology Project (CCCA)	The Australian Ranger Project
Climate, Heritage and Environments of Reefs, Islands, and Headlands (CHERISH)	CITiZAN
InSituFarms	HMS
Research and Management of Archaeological Sites in a Changing Environment and Society (REMAINS)	MASC
	SCHARP

The three highest-ranking projects according to sites recorded per participant were the Altai Mountain Project, CITiZAN, and the Australian Ranger Project. They recorded approximately 12, 4, and 2 sites per participant, respectively. The Altai Mountain Project represents a major outlier at 12 sites per participant (Table 3). The three highest ranking projects according to sites recorded per year were CITiZAN, HMS, and SCHARP, which recorded approximately 1268, 432, and 369 sites per year. CITiZAN represents a major outlier, recording 1268 sites per year (Table 3). Five of the six highest-ranking projects were alternative projects, and one was a conventional project.

Table 3: Projects which recorded the most sites per participant and sites per year.

<b>Project</b>	Altai Mount ains Project	CITIZ AN	Austral ian Ranger Project	HMS	SCHAR P	REMA INS	CC CA	ARFOR DIR	MASC	CHERI SH	InSituFa rms
<b>Sites Record ed per Particip ant</b>	12.14	3.93	2.35	1.9	1.16	0.64	0.49	0.47	0.21	0.17	0.4
<b>Project</b>	CITIZ AN	HMS	SCHA RP	Altai Mount ains Project	ARFOR DIR	Austral ian Ranger Project	CC CA	MASC	REMA INS	CHERI SH	InSituFa rms
<b>Sites Record ed per Year</b>	1265	432	369	176	60.6	30	15.1 7	9	3.5	3	0.33

#### 4.1 Comparing Alternative and Conventional Projects

The alternative and conventional groups had overlapping ranges of total participants, non-heritage management professional participants, and heritage management professional participants. However, the range of total participants was higher for alternative projects, the range of non-heritage management professional participants was higher for alternative projects, and the range of heritage management professional participants was higher for conventional projects. Non-heritage management professionals from the alternative projects monitored or surveyed sites, but the Australian Ranger project did not include any non-heritage management professionals so no common activity could be established for every alternative project. No conventional projects included non-heritage management professionals, so no

common activity could be established for this category either. All heritage management professionals participating in alternative projects wrote reports, and all heritage management professionals from conventional projects monitored or surveyed sites. Finally, there was no advertising strategy that was held in common by every alternative project, but all conventional projects published academic papers as part of their advertising strategy (See Table 4).

Table 4: Participant Information for Alternative and Conventional Projects.

	<b>Common Alternative</b>	<b>Common Conventional</b>
<b>Number of Total Participants</b>	31-1264	5-186
<b>Number of Non-HMP participants</b>	0-1233	0
<b>Number of HMP participants</b>	16-52	5-185
<b>What activities do Non-HMP perform?</b>		N/A
<b>What activities do HMP perform?</b>	Write Reports	Monitor/ Site Survey
<b>How was it advertised?</b>		AP

The comparison of alternative and conventional projects across the categories of formal and informal affiliations indicated that the alternative projects had a higher range of both formal and informal affiliations. In fact, alternative projects had on average three times as many informal affiliations as conventional projects (Table 5).

Table 5: Affiliations for Alternative and Conventional Projects.

	<b>Common Alternative</b>	<b>Common Conventional</b>
<b>Formal Affiliations</b>	2-8	1-5
<b>Informal Affiliations</b>	0-69	0-16

All the non-heritage management professionals had the opportunity to receive training in the alternative projects, but since the Australian Ranger project had no non-heritage management professional

participants, no commonality between all six alternative projects could be established. No conventional projects offered training to non-heritage management professionals because they did not have any non-heritage management professional participants. Both the alternative projects and the conventional projects differed in whether they offered training to heritage management professionals and how the training was formatted, so no common ground or meaningful difference could be established for these categories (Table 6).

Table 6: Training for Alternative and Conventional Projects.

	<b>Common Alternative</b>	<b>Common Conventional</b>
<b>Do Non-HMP Receive Training?</b>		N/A
<b>Do HMP Receive Training?</b>		
<b>What is the Format of Training?</b>		

The alternative and conventional projects overlapped in the category of funding, but alternative projects had a lower range of total funding than conventional projects (See Table 7).

Table 7: Funding for Alternative and Conventional Projects.

