Assessing the Economic and Sociocultural Value of Maritime Cultural Heritage Sites: An Interdisciplinary Pilot Study

by

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Declaration

I certify that this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text.

Peta Straiton
May 2022

Abstract

Perhaps due to its general inaccessibility, the maritime environment is uniquely mysterious and maritime archaeological practitioners across the world often rely on romantic rhetoric to promote their work. Mystery has given rise to obstinance, however, as the maritime archaeological tourism industry stagnates in South Australia. In particular, the perceived benefit of tourism engagements – once a heavy focus in South Australia, Western Australia, and Victoria – has become an assumed and apparently invariable quantity. It seems the adage 'everyone loves a shipwreck' is, for many, a sufficient summary of maritime cultural heritage's economic and sociocultural value. This thesis proposes and tests a new model of inquiry designed to clarify the nature of maritime cultural heritage's economic and sociocultural value in South Australia. The model adapts approaches and theoretical frameworks from other disciplines (including tourism, psychology, economics, and statistics) to augment common archaeological practises of community engagement.

The pilot study involved two major threads of investigation. The first was to measure economic value by applying an 'attribution factor' to estimated visitor spends. The second was to compare types of place attachment with potentially observable behavioural outcomes. Primary data was gathered through 609 surveys conducted across six South Australian maritime cultural heritage sites. Statistical analyses were used to develop a visitor profile of each site, and again to produce a snapshot of the South Australian maritime cultural heritage tourism industry. Further interpretation of the results led to the following conclusions:

1) Visitors to maritime cultural heritage tourism sites will often spend a significant amount of money to specifically experience the cultural heritage features at these sites, with a total *targeted spend* across sites of $5.8 million and a total *collateral spend* across sites of $5 million (based on an overall attribution factor of 54.39%).

2) The four place attachment types adapted for this study measure discrete and valid types of emotional attachment visitors can experience when visiting maritime cultural heritage tourism sites. In addition, they interact with behavioural intentions type.

3) The two behavioural intentions types adapted for this study measure discrete and valid types of behaviour visitors can engage in during and after visiting maritime cultural heritage tourism sites. In addition, they interact with place attachment type.

Though some of the observed variations in the latter conclusions may help develop better targeted engagements and on-site interpretation, further studies are required to expound the relevance of place attachment and its effect on behaviour in the maritime heritage context. Nevertheless, this study emphasised the importance of examining both the economic and sociocultural value of maritime cultural heritage sites and augmenting current archaeological practises with progressive methodologies.

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Common Abbreviations

ABC	Adelaide Brighton Cement Limited
ANOVA	Analysis of Variance
AUD	Australian Dollar
BHP	Broken Hill Propriety Company
CBD	Central Business District
CFA	Confirmatory Factor Analysis
EFA	Exploratory Factor Analysis
GDP	Gross Domestic Product
GRP	Gross Regional Product
IBM SPSS	Internal Business Machines Statistical Package for the Social Sciences
AMOS	Analysis of a Moment Structures
ICOMOS	International Council on Monuments and Sites
NSW	New South Wales
OECD	Organisation for Economic Co-operation and Development
PAHSMA	Port Arthur Historic Site Management Authority
SA	South Australia
SATC	South Australian Tourism Commission
SCUBA	Self-contained Underwater Breathing Apparatus
TRA	Tourism Research Australia
UK	United Kingdom
USD	United States Dollar
UNESCO	United Nations Educational, Scientific, and Cultural Organisation
UV	Ultraviolet
WTO	World Tourism Organisation
YHA	Youth Hostels Australia

1 Introduction

'Seaward ho! Hang the treasure! It's the glory of the sea that has turned my head'
— R.L. Stevenson, *Treasure Island*, 1881

'Call me Ishmael' is one of the most iconic introductions in Western literary canon, and the beginning of a maritime adventure tale that has seen countless iterations. *Moby Dick* is more than just the story of an oceanic beast and its vengeful pursuer: it is a romanticised glimpse into the history of the whaling industry and the public's perception of its practitioners. Whatever one's view on the morality of whaling, the book's ongoing popularity and recurrent resurgence in film (such as in Ron Howard's *In the Heart of the Sea* [2015]) suggests a widespread fascination with the maritime environment. In fact, many of the tropes associated with human endeavour on the high seas, like those of the swashbuckling pirate, shipwrecks full of gold, eldritch monsters, noble heroes, and fantastic voyages, are ones perpetuated by creative media. Think Jules Verne's *Twenty Thousand Leagues Under the Sea*, Patrick O'Brian's *Master and Commander* and Peter Weir's filmic adaptation, Robert Louis Stevenson's *Treasure Island* and its countless reimaginings, Ernest Hemingway's *The Old Man and the Sea*, the History Channel's *Vikings*, Starz's *Black Sails*, Disney's *Pirates of the Caribbean*, and Ubisoft's *Assassin's Creed IV: Black Flag*. With over-the-top adventure so frequently colouring the public's broad conceptualisation of what maritime cultural heritage is – and combined with the generally inaccessible nature of actual underwater maritime cultural heritage – it is perhaps unsurprising that the truth of such material is often shrouded within a lure of mystery; a lure that has and continues to draw people to the ocean.

However, with the invention of the self-contained underwater breathing apparatus (SCUBA) and submersible cameras, divers can now explore the underwater world in ways once impossible. As these technologies develop over time, the public's engagement with and

understanding of the *reality* of maritime heritage will only increase, and those who were once able to capitalise on the romanticism of maritime adventure will be forced to rely less on creative media and more on creating targeted, innovative educational platforms to win support for their work. Indeed, while the ocean will always hold a lure of mystery, relying on such an aura alone, especially in an era of vast informational access, is no longer enough. The assumption that people simply appreciate maritime cultural heritage because it is 'mysterious' is fast wearing thin, and the need to properly understand the nature of its potential economic and sociocultural value has become paramount. Deeper public engagement is needed, and this engagement needs to be routinely assessed to determine its impact on visitors. The marriage between fact and story need not be detrimental, however. In fact, Australian maritime archaeology may owe much to advances in recreational diving, even if the practise is slowly threatening to reveal the ocean's secrets.

Arguably, the prominence of the shipwreck mythos benefited maritime archaeology's inception as a discipline of study. Indeed, while general access to underwater wreckages has only been possible since the invention of SCUBA, the discipline's formalisation in the 1960s was predicated largely on the increased discovery rate of shipwreck sites. Before SCUBA, the public could only rely on their imagination to picture what lay on the ocean floor, but with the proliferation of SCUBA diving as both a profession and a hobby, members of the public can now explore it for themselves. For avocational divers in particular, the allure of exploring previously undiscovered shipwrecks often presents a metaphorical (and sometimes literal) treasure trove, an adventure which, in some cases, serves to reaffirm the mystique of shipwrecks as lost bastions of valuable artefacts and romantic escapism (Hosty and Stuart 2001, Green 2004, pp. 5–8). Unsurprisingly, and perhaps due to the already imprinted association of the 'shipwreck' as a definitive indicator of maritime cultural heritage, much of Australian maritime archaeology's early work focused principally on shipwrecks discovered by members of the public (Henderson 2001).