	<b>Common Alternative</b>	<b>Common Conventional</b>
<b>Funding Amount</b>	\$0-\$3,560,212	\$0-\$5,880,019

There was overlap in every element of the productivity category, but meaningful trends were established. Alternative projects recorded a higher range of sites per year, a higher range of total participants than conventional projects, and a higher range of sites recorded per year. Conventional projects had a higher range of years in operation and higher range of sites recorded per participant. The Altai Mountain project and CITiZAN represent major outliers at 12.14 sites recorded per participant and 1,265 sites recorded per year, respectively. If these two outlier projects are removed from consideration,

the alternative projects recorded on average four times as many sites per participant and five times as many sites per year as the conventional projects (See Table 8).

Table 8: Productivity of Alternative and Conventional Projects.

	<b>Common Alternative</b>	<b>Common Conventional</b>
<b>Number of Sites Recorded</b>	4-2289	2-286
<b>Number of Years in Operation</b>	1-5	2-6
<b>Number of Total Participants</b>	31-1264	5-186
<b>Sites Recorded Per Participant</b>	0.21-3.93	0.17-12.14
<b>Sites Recorded Per Year</b>	9-1265	0.33-176

Heritage management professional participants of alternative projects wrote reports and conventional projects allowed heritage management professional participants to perform monitor or survey sites. Each of the conventional projects also published academic papers as part of their advertising strategy. The alternative projects had a higher range of total participants and non-heritage management participants, and the conventional projects had a higher range of heritage management professional participants (See Table 4). Alternative projects had a higher range of formal and informal affiliations than the conventional projects (See Table 5). Conventional projects had a higher range of total funding than alternative projects (See Table 7). Alternative projects recorded a higher range of sites, had a higher range of total participants than conventional projects, and had a higher range of sites recorded per year. Conventional projects had a higher range of years in operation and higher range of sites recorded per participant (See Table 8). A side-by-side comparison of alternative and conventional projects reveals that they are different in several ways (See Table 9).



Table 9: Final comparison of Alternative and Conventional Projects, including only those categories with meaningful similarities or differences.

	<b>Common Alternative</b>	<b>Common Conventional</b>
<b>Number of Total Participants</b>	31-1264	5-186
<b>Number of Non-HMP participants</b>	0-1233	0
<b>Number of HMP participants</b>	16-52	5-185
<b>What activities do HMP perform?</b>	Write Reports	Monitor/ Site Survey
<b>Formal Affiliations</b>	2-8	1-5
<b>Informal Affiliations</b>	0-69	0-16
<b>Funding Amount</b>	\$0-\$3,560,212	\$0-\$5,880,019
<b>Number of Sites Recorded</b>	4-2289	2-286
<b>Number of Years in Operation</b>	1-5	2-6
<b>Sites Recorded Per Participant</b>	0.21-3.93	0.17-12.14
<b>Sites Recorded Per Year</b>	9-1265	0.33-176

#### 4.2 Comparing Projects with the Most Sites Recorded per Participant to Other Projects

The Altai Mountains Project, CITIZAN, and the Australian Ranger Project recorded the highest number of heritage sites per participant, at 12.14, 3.93, and 2.35 sites per participant, respectively. These three high-ranking projects had a lower range of total participants, non-heritage management professional participants, and heritage management professional participants than the other eight projects. The non-heritage management professionals did not perform any common activities between the three highest-ranking projects or between the eight lower-ranking projects. Heritage management professional participants from the three highest-ranking projects each monitored or surveyed sites and wrote reports, but no common activity was found between the eight other projects' heritage management professional participants. Finally, the three highest-ranked projects each advertised their projects at conferences and in

academic papers, but no common medium of advertising could be established for the other eight projects (See Table 10).

Table 10: Participant Information for projects which recorded the most sites per participant and those which did not.

	<b>Common to Highest-Ranking Projects by Sites/Participant</b>	<b>Common to Lower-Ranking Projects</b>
<b>Number of Total Participants</b>	20-51	5-1264
<b>Number of Non-HMP participants</b>	0-531	0-1233
<b>Number of HMP participants</b>	20-52	5-186
<b>What activities do Non-HMP perform?</b>		
<b>What activities do HMP perform?</b>	Monitor/ Site Survey, Write Reports	
<b>How was it advertised?</b>	CON, AP	

The three projects which recorded the highest number of sites per year also had a lower range of both formal and informal affiliations than the eight lower-ranking projects in this category (Table 11).

Table 11: Affiliations for projects which recorded the most sites per participant and those which did not.

	<b>Common to Highest-Ranking Projects by Sites/Participant</b>	<b>Common to Lower-Ranking Projects</b>
<b>Formal Affiliations</b>	5-7	1-8
<b>Informal Affiliations</b>	0-18	0-69

Training opportunities for non-heritage management professionals and heritage management professionals varied both among the three highest ranking projects and among the eight lower-ranking projects, so no meaningful commonality among the projects or difference between the projects could be

established. Furthermore, the highest-ranking projects did not share common training formats and the lower-ranking projects also did not share common training techniques (Table 12).

Table 12: Training for projects which recorded the most sites per participant and those which did not.

	<b>Common to Highest-Ranking Projects by Site Per Participant</b>	<b>Common to Lower-Ranking Projects</b>
<b>Do Non-HMP receive training?</b>		
<b>Do HMP receive training?</b>		
<b>What is the format of training?</b>		

The highest-ranking projects recorded a lower funding range than the other eight lower-ranking projects (Table 13).

Table 13: Funding for projects which recorded the most sites per participant and those which did not.

	<b>Common to Highest-Ranking Projects by Sites/Participant</b>	<b>Common to Lower-Ranking Projects</b>
<b>Funding Amount</b>	\$368,500-\$3,560,212	\$0-\$5,880,019

Overall, the three projects which recorded the highest number of sites per participant had a lower range of total participants, non-heritage management professional participants, and heritage management professional participants than the other eight projects (Table 10). They also had a lower range of formal and informal affiliations than the eight lower-ranking projects (Table 11). The highest-ranking projects also had a lower range of total funding (Table 13). The highest-ranking projects in this category recorded the most sites per participant with generally fewer participants and affiliations using a lower range of funding in a shorter time period (Table 14).

Table 14: Final comparison of projects which recorded the most sites per participant and those which did not. Only those categories with meaningful similarities or differences are included.

	<b>Common to Highest-Ranking Projects by Sites/Participant</b>	<b>Common to Lower-Ranking Projects</b>
<b>Number of Total Participants</b>	20-51	5-1264
<b>Number of Non-HMP participants</b>	0-531	0-1233
<b>Number of HMP participants</b>	20-52	5-186
<b>Formal Affiliations</b>	5-7	1-8
<b>Informal Affiliations</b>	0-18	0-69
<b>Funding Amount</b>	\$368,500-\$3,560,212	\$0-\$5,880,019

#### 4.3 Comparing Projects with the Most Sites Recorded per Year to Other Projects

The three projects which recorded the most heritage sites per year were CITiZAN, HMS, and SCHARP with 1,265, 432, and 369 sites per year, respectively. The three highest ranking projects had a higher range of total participants and non-heritage management professional participants than the eight other projects, but a lower range of heritage management professional participants than the eight lower-ranking projects. Additionally, participants of each of the three highest-ranking projects performed several of the same activities. Non-heritage management professional participants from these three projects created records, monitored or surveyed sites, and communicated with the media about the project. Heritage management professional participants from the highest-ranking projects trained volunteers, wrote reports, and organized talks and events. Furthermore, each of the three highest-ranking projects utilized radio, social media, websites, and conferences to advertise. No common activities were established for non-heritage management professionals or heritage management professionals for the other eight projects, and these eight projects also had no common advertisement strategy. Because of this, it is difficult to establish meaningful differences between the activities and advertising of the highest- and lowest-ranking projects. (Table 15).

Table 15: Participant Information for projects which recorded the most sites per year and those which did not.

	<b>Common to Highest-Ranking Projects by Sites/Year</b>	<b>Common to Lowest-Ranking Projects</b>
<b>Number of Total Participants</b>	455-1264	5-186
<b>Number of Non-HMP participants</b>	432-1233	0-601
<b>Number of HMP participants</b>	23-52	5-186
<b>What activities do Non-HMP perform?</b>	Create Records, Monitor/ Site Survey, Media Communication	
<b>What activities do HMP perform?</b>	Train Volunteers, Write Reports, Organize Talks and Events,	
<b>How was it advertised?</b>	RAD, SM, WEB, CON,	

The projects which recorded the most sites per year also had a slightly lower range of formal affiliations and a much higher range of informal affiliations than the other eight projects. In fact, the highest-ranking project with the least amount of informal affiliations still had more than the lower-ranking project with the most informal affiliations (Table 16).