Even in the 21st Century, shipwrecks remain a dominant focus for most Australian maritime archaeology studies to a potentially problematic degree. A sizable portion of the field's research is concerned with the pragmatic details of shipwrecks (Nash 2006a, Bullers and Shefi 2014, Van Duivenvoorde 2015a, 2015b), shipping cargos or on-board artefacts (Illidge et al. 2014, Ryan 2014), wrecking events and associated survivor camps (Nash 2006b, Green and Paterson 2020), wreck conservation (Veth et al. 2013, Shefi et al. 2014, MacLeod 2018), and (more recently) the technological recording of maritime cultural heritage sites (Edwards et al. 2016, Bennett 2018, McCarthy et al. 2019, Daly et al. 2021, Coroneos et al. 2022, McCarthy and Van Duivenvoorde 2022). This narrow focus is symptomatic of the field's reliance on

mystique to justify its reliance on the tropes of popular culture, a problem often reflected in the very legislation designed to protect maritime cultural heritage material. In fact, until the introduction of the federal *Underwater Cultural Heritage Act* in 2018, the legislative boundaries of maritime cultural heritage in Australia were devised to primarily cover shipwrecks at the expense of other maritime sites (see Section 2.1.1). To combat this, academics and legislators across the globe – including those within Australia – have begun expanding the language they use to include any and all sites facilitating human interaction with a marine environment (Muckelroy 1980, p. 9, Westerdahl 1992, Nutley 2001, UNESCO 2001a, Green 2004, p. 2, McCarthy 2006, p. 1, Australasian Institute for Maritime Archaeology 2020). Still, the slow rise of more inclusive definitions *is* helping the discipline move beyond its infatuation with shipwrecks, and the number of maritime archaeological projects involving intertidal, terrestrial, or submerged sites (such as shipyards, timber mills, ports/harbours, sunken aircraft, and submerged landscapes) *is* increasing (Fowler et al. 2015, Straiton 2017, Benjamin et al. 2020, Veth et al. 2020). Regardless, this lingering emphasis on shipwrecks as the 'mysterious' pinnacle of maritime cultural heritage continues to suppress the diverse reality of Australia's maritime cultural heritage, one which is spread across a variety of sites and multiple bodies of water.

Consequently, the perceived economic and sociocultural value of maritime cultural heritage – both off-site and on-site – remains a largely assumed quality. While traditional shipwreck studies *do* contribute to our collective understanding of maritime history, focusing on them to the exclusion of other lines of inquiry has arguably led to a stagnation of both the discipline and the industry's evolution, particularly when it comes to understanding and communicating the modern value of maritime cultural heritage sites. Indeed, understanding the history of Australian maritime archaeology provides the context for why the field has developed the way it has with a focus on shipwrecks. Between the late 1980s and early 2000s, maritime practitioners instigated some of the earliest on-site, *in situ* examples of maritime cultural heritage tourism in the country. During this period of development, governmental and non-profit organisations in Western Australia, South Australia, and Victoria collectively developed 36 maritime cultural heritage trails for public engagement (Philippou and Staniforth 2003, p. 136). Since the early 2000s, however, the efficacy of these trails remains unstudied and the trails themselves are potentially underdeveloped (Philippou and Staniforth 2003, p. 136). This is certainly true for trails in South Australia: specifically, the state's first submerged maritime heritage trail (Philippou and Staniforth 2003). Originally created in the 1980s, the trail has remained unchanged both informationally and stylistically for almost four decades. Even basic details remained out of date until early 2020, with incorrect departmental branding and a pre-1994 six-digit phone number adorning publicly accessible interpretation. Similar conditions

plague maritime heritage trails in other states, leading some scholars to argue that state practitioners have become largely passive in their communication of maritime cultural heritage and archaeology to the public (Philippou and Staniforth 2003, p. 136).

Unfortunately, this broad disinclination to review current interpretation or create new interpretation has contributed to the long-term 'abandonment' of maritime cultural heritage trails in South Australia, leaving most unstudied and unchanged since their initial conceptualisation and installation. Furthermore, attempts to study, renew, or revive interpretation are often described as a waste of resources, principally as there is a general lack of evidence that doing so will have any positive outcomes for the public, the heritage site, or the managing body. Unfortunately, relying on the supposition that maritime cultural heritage is inherently 'exciting' to the public, regardless of the efficacy of the interpretation itself, is clearly a dying notion, as is the accepted mantra that 'everybody loves a shipwreck'. Inferring that the public will engage with and appreciate cultural maritime heritage and its interpretation regardless of its accessibility, appeal, or quality of experience can no longer sustain either the discipline as an academic field of inquiry, or many of the industry's current practises. In fact, some authors suggest that the only practical way forward may be to open more maritime cultural heritage sites as tourism destinations, an act they argue could lead to greater site protection and conservation through public education and the use of sustainable practises on heavily visited sites through local community involvement (Harris 2014, Smith 2014, Sorset 2014, Zarzynski et al. 2014, Firth 2015, Scott-Ireton and McKinnon 2015). On a broader level, increased public engagement through tourism could also lead to maritime cultural heritage sites being classified as important assets, and positively impact local recreation, hospitality, and retail businesses (Harris 2002, p. 60, Firth 2015, Scott-Ireton and McKinnon 2015).

Ultimately, the message these authors are sending is clear. The promotion of archaeological work through tourism and public education is no longer a luxury, but a necessity, with Della Scott-Ireton and Jennifer McKinnon putting it best: 'If we as archaeologists cannot do a better job identifying and quantifying not just the intrinsic, but also the economic value of our work, we will have missed the proverbial boat' (2015, p. 166). Of course, all of this requires the disentanglement of 'mystique', and the development of tools that allow researchers and practitioners to accurately measure and compare the economic and sociocultural data of maritime cultural heritage tourism engagements. Indeed – in an era of economic rationalisation – having public engagement, interpretation, or outreach where the outcomes, values, or impacts are unknown is inadequate and unacceptable. Funding bodies and policy makers often require measurable and meaningful data on the outcomes, values, or impacts of interpretation when allocating funding resources, which means that reviewing the economic

and sociocultural value of existing instances of maritime cultural heritage interpretation is vital to securing ongoing funds for their care and management.

Still, while researchers, archaeological practitioners, and heritage managers throughout the world have been highlighting the significance of protecting maritime cultural heritage sites through increased public interpretation and tourism ventures (McCarthy 1983, Philippou and Staniforth 2003, Harris 2014, McKinnon 2014, Scott-Ireton 2014, Sorset 2014, Zarzynski et al. 2014, Firth 2015, Scott-Ireton and McKinnon 2015), very few studies directly examine the economic or sociocultural value of maritime cultural heritage tourism sites globally, with fewer still examining maritime cultural heritage tourism in Australia. Of those few that do exist, most tend to focus on basic economic information (such as visitor numbers and raw monetary data) rather than the sociocultural impacts of visitation (ABP Marine Environmental Research Ltd 2010, Beattie-Edwards 2013, Firth 2015, History Trust of South Australia 2017). The relative abundance of economic focused reporting is likely due to a broader emphasis on the importance of raw economic data. Many governmental and funding bodies consider 'hard data' numbers like 'people through the door' and 'dollars spent' the primary indicators of a venture's success. For many academics, researchers, scholars, and practitioners, however, these simplistic numbers are ineffectual measurements of a site's true value. Instead, they argue that a site's economic value is an intrinsic function of its sociocultural value. How, they ask, can a managing body efficiently increase visitor numbers to a site if they do not understand the motives of their visitors, nor the general behavioural outcomes induced by the interpretation they choose to display? Similarly, how can conservation plans be properly actioned without data supporting their supposed efficacy?

Ultimately, such questions can only be answered by understanding why people choose to visit sites, how people develop connections and a 'sense of place' to histories (physical, oral, or otherwise), and how these connections translate into behavioural outcomes (including spending habits that feed economies). Understanding these changes, rather than relying on adages like 'everybody loves a shipwreck' and a reductive bump in visitation due to a caricaturised ad campaign, may be just as important (if not more so) than understanding the economic benefits of a heritage site. It may even lead to deeper, more actionable insights. Further complicating the issue is the fact that maritime cultural heritage tourism is an underdeveloped, unexplored, and potentially underutilised tourism industry in Australia. In 2022, many sites considered to be 'maritime cultural heritage tourism' are categorically divided among existing tourism industries: specifically, museum tourism, cultural heritage tourism, beach tourism, and/or dive tourism. Consequently, there is a general lack of basic profiling information circulating within the heritage and tourism industries. Questions like who

participates in the industry, how is it structured, and what does its economic and sociocultural success look like typically go unanswered or, at best, roughly estimated. For example, data gathered and made available by the dive tourism industry tends to focus on recreational diving and rarely differentiates between the impacts of maritime cultural heritage material and nature-based material (Edney 2018, p. 46). Here again, practitioners, scholars, and legislatures often disagree on what aspects of heritage are important to the industry. Indeed, despite some maritime cultural heritage sites falling into the 'museum tourism' category[1], many researchers and practitioners in Australia and across the world still focus on creating on-site *in situ* interpretation for maritime cultural heritage sites, arguing that each instance of interpretation *must* be unique to the needs of local visitors and the local community to be effective (Strachan 1995, Philippou and Staniforth 2003, McKinnon 2014, Scott-Ireton 2014, McKinnon and Carrell 2015, Scott-Ireton and McKinnon 2015, McKinnon and Scott-Ireton 2017).

Some scholars also suggest that approaches to maritime cultural heritage interpretation need to be distinct from traditional terrestrial approaches due to the environmental challenges inherent to many maritime cultural heritage sites (Bensley and Mastone 2014, Catsambis and Morrand 2014, Deming 2014, McKinnon 2014, Scott-Ireton 2014, Smith 2014, Underwood 2014, Scott-Ireton and McKinnon 2015, McKinnon and Scott-Ireton 2017). Once again, however, few discuss the subject of assessing interpretation once it is installed or how we can determine a site's economic and sociocultural value on an actionable scale: the presence of interpretation is apparently enough. For a maritime archaeologist, however, the question should become: are we communicating the value of our work to the public? How might we more efficiently provoke reactions in the people who experience the heritage we interpret, whether on-site or off-site? How can we build connections between places and people or, better yet, understand the ones that already exist without relying on the assumption that 'everybody loves a shipwreck'? Few seek such answers. In South Australia, academics, industry partners, and legislatures alike are yet to fully embrace the cultural heritage tourism industry, instead over-generalising its 2015 nature-based tourism strategy to dictate policy. This strategy lays out a path to promote the state's nature-based tourism sites with the principal goals of increasing jobs and economic revenue (Tourism South Australia 2015a, 2015b, Speirs 2020). Fortunately, the development of a more focused (cultural) heritage tourism strategy and action plan commenced in 2017 and was released on June 24, 2021. The delay in creating this granular heritage tourism strategy is likely due to a widespread underappreciation South Australian's seem to have towards their cultural heritage, with some

[1] Sites that display maritime cultural heritage that fall into the 'museum tourism' category include the *Mary Rose* Museum, *Vasa* Museum, *Titanic* Belfast, and other maritime museums.

heritage practitioners arguing that the value of cultural heritage in South Australia is misunderstood by the majority of the general public (Straiton 2019).

Furthermore, South Australia has a poor record of investigating its cultural heritage as tourism destinations, resulting in the State Heritage Unit stating that the true value of cultural heritage is 'not fully recognised or adequately measured' (2015, p. 3). Fortunately, this appears to be changing slowly with several prominent papers and organisations expounding the untapped potential of cultural heritage tourism in the state. This includes a state government discussion paper (State Heritage Unit 2015), an economic cultural heritage tourism study (Carlsen 2015), and new state government policies, including the recently released Heritage Tourism Strategy (Heritage South Australia 2020c). Additionally, Adelaide held the inaugural Australian Heritage Tourism Conference in March 2019, which was specifically designed as a forum for discussing cultural heritage tourism as a viable, growable, and sustainable form of tourism throughout Australia. Though an increased interest in the industry generally bodes well, Spiers (2020) suggests it is solely motivated by a desire to increase the state's economic revenue.

Still, studies into the economic and sociocultural value of cultural heritage – let alone maritime cultural heritage – remain scarce in South Australia. In fact, only three major studies exist, and all of them examine traditional terrestrial cultural heritage tourism sites (Cegielski et al. 2000, Mules 2001, Carlsen 2015). The most recent and relevant study by Carlsen (2015) focused on economic value, and identified that heritage buildings in Adelaide's central business district (CBD) contribute millions of dollars annually to the city's economy (Carlsen 2015, p. 7). None of the studies attempt to dissect the sociocultural impact of cultural heritage on visitors beyond determining basic demographical information: who the visitor was, what they did, if they enjoyed their trip, how much time they spent, and what other tourism options they would like to experience (Cegielski et al. 2000, Mules 2001, Carlsen 2015). The blind spots this lack of actionable data represents for archaeologists, managers, and conservators is significant, and researchers in the tourism industry seeking such data are forced to review heritage-based reports which, of course, possess their own limitations.