Table 16: Affiliations for projects which recorded the most sites per year and those which did not.

	<b>Common to Highest-Ranking Projects by Sites/Year</b>	<b>Common to Lowest-Ranking Projects</b>
<b>Formal Affiliations</b>	5-7	1-8
<b>Informal Affiliations</b>	18-69	0-16

Both non-heritage management professionals and heritage management professionals were offered training opportunities in the three highest-ranking projects. Each of the highest-ranking projects also included site visits as part of their training. Some of the lower-ranking projects offered training to

participants, but this varied by project. The eight lower-ranking projects had no common training format (Table 17).

Table 17: Training for projects which recorded the most sites per year and those which did not.

	<b>Common to Highest-Ranking Projects by Sites/Year</b>	<b>Common to Lowest-Ranking Projects</b>
<b>Do Non-HMP receive training?</b>	Yes	
<b>Do HMP receive training?</b>	Yes	
<b>What is the format of training?</b>	Site Visit	

The projects which recorded the most sites per year had a lower range of funding than the lower-ranking projects (Table 18).

Table 18: Funding for projects which recorded the most sites per year and those which did not.

	<b>Common to Highest-Ranking Projects by Sites/Year</b>	<b>Common to Lowest-Ranking Projects</b>
<b>Funding Amount</b>	\$623,292-\$3,560,212	\$0-\$5,880,019

In summary, the projects which recorded the most projects per year had a higher number of total participants and non-heritage management professional participants but a lower range of heritage management professional participants. Furthermore, although there was no common activity established among the non-heritage management professionals of the lower-ranking projects, it is meaningful that only the highest-ranking projects allowed non-heritage management professionals to create records for the project and communicate with the media about the project (Table 15). The highest-ranking projects had a lower range of formal affiliations but a much higher number of informal affiliations than the eight other projects (Table 16). Finally, the highest-ranking projects had a lower range of total funding than the

lower-ranking projects (Table 18). Overall, the projects which record the most sites per year had more participants, most of whom were non-heritage management professionals that participated in different activities than the non-heritage management professionals of other projects. These high-ranking projects also had slightly fewer formal affiliations than the other projects but significantly more informal affiliations and were able to record sites in a shorter time period with less funding (Table 19).

Table 19: Final comparison of projects which recorded the most sites per year and those which did not. Only those categories with meaningful similarities or differences are included.

	<b>Common to Highest-Ranking Projects by Sites/Year</b>	<b>Common to Lowest-Ranking Projects</b>
<b>Number of Total Participants</b>	455-1264	5-186
<b>Number of Non-HMP participants</b>	432-1233	0-601
<b>Number of HMP participants</b>	23-52	5-186
<b>What activities do Non-HMP perform?</b>	Create Records, Monitor/ Site Survey, Media Communication	
<b>Formal Affiliations</b>	5-7	1-8
<b>Informal Affiliations</b>	18-69	0-16
<b>Funding Amount</b>	\$623,292-\$3,560,212	\$0-\$5,880,019

#### 4.4 Comparing the Highest-Ranking Projects to the Lower-Ranking Projects.

The three projects which recorded the most sites per participant were the Altai Mountain Project, CITiZAN, and the Australian Ranger Project. The three projects which recorded the most sites per year were CITiZAN, HMS, and SCHARP. Overall, the Altai Project, CITiZAN, the Australian Ranger Project, HMS, and SCHARP were the highest-ranking projects of the eleven compared in this study. The five highest-ranking projects had a higher range of total participants and non-heritage management professional participants but a lower range of heritage management professional participants than the six

other projects. There were no common activities for either type of participant among the highest-ranking projects or the lower-ranking projects. Each of the highest-ranking projects utilized conferences and academic papers to advertise their projects, but no common advertisement method was found among the other six projects (Table 20).

Table 20: Participant Information for highest-ranking projects and lower-ranking projects.

	<b>Common to all Highest-Ranking Projects</b>	<b>Common to all Lower-Ranking Projects</b>
<b>Number of Total Participants</b>	20-1264	5-186
<b>Number of Non-HMP participants</b>	0-1233	0-601
<b>Number of HMP participants</b>	23-52	5-186
<b>What activities do Non-HMP perform?</b>		
<b>What activities do HMP perform?</b>	Write Reports	
<b>How was it advertised?</b>	CON, AP	

The five highest-ranking projects had a slightly lower range of formal affiliations and a much higher range of informal affiliations than the six lower-ranking projects (Table 21).