Primarily, heritage-based reports tend to examine sites from a strictly heritage perspective rather than a tourism perspective, and therefore rarely discuss visitor engagement, the pro-heritage behaviour of visitors, and/or the sociocultural impacts of visitation. Even when these reports discuss the social impact of visitation, archaeological scholars and tourism scholars approach the data differently, making interdisciplinary comparisons complex at best and impossible at worst (see Sections 2.3 and 2.5.2). Interestingly, heritage-based reports will often discuss the social impact of sites in terms of an individual's 'sense of place', a concept

borrowed from psychology and deployed in South Australian archaeology in line with the *Australian ICOMOS Charter for the Conservation of Places of Cultural Significance* 1999 (hereafter The Burra Charter) (Australian ICOMOS [International Council of Monuments and Sites] 2000). The Burra Charter identifies 'sense of place' as a key factor when considering the sociocultural impact of any cultural heritage asset, and the charter itself is referenced globally to help identify the sociocultural significance of sites. Unfortunately, there is ambiguity with the term 'sense of place', as many authors opt to leave it undefined which has, to some degree, caused it to be become semantically vague (see Section 2.3) (Baxter et al. 2011, Brakman 2011, p. 121, Hopley and Mahony 2011, p. 34, Radmilli 2011, pp. 173–174). Other methodological differences that lead to confounding interdisciplinary issues include sample size (economic studies tend to have more respondents while heritage-based studies tend to have less) and methodological style (economic studies tend to focus on quantitative data while heritage-based studies tend to focus on qualitative data).

It is becoming increasingly apparent that a semi-standardisable, interdisciplinary model of inquiry is needed to fully understand both the economic and sociocultural value of cultural heritage tourism sites. Indeed, failing to address both only creates indefinable outcomes and ambiguous conclusions, which in turn provides a space for economically driven developers to create doubt about the true intrinsic value of cultural heritage. Without the numbers (economic data) and stories (social data) in unison, developers can argue that the economic value of demolishing cultural heritage sites far outweighs any potential sociocultural value from its continued existence, and without any data to the contrary, cultural heritage advocates will struggle to save sites from demolition. In fact, these arguments have been made repeatedly in South Australia since 2015 regarding numerous cultural heritage sites. Recently, property owners Hans Ehmann and residential developers Cedar Woods argued that iconic maritime cultural heritage buildings located in Port Adelaide were hindering the area's economic growth. Their solution was to demolish them to enable the commencement of multimillion dollar development projects (Eichler 2015, 2016a, 2016b, Evans 2016, Pisani 2016a, 2016b, 2017, Siebert 2019, Bond 2019b). Other South Australian cultural heritage sites have also come under threat from demolition in recent years. These include the locally iconic Thebarton Theatre (Eccles 2019), which was considered for demolition to increase traffic lanes (it was fortunately saved (Dornin 2020)), and more recently, the 130 year old state heritage-listed Waite Gatehouse, which, at the time of writing, is being taken apart for relocation (Washington 2020, Chapman 2021). Once again, it seems relying on romantic notions of humanity's connections with cultural heritage and, specifically, their struggle with the sea, will only get us so far in preserving our maritime cultural heritage in today's world.

1.1 Research Question, Aims, and Significance

1.1.1 Research Question

This thesis tests an original, interdisciplinary model of inquiry designed to meaningfully collate the economic and sociocultural value of multiple maritime cultural heritage tourism sites. Its principal goal is to test the hypothesis that a single methodological framework can be used across multiple maritime cultural heritage sites to determine and compare:

1. The 'average' visitor profile at each site;
2. The calculated economic value of each site;
3. The reported sociocultural value of each site; and
4. If high site 'attachment' correlates with reported pro-heritage and environmental behaviour

Its secondary goal is to collect and compare data from six South Australian maritime cultural heritage tourism sites selected for this purpose. The thesis draws on earlier research from archaeology, tourism, and social science, and consequently analyses a range of qualitative and quantitative data points. The thesis's primary research question can therefore be summarised as:

Is it possible to gather meaningful and comparable visitation data across multiple maritime cultural heritage tourism sites using a single model of inquiry?

1.1.2 Significance

The significance of this thesis is predicated on two key points. The first is that the study deploys an original, interdisciplinary model of inquiry that both builds on and augments previous research. The second is that this is the first study to specifically examine the economic and sociocultural value of South Australian maritime cultural heritage tourism sites. It therefore represents an important foundational document upon which future studies may expand, and the results from the study itself can help South Australian practitioners understand the practical value of the maritime cultural heritage material under their purview.

1.2 Methodological Summary

This thesis tests an original, interdisciplinary model of inquiry on six maritime cultural heritage tourism sites in South Australia. These sites are divided between two of South Australia's most visited tourism regions: 'Adelaide' and the 'Fleurieu Peninsula' (Figure 1-1). According to the South Australian Tourism Commission (SATC), the 'Adelaide' region has the highest visitor numbers in the state with 3.1 million overnight visitors and 4.8 million day trip visitors annually (South Australian Tourism Commission (SATC) 2019a). The 'Fleurieu Peninsula' region, in contrast, has 729,000 overnight visitors and 2.7 million day trip visitors annually (South Australian Tourism Commission (SATC) 2019b). The sites located in the 'Adelaide' region are the South Australian Maritime Museum, Clipper Ship *City of Adelaide* (both in Port Adelaide), and the Garden Island Shipwreck Graveyard. The sites located in the 'Fleurieu Peninsula' region are Port Willunga, Rapid Bay, and ex-*HMAS Hobart* (Figure 1-2). These sites were selected to capture a variety of site types, maritime cultural heritage assets, and environmental landscapes (see Section 3.1). For data-gathering purposes, the proposed model of inquiry includes the on-site use of structured surveys and off-site guided interviews designed specifically to address the research questions and aims of the thesis. Many of the questions within the surveys and interviews are drawn from other studies and subsequently adapted for inclusion.

The surveys are structured around four key sections. The first asks identity-based questions designed to gather demographic information about the participant. The second asks a series of economic-based questions regarding the participant's spending habits during their visit. Questions in this section are primarily based on questions from Carlsen's (2015) study and similar works (Hughes, Carlsen and Wood 2005, Carlsen and City of Perth 2008). The third section explores the participant's engagement with the site: specifically, why they visited the site, what they did while there, and what factors are important for their travel/holiday plans. The final section explores the participant's emotional connection to the site using adapted terminology and questions from similar place attachment studies in different fields (Lewicka 2011, Ramkissoon et al. 2013a, 2013b) (see Section 3.5).

Adelaide and Fleurieu Peninsula zones, as identified by the SATC

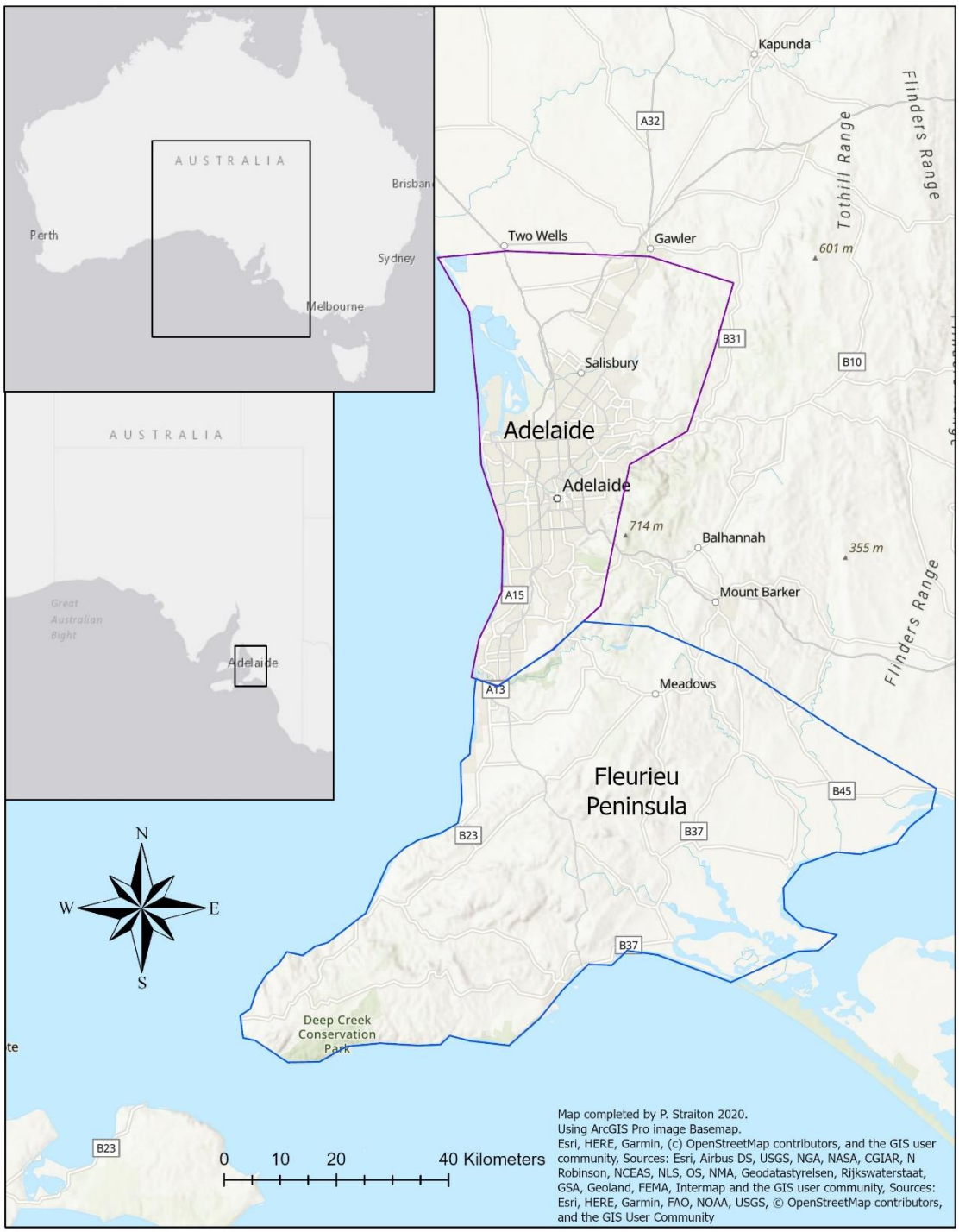

Figure 1-1 Boundaries of the Adelaide and Fleurieu Peninsula, as identified by the SATC.