Table 21: Affiliations for highest-ranking projects and lower-ranking projects.

	<b>Common to all Highest-Ranking Projects</b>	<b>Common to all Lower-Ranking Projects</b>
<b>Formal Affiliations</b>	5-7	1-8
<b>Informal Affiliations</b>	0-69	0-16

No trend in training opportunities was found for either non-heritage management professional participants or heritage management professional participants among the highest-ranking or the lowest-ranking projects. Furthermore, there was no common training format for either the high-ranking or low-ranking projects (Table 22).



Table 22: Training for highest-ranking projects and lower-ranking projects.

	<b>Common to all Highest-Ranking Projects</b>	<b>Common to all Lower-Ranking Projects</b>
<b>Do Non-HMP receive training?</b>		
<b>Do HMP receive training?</b>		
<b>What is the format of training?</b>		

The highest-ranking projects had a lower range of total funding than the six lower-ranking projects (Table 23).

Table 23: Funding for highest-ranking projects and lower-ranking projects.

	<b>Common to all Highest-Ranking Projects</b>	<b>Common to all Lower-Ranking Projects</b>
<b>Funding Amount</b>	\$368,500-\$3,560,212	\$0-\$5,880,019

In conclusion, the highest-performing projects generally had a greater number of total participants and non-heritage management professional participants but a lower number of heritage management professional participants (Table 20). They also had fewer formal affiliations but a much higher range of informal affiliations (Table 21). The highest-ranking projects also had lower total funding packages than the lower-ranking projects (Table 23). Generally, these projects are recording the most sites per year with a team of mostly non-heritage management professionals and the support of a few formal affiliations and many informal affiliations with less total funding and less time (Table 24).

Table 24: Final comparison for highest-ranking projects and lower-ranking projects, including only those categories with meaningful similarities or differences.

	<b>Common to all Highest-Ranking Projects</b>	<b>Common to all Lower-Ranking Projects</b>
<b>Number of Total Participants</b>	20-1264	5-186
<b>Number of Non-HMP participants</b>	0-1233	0-601
<b>Number of HMP participants</b>	23-52	5-186
<b>Formal Affiliations</b>	5-7	1-8
<b>Informal Affiliations</b>	0-69	0-16
<b>Funding Amount</b>	\$368,500-\$3,560,212	\$0-\$5,880,019

## **CHAPTER 5: DISCUSSION**

Carmichael and colleagues argue that including community members in heritage management decisions is critically important to managing sites threatened by climate change, but that this is uncommon in practice (Carmichael et al. 2015:2). In fact, a review of climate change- related heritage management projects revealed that most projects were undertaken by heritage management authorities such as universities, research institutions, and government agencies, to the exclusion of community members (Fatorić and Seekamp 2017:233, 240). Yet, more of the case studies included in this analysis fit into the category of alternative project than conventional project, which indicates that when it comes to recording or monitoring sites threatened by climate change, alternative projects are more prevalent than conventional projects.

In addition to being more common than conventional projects, alternative projects demonstrably outperformed conventional projects in the number of sites that were recorded per participant, the sites recorded per year, and the total sites recorded over the course of the projects. This answers the question put forth by Richardson and Almansa-Sanchez about whether projects which include community participants are as successful as they claim to be (Richardson and Almansa-Sanchez 2015:205): these projects are verifiably more successful than those which exclude community members. This confirms the observation that community partnerships contribute to the long-term success of heritage management projects (Jameson Jr. 2008:58). It also supports the proposition that local individuals have special knowledge of and access to heritage sites that is unavailable to heritage management professionals (Dawson et al. 2011: 95); this could explain the heightened productivity of the projects which included community members in the heritage management process.