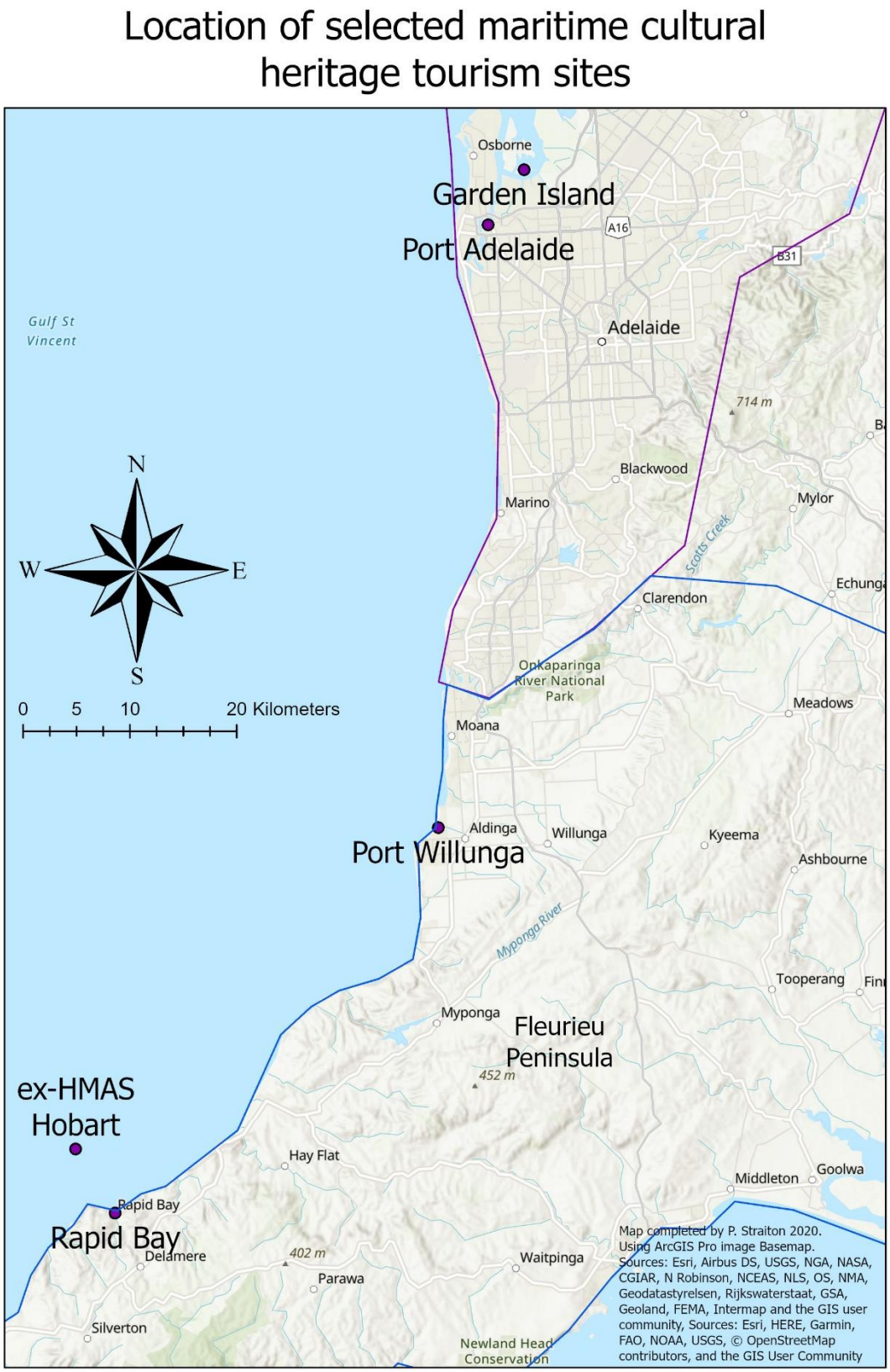

Figure 1-2 Locations of Port Adelaide, Garden Island, Port Willunga, Rapid Bay, and ex-HMAS Hobart in relation to the SATC Boundaries.

The interviews are similarly divided into four key sections. The first focuses on the demographics of the participant; the second explores the participant's emotional connection to the site in question; the third explores the participant's perception of the economic benefits of the site in question; and the final section explores the participant's sense of place attachment to the site in question. Importantly, the same survey and interview was used across all sites to test the model's overall applicability and to produce comparable results. Survey participation was encouraged via both on-site face-to-face engagement and online via social media outlets, allowing the researcher to test the best approach in reaching the often nebulously defined maritime cultural heritage tourist. Interviews, however, were only conducted via face-to-face engagement with those who self-identified as being 'connected to' or 'invested in' a site (see Appendix A for a full list of survey and interview questions).

The survey period for all sites lasted six months from October 2018 to March 2019. Conversely, interviews were conducted from April 2019 to October 2019. This staggered approach allowed for some participants to schedule interview participation after finding out about the project through the initial data collection period. The data collected from the surveys and interviews were statistically analysed using International Business Machines' Statistical Package for the Social Sciences (IBM SPSS) (IBM SPSS – Version 25) and IBM's SPSS Analysis of a Moment Structures program (IBM SPSS AMOS) (Arbuckle 2017). The results were then used to build average visitor profiles for each site, which were, in turn, used to analyse and compare their economic and sociocultural value.

1.3 Chapter Overview

This thesis is divided into six chapters, the first of which is this introduction. It has broadly introduced the reader to the issues the thesis is designed to address, the study's research area, its primary questions, aims, and objectives, and its significance from both an academic and commercial perspective.

Chapter 2 contextualises maritime cultural heritage tourism. It begins by providing an archaeological overview of Australian maritime cultural heritage before exploring the tourism industry and highlighting the importance of quantifying economic data. It then provides a counterpoint by exploring maritime cultural heritage's sociocultural value and the various issues interdisciplinary projects face when attempting to define or measure it. The chapter then touches on previous attempts to identify the average South Australian maritime cultural heritage visitor, before concluding with a review of some current issues common to cultural heritage tourism research.

Chapter 3 expounds the study's model of inquiry, detailing its formulation while also reviewing some of the adapted source studies. It also precisely identifies the mathematical and statistical tests used to analyse the resulting data and provides a historical background for each of the six selected sites.

Chapter 4 presents and discusses the results of the model, as well as which sections of the model can be adapted for application to a range of broader sites. This chapter also presents and analyses the results of the surveys and interviews, identifying and comparing each site's 'average' visitor profile and their economic and sociocultural value as quantified by the model. It concludes by compiling these results into an overview or 'snapshot' of the South Australian maritime cultural heritage tourism industry.

Chapter 5 formalises this study's broader implications. It identifies if the research method was effective in adequately gathering and comparing the economic and sociocultural value of maritime cultural heritage tourism sites in South Australia and provides suggestions on how to further this research.

Chapter 6 concludes this thesis. It broadly discusses the current gaps in knowledge and how this research has sought to remedy them.

2 Contextualising Maritime Cultural Heritage Tourism

'The great depths of the ocean are entirely unknown to us. Soundings cannot reach them. What passes in those remote depths… we can scarcely conjecture'.

— Jules Verne, Twenty Thousand Leagues Under the Sea

Maritime cultural heritage tourism (sometimes referred to as maritime archaeotourism) is a developing industry, and a largely nebulous and under-researched sub-branch of both maritime archaeology and tourism in academia. Defining it is somewhat difficult, partly because of its consistent subsummation by broader terminology, and partly because scholars, practitioners, and legislators often disagree on what would even constitute maritime cultural heritage tourism if it were more rigidly typified. Recently, academic and legislative inquiries into maritime cultural heritage have begun expanding beyond traditional shipwreck surveys and excavations (Straiton 2015, Australian Government 2018, Fowler 2019, McCarthy et al. 2019, Benjamin et al. 2020). At the very least, this new, inclusive definitional range in academia allows for the responsible and deliberate addition of previously undeclared maritime cultural heritage sites (for example: beaches, museums, intertidal sites, and submerged sites) into the anthropological sphere of interest. Of course, such sites are often *already* part of the tourism industry, with regular visitors and recreational activities available at many. Nevertheless, the work of archaeologists and tourism operators remain largely disconnected despite focusing on the same material (Walker and Carr 2013a).

As a result, maritime cultural heritage tourism sites are rarely investigated holistically, with studies often focusing on singular outcomes. For example, studies commissioned to examine sites considered tourism-centric like museums tend to emphasise visitor numbers (South Australian Museum Board 2017, Mary Rose Trust 2018, Belfast Harbour 2019), while those

commissioned to examine site composition tend to emphasise histories (Bullers and Shefi 2014, Bennett 2018, McCarthy et al. 2019). Of course, one might ask why a largely philosophical divide even matters. After all, the archaeological truth of a cultural heritage asset has seemingly little to do with the asset's management in terms of tourism (except, perhaps, for the interpretation archaeologists may provide either on-site or off-site). Like maritime archaeology's preoccupation with shipwrecks, however, this line of thinking is detached from reality. Maritime cultural heritage undeniably encapsulates a wide variety of site types, heritage assets, and environmental conditions, and the study and conservation of such assets is undeniably reliant on the moral and financial support of an engaged and interested general public. Furthermore, both academia and the tourism industry itself can supply a smorgasbord of interlinking, interconnecting definitions for the term, many of which, scholars argue, are intrinsically known and understood by those operating in the field. Some go so far as to claim that 'stating' a definition is irrelevant and detracts from investigations that would otherwise benefit all parties (Richards 1997b, p. 22, Goodrich 1997, Alzua et al. 1998, p. 3, McCarthy 1998, Garrod and Fyall 2000, 2001, Jeffery 2001, Poria et al. 2001, Staniforth and Hyde 2001, Hoffman et al. 2002, p. 30, Green 2004, p. 2, Pinter 2005, p. 9, Anderson et al. 2006, Souter 2006, Bowitz and Ibenholt 2009, Jahoda 2012, p. 300, Hollowell 2014, p. 1937).