## 5.1 Comparing Alternative and Conventional Projects

The comparisons of alternative and conventional projects revealed several differences. Alternative projects had more participants, particularly more non-heritage management professional participants, than the conventional projects. Conventional projects had a higher range of heritage management professional participants than alternative projects. This is unsurprising as the two types of projects were largely defined by the presence or absence of non-heritage management professionals, and therefore it is expected that the alternative projects would have had more non-heritage management professionals than conventional projects. Additionally, it has been argued that the quantity of audience is the main contribution of projects which engage community members (Richardson and Almansa-Sanchez 2015:203). However, Richardson and Almansa-Sanchez's assertion that projects which engage community members have no tangible aim nor discourse (Richardson and Almansa-Sanchez 2015:203) is contested by the fact that community participants (or Indigenous participants, in the case of the Australian Ranger project) were responsible for executing the most critical activities of the project, namely monitoring or surveying sites and writing reports on each site, and were able to record more sites per year than participants in conventional projects. This degree of inclusivity is directly aligned with recommendations from alternative heritage discourses such as encouraging more voices to participate in heritage management (Thomas 2008; Smith and Wobst 2006b; Zimmerman 2006) and increasing access to heritage (Byrne 2008:230; Preucel and Cipolla 2008:138-139; Smith and Wobst 2006b:9-10; Pearce 2013: 31-32).

Alternative projects also had a higher range of both formal and informal affiliations, which supports the assertion that affiliating with institutions which can offer funding and other support will lead to better heritage management outcomes (Simpson 2009: 287; Hambrecht and Rockman 2017) and

Jameson Jr.'s proposition that community partnerships contribute to the long-term success of heritage management projects (Jameson Jr. 2008: 58).

Interestingly, the alternative projects had a lower range of total funding than the conservative projects, which contradicts the claims that funding is a major limiting factor to the success of heritage management projects addressing the issue of climate change (Dawson et al. 2017; Bonsall and Moore 2015; Huckfield 2015; Newland et al. 2017). In fact, conventional projects had on average four times as much funding as alternative projects.

Despite having less funding, the alternative projects recorded ten times as many sites per year on average as conventional projects (five times as many if the outlier, CITiZAN, is excluded). This confirms Jameson Jr.'s observation that community partnerships lead to more successful heritage management outcomes (Jameson Jr. 2008:58-60) and supports the argument that community members have more knowledge of and access to some heritage sites than heritage authorities do (Dawson et al. 2011:95). On the other hand, conventional projects recorded nearly twice as many sites per participant on average. At first glance, this seems to support the sentiment that projects which include the public are focused primarily on quantity of audience (Richardson and Almansa-Sanchez 2015), and that non-heritage management professionals are less efficient than heritage management professionals. Yet, the highest-ranking project in this category - the Altai project- represents a major outlier at 12.14 sites recorded per participant (see Table 3), and if it is removed from the equation, the alternative projects recorded four times as many sites per participant as the conventional projects. Because of this, it can be argued that the alternative projects generally outperformed the conventional projects in both categories.

## 5.2 Comparing the Highest-Ranking Projects to the Lower-Ranking Projects

The comparison between the projects which recorded the most sites per participant and the other projects yielded interesting results. The Altai Mountain Project, CITiZAN, and the Australian Ranger Project recorded the most sites per participant, and compared to the other projects, these three had less

participants (both non-heritage management professional participants and heritage management professional participants), less formal and informal affiliations, and less total funding than the other projects. The fact that these projects had less formal and informal affiliations contradicts Jameson Jr.'s observation that projects which partner with communities perform better (Jameson Jr. 2008:58-60) and the proposition that affiliating with funding institutions leads to better heritage management outcomes (Simpson 2009:287; Hambrecht and Rockman 2017). Furthermore, the fact that these projects had lower total funding than the other projects conflicts with the observation that heritage management programs are majorly inhibited by lack of funding (Dawson et al. 2017; Bonsall and Moore 2015; Huckfield 2015; Newland et al. 2017).

The projects which recorded the most sites per year were CITiZAN, HMS, and SCHARP. Compared to the other projects, these three projects had more total participants and more non-heritage management professional participants, but less heritage management professional participants. Non-heritage management professionals in these projects performed unique activities within the project such as creating records and communicating with the media about the project. This level of participation exceeds that of the other alternative projects and indicates that these projects are embracing recommendations from alternative heritage discourses to a greater degree than other projects, particularly the recommendation that more voices be meaningfully included in heritage management practices (Thomas 2008; Smith and Wobst 2006b; Zimmerman 2006; Davison 2008; Harris 2006). It has been argued that non-heritage management professionals may monitor, protect, and share knowledge about heritage sites in different ways (Clunies Ross 1989:165-166; Anawak 1989: 49), and these conclusions support the observation that including local community members in heritage management can be immensely productive and rewarding. They also had a lower range of formal affiliations, a much higher range of informal affiliations, and a lower range of funding. The fact that these projects had fewer formal affiliations than the other projects appears to contradict the assertion that affiliating with funding institutions contributes to the success of heritage management projects (Simpson 2009:287; Hambrecht and Rockman 2017), but the difference between the ranges of the highest-ranking projects and the lower-

ranking projects is so small that the proposition should not be entirely ruled out. The high number of informal affiliations supports Jameson Jr.'s proposition that community-based partnerships lead to better heritage management results (Jameson Jr. 2008:58). Finally, the fact that these projects had a lower range of funding than the other projects contradicts the observation that funding is a limiting factor in heritage management outcomes (Dawson et al. 2017; Bonsall and Moore 2015; Huckfield 2015; Newland et al. 2017).

When the highest-ranking projects in both categories- sites recorded per participant and sites recorded per year – were compared to the other projects, a similar trend emerged. The highest-ranking projects, The Altai Mountain Project, CITiZAN, the Australian Ranger Project, HMS, and SCHARP, each had more total participants and non-heritage management professional participants, less heritage management professional participants, slightly fewer formal affiliations, many more informal affiliations and less funding than the other projects. As previously stated, this does not confirm the importance of affiliating with funding institutions (Simpson 2009:287; Hambrecht and Rockman 2017), but it does support Jameson Jr.'s assertion that community partnerships help heritage management projects achieve long-term success (Jameson Jr. 2008:58). Furthermore, it contradicts the suggestion that funding is a major limitation to the success of heritage management projects (Dawson et al. 2017; Bonsall and Moore 2015; Huckfield 2015; Newland et al. 2017).

### 5.3 Synthesis of Results

This comparative analysis has revealed that Richardson and Almansa-Sanchez's concern is unwarranted (Richardson and Almansa-Sanchez 2015:205). Alternative projects, which embrace recommendations from alternative heritage discourses, are demonstrably more successful than conventional projects at recording and monitoring heritage sites threatened by climate change. Additionally, it is more common for heritage managers recording and monitoring sites threatened by climate change to adopt principles from alternative heritage discourses than to rely on only 'authorized'

heritage discourse, despite the fact that most climate change-related heritage management projects are run by universities, government agencies, and research institutions that tend to exclude communities in the heritage management process (Fatorić and Seekamp 2017:233, 240). It has been argued that involving communities in the heritage management process is fundamentally important when addressing the threat of climate change (Carmichael 2015), and these results indicate that it is also a more productive strategy.

Comparisons of the highest-performing projects reinforce this point. In general, those with more participants, particularly non-heritage management professional participants who are encouraged to participate in the most critical activities of the project, are more successful than those which have few or no non-heritage management professionals. Furthermore, those projects with between five and seven formal affiliations and many informal affiliations also performed better than projects with slightly higher numbers of formal affiliations and fewer informal affiliations. Finally, the projects which recorded the most sites had lower ranges of funding than those that recorded fewer sites, which indicated that funding is not a limiting factor in the performance of these projects. These results support both the hypothesis presented by Dawson and colleagues that community members and local volunteers have special knowledge of or access to heritage sites (Dawson et al. 2011:95), the assertion by Jameson Jr. that community partnerships contribute to better heritage management results (Jameson Jr. 2008:58), and the benefits of sharing monitoring, protection, and dissemination responsibilities with community members (Clunies Ross 1989:1665-166; Anawak 1989:49), but do not support the proposition that partnerships with funding institutions are critical to the success of heritage management projects (Simpson 2009:287). They also contradict the claims that funding inhibits the productivity of such projects (Dawson et al. 2017; Bonsall and Moore 2015; Huckfield 2015; Newland et al. 2017), and although training is recommended for both heritage management professionals and non-heritage management professionals, it does not appear to contribute to the success of these projects in a measurable way (Society for American Archaeology 1996; Mapunda and Lane 2004:214).



The results of the comparison of the projects which recorded the most sites per participant to the other projects deviates from these results. This indicates that the productivity per person may not be related to any of the methodological factors considered. However, when the Altai Mountain Project, which represents a major outlier, was removed from consideration in the category of sites recorded per participant, it was found that the alternative projects recorded on average four times as many sites per participant as conventional projects. This indicates that the alternative projects generally outperformed the conventional projects, a conclusion which is supported by that fact that the differences between alternative and conventional projects are generally aligned with the differences between the highest-ranked projects and the lower-ranked projects. That said, the Altai Mountain Project cannot be discounted as it was highly successful at recording heritage sites threatened by climate change. It represents an outlier in terms of the productivity of its participants and deviates from the general trends of the most successful projects, but further analysis of this projects could lend insight into participant productivity.