Still, it seems a working definition is required for clarity's sake, although attempting to present a *quotable* definition is beyond the scope of this thesis. Instead, a broad, open-ended understanding will be adopted due to the nebulous nature of the term's deployment throughout tourism and maritime cultural heritage studies within Australia and overseas. It is therefore prudent to consider maritime cultural heritage tourism as *travel that takes a person outside of their usual environment for work trips or leisure, where they can experience places and activities, both past and present, that possess traces of human culture and archaeological interaction with the maritime environment*. As a working definition, this allows this thesis to consider cultural heritage tourism as a function of both the tangible and intangible elements of human culture that may be the target of a visitor's interest, including built structures, artefacts, collective memory, identity formation, and the acceptance and passing on of myths (Herbert 1995, Richards 1996, 1997a, Ashworth 1997, Blackwell 1997, Johnson and Thomas 1997, O Donnchadha and O Connor 1997, Yale 1998, Poria et al. 2001, 2003, Smith and Ehrenhard 2002, Anderson et al. 2006, Macdonald 2006, Park 2010, Vecco 2010, Timothy 2011, Walker and Carr 2013a, Castañeda and Mathews 2013, Leader-Elliot 2014, Mitchell 2016). It can also account for the patterns of change that occur over time in more granular delineations of such phenomena (Burkart and Medlik 1982, p. 40, McIntosh et al. 1995, p. 10, Richards 1997a, p. 24, Gilbert 2004, p. 51, UN [United Nations] et al. 2010, p. 9, Vanhove 2011, 2016). Additionally, this working definition fits well with other current academic and legislative

definitions (Hosty and Stuart 2001, UNESCO 2001a, Green 2004, pp. 1–5, Australian Government 2018, Australasian Institute for Maritime Archaeology 2020, World Tourism Organisation (UNWTO) 2020).

Ultimately, however, maritime cultural heritage tourism is more than just a definition, field of enquiry, or simple recreational activity. It is a unique physical and mental landscape in which people can connect to their collective or communal past, undertake an explorative adventure into the unknown, or immerse themselves in history. Importantly, the value of a maritime cultural heritage sites comes from more than just its presence as a piece of history or its role as a tourism destination. The sociocultural impacts a site can have on visitors and those associated with its past can seem inconsequential, however, understanding the nature of these impacts can provide great insight into the behavioural and emotional affectations a site can have through the impartation of experience. Demystifying these connections could be the difference between a vocally supportive and heritage-positive public, and the poignantly disinterested corporate sponsor. Consequently, it is vital to expand and improve the ways in which maritime archaeologists communicate and engage with the general public, and the only way to do that is to effectively measure how and why people become personally invested in a maritime cultural heritage site.

This chapter will continue to contextualise Australian maritime cultural heritage tourism according to this working definition, and will argue, in broad terms, for the development of an original, interdisciplinary model of inquiry for determining the economic and sociocultural value of maritime cultural heritage sites. It will discuss the issues maritime cultural heritage tourism currently faces by exploring both maritime archaeology as a discipline (within Australia) and its trepidatious relationship with the Australian tourism industry. This chapter will also explore some of academia and the industry's attempts to socially profile maritime cultural heritage tourists, as well as current methodologies for extrapolating economic and sociocultural value from maritime cultural heritage tourism sites. Finally, this chapter touches on some of the difficulties practitioners and managers face when incorporating tourism ventures into maritime cultural heritage site management, reinforcing the need for a collective approach to maritime cultural heritage tourism and conservation.

2.1 The Archaeological Perspective

Maritime archaeology in Australia is a relatively young field and has, until recently, focused strongly on investigating shipwrecks. A key component of understanding this focus is to understand how the field developed and what factors impacted its progress and development as something both academic and professional. This section reviews the history of maritime archaeology in Australia and how its formation impacted the development of legislation, which then influenced what sites practitioners reviewed, engaged with, and ultimately promoted. It closes by reviewing what types of maritime cultural heritage tourism engagements currently exist in the South Australian and Australian contexts, and how, over the last few decades, these engagements have fallen short of modern requirements.

2.1.1 Formalisation and Legislative Concerns

During the 1960s, Australian archaeology was principally considered a terrestrial discipline that focused on the Traditional Owner groups of the country's interior while questions relating to colonialism were typically answered through the investigation of built heritage in cities and towns (Henderson 2001). Graeme Henderson notes that, during the mid-20th Century, Australian archaeologists largely ignored cultural items – other than shipwrecks – located beneath the water's surface, a sentiment arguably reproduced on the global scale (Henderson 2001, p. 2). It was not until the mid-1980s that terrestrial archaeologists began investing significant resources towards the maritime environment and the study of seafaring, and it was during this period that maritime archaeology became a formal discipline in Australian academia (Henderson 2001). Despite its niche as a sub-discipline of archaeology, maritime archaeology has been practised keenly since its inception, with at least one maritime archaeologist[2] operating in each state or territory across the country, and several universities offering a range of individual topics or degrees relating to the field.