In conclusion, the number of total participants, number of non-heritage management professional participants, type of participant activities, and number of informal affiliations were positively correlated to the most productive projects. The number of heritage management professional participants, the number of formal affiliations and the funding amount were negatively correlated to the productivity of the projects. Training opportunities, training format, and advertising were unrelated to the productivity of the highest-ranked projects. Finally, it should be noted that the CHERISH and REMAINS projects are still operating, so the information reported for these projects in this analysis is liable to change.

## CONCLUSION

It has been argued that heritage management projects which engage alternative heritage discourses are valuable, but since no comprehensive analysis had been conducted, it could not be determined whether these projects were performing as well as advertised nor what characteristics were contributing to their success (Simpson 2009:287; Gould 2016: 8-12; Brady and Crouch 2010:415). The purpose of this research was to address this issue by systematically comparing the performance of projects which embrace principles of alternative heritage discourses, referred to as alternative projects, to those which rely on 'authorized' heritage discourse, which were referred to as conventional projects. Alternative and conventional projects which addressed the issue of climate change by recording or monitoring heritage sites threatened by climate change were compared to acknowledge the recommendation that heritage management projects addressing the issue of climate change be evaluated to determine what benefits they provide (Fatorić and Seekamp 2017:240). Tully's 2007 comparison of community archaeology and museology projects demonstrated an effective method for comparing several case studies across numerous variables (Tully 2007), and this research served as a model for the comparison of alternative and conventional heritage management projects addressing the issue of climate change.

The cross-case comparative synthesis of these eleven case studies revealed that projects which include recommendations from alternative heritage discourses were highly successful. Furthermore, projects which encouraged non-heritage management professionals to perform critical activities in the project design and which partnered with community groups had better heritage management outcomes than those which did not. The highest-performing projects were able to record more sites per participant and per year with less formal affiliations, less heritage management professionals, and less funding than other projects. Finally, training and advertising were not correlated to project success. These conclusions

could only have been reached by conducting the type of systematic comparison that was recommended by Gould and Simpson (Gould 2016; Simpson 2009).

The comparison confirms Jameson Jr.'s proposition that projects which partner with local communities are likely to have better heritage management outcomes (Jameson Jr. 2008:58) and supports the hypothesis that local volunteers have special knowledge of or access to heritage sites (Dawson et al. 2011:95). In addition, the fact that the projects which embraced principles of alternative heritage discourses such as multivocality (Thomas 2008; Smith and Wobst 2006b; Zimmerman 2006), increased heritage access (Anawak 1989:49; Clunies Ross 1989:165-166; Byrne 2008:230; Preucel and Cipolla 2008:138-139; Smith and Wobst 2006b:9-10; Pearce 2013: 31-32), and acknowledging alternative values and management of heritage (Davison 2008; Harris 2006) were more prevalent and outperformed those projects which did not suggests that alternative heritage discourses are gaining traction and are highly effective heritage management models. Another pattern which emerged in this comparative synthesis is that funding was not linked to productivity or to the type of project, which conflicts with the argument that funding was a limiting factor in the success of such projects (Dawson et al. 2017; Bonsall and Moore 2015; Huckfield 2015; Newland et al. 2017). Interestingly, despite the recommendation that both heritage management professionals and non-heritage management professionals receive training (Society for American Archaeology 1996; Mapunda and Lane 2004:214), training opportunities were not linked to the productivity of the projects. This is aligned with Simpson's observation that the social benefits reported from community-based projects far outweighed the knowledge benefits (Simpson 2009:279).

Prior to this study, several heritage management professionals observed that community involvement contributes to better heritage management outcomes (Jameson Jr. 2008:58-60; Dawson et al. 2011:95; Simpson 2009:287; Brady and Crouch 2010; McDavid and McGhee 2010). It has also been argued that projects which engage community members are not just valuable to heritage managers; Simpson concludes that projects which partner with community members and local organizations are perceived to be valuable to the community in unexpected ways (Simpson 2009:279). The evidence from

this analysis indicates that alternative heritage discourses are linked to better heritage management outcomes so heritage managers should consider embracing principles of alternative heritage management such as multivocality, increasing access to heritage, and acknowledging alternative interpretations, valuations, and management strategies of heritage in the future.

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