Indeed, maritime archaeology's considerable popularity among amateurs and hobbyists in the late-20th Century likely contributed to the discipline's mainstream adoption in an arguably

[2] Notably, the employment of maritime archaeologists at the state or territory level has generally been decreasing. In South Australia, for example, five maritime archaeologists were employed to oversee the legislative management of maritime sites in the 1980s. However, due to repeated budget cuts, only one position remains. Similar issues can be seen in Tasmania, where the state level maritime archaeologist's position is only part-time and in Queensland where in 2021, the team dropped to a single employee who also oversees terrestrial archaeology. This highlights both the lack of recognition maritime cultural heritage receives and the consequent decreases in funding for its preservation.

problematic manner. The formalisation process began after recreational divers discovered and subsequently looted several Dutch shipwreck sites in Western Australia, specifically *Batavia, Vergulde Draeck, Zuytdorp,* and *Zeewijk* in the 1960s (Henderson 2001, p. 2, Hosty and Stuart 2001, p. 5). The events were initially disastrous for heritage advocates and the archaeological record when a group of recreational divers publicly raised an anchor, cannon, and other smaller artefacts from the remains of *Vergulde Draeck* in April 1963. By October, reports emerged that explosives had been placed on the site in an attempt to obtain more artefacts or 'loot' (Henderson 1986, p. 69–71, Hosty and Stuart 2001, p. 6). This period also saw an increase in reports of people looting the other Dutch vessels, including the further use of explosives on *Trial*, Australia's earliest known European shipwreck. This caused widespread concern among the Western Australian public, sparking fears that shipwrecks of national interest and significance could – and would – continue to be destroyed by treasure hunters. The potential losses were not only physical, but existential, and included any information such relics may contain concerning the technologies and seafaring techniques of their day (Dash 2002, Rodger 2009). It was the public's reaction that catalysed changes to the *West Australian Museums Act 1969* to better protect maritime heritage, and which led to the creation of the *Maritime Archaeology Act 1973.* It was under this new legislation that the Western Australian Museum became responsible for the protection of shipwrecks, resulting in the employment of Jeremy Green as Curator of Maritime Archaeology and Colin Pearson as Head of Conservation in the early 1970s. Thus, the museum became the first proactive body in Australia to undertake shipwreck investigation, protection, and conservation (Hosty and Stuart 2001, p. 6).

Soon, each state and territory began developing their own legislation. After the *Maritime Archaeology Act 1973*, the federal successor was next: the *Historic Shipwrecks Act 1976.* It was similar in nature and designed to protect shipwrecks in all of Australia's territorial waters. Other pieces of legislation that followed suit include the *Heritage Act 1977* in New South Wales, *Historic Shipwrecks Act 1981* in South Australia, *Heritage Conservation Act 1991* in Northern Territory, *Queensland Heritage Act 1992* in Queensland, *Historic Cultural Heritage Act 1995* in Tasmania, and the *Heritage Act 1995* and *Heritage Historic Shipwrecks General Regulations 1996* in Victoria, all of which favoured the protection of shipwrecks and their associated artefacts to the exclusion of other forms of maritime cultural heritage. This was perhaps due to the implied, and occasionally literal, definitions of maritime cultural heritage as 'shipwrecks' within Australia, a fact that further normalised the idea that shipwrecks represented the pinnacle of maritime cultural heritage.

Recently, steps have been taken to rectify this narrow legal definition of what constitutes maritime cultural heritage, thereby expanding what sites can be legally protected under legislation. In 2018, the federal *Underwater Cultural Heritage Act* came into effect. This bill is the first step towards Australia ratifying the United Nations Educational, Scientific, and Cultural Organisation's (UNESCO) 2001 *Convention on the Protection of Underwater Cultural Heritage* (hereafter UNESCO 2001 Convention). This milestone document defines underwater cultural heritage as 'all traces of human existence having a cultural, historical, or archaeological character which have been partially or totally under water, periodically or continuously, for at least 100 years', encompassing 'objects of a prehistoric character', as well as structures, buildings, and aircrafts, (UNESCO 2001b, p. 51). It is important to note that this definition is for 'underwater' cultural heritage material, and not specifically 'maritime' cultural heritage material, which highlights an interesting ideological and semantic distinction. Nevertheless, the *Underwater Cultural Heritage Act 2018* expands the legal definition of what is protected as maritime cultural heritage to include any cultural heritage that is either fully or partially submerged in water. Additionally, state and territorial agencies are seeking to update their respective legislations to align with the Federal and International legislative guidelines (Viduka 2014). This may prove to be too little, too late, however, as the lingering emphasis on shipwrecks has already exerted its influence on heritage trails across the country. *All* maritime cultural heritage trails in South Australia, for example, focus on historic shipwrecks to the exclusion of other forms of maritime cultural heritage (State Heritage Unit 1987, 1991, 1995, 1996, 2000, 2005, Strachan 1995).

Another enduring legislative concern involves the compartmentalised protection of *some* forms of maritime cultural heritage material because it happens to satisfy the conditions of other, terrestrially focused legislation, such as the *Heritage Act 1993* and the *Aboriginal Heritage Act 1988*. While protection for some material is certainly better than none at all, relying on incidental legislative overlap promotes a separation of heritage 'types', which ultimately bleeds into the tourism industry and academia itself. Consequently, the features of maritime cultural heritage tourism sites are often examined separately, rendering them isolated elements rather than pieces of a greater cultural landscape. This problem is exacerbated by the fact that most legislation across the globe is, of course, developed independently by governments concerned with a specific geographic region, resulting in a myriad of classificatory linguistics that may not remain consistent across populations. As an example, the study of maritime cultural heritage material has been referred to variously as nautical archaeology, underwater archaeology, marine archaeology, and riverine archaeology by legislative bodies from different nations, which often makes it difficult to agree on a unified vocabulary or methodological approach. This conflicts with research that suggests visitors to

cultural heritage sites prefer to engage with holistically thematic interpretation trails (Sorset 2014), something that maritime cultural heritage tourism has struggled with since the industry's formalisation.

2.1.2 The Rise and Stagnation of the Heritage Tourism Trail

Despite the public's negative reaction to the looting of Dutch and English shipwrecks in Western Australian waters during the 1960s and the creation of new legislation and proactive maritime archaeological roles throughout the 1960s and 1970s, there remained few active 'professional' maritime archaeologists in the country until the 1980s and 1990s. This resulted in a heavy reliance on avocational and recreational divers to assist with legislation enforcement. In fact, it was initially groups of invested community members who assisted in producing site inspection reports, undertaking historical research, and compiling excavation reports for professionals in the field, many of whom would go on to pursue a formal education and training in maritime archaeology (Hosty and Stuart 2001, p. 7). This led to another boost in public interest for maritime archaeology, one that some scholars argue persists in the psyche of many Australians today as part of our national identity (Henderson 2001). Thus, it was during the 1980s that maritime cultural heritage tourism began to enter the discipline's vocabulary and manifested as the creation of the country's first terrestrial and submerged interpretation trails. The development of these trails coincided with a global phenomenon, in fact, which saw the expansion of public interpretive programs beyond the traditional forums of museum exhibitions, site tours, and site open days, to include *in situ* – and permanently accessible – heritage interpretation (Philippou and Staniforth 2003).

In Australia, the first maritime cultural heritage tourism trail was developed in Western Australia by Michael McCarthy in conjunction with the Western Australian Maritime Museum and the Rottnest Island Board. The *Rottnest Island Underwater Shipwreck Trail* included underwater interpretive signs and land-based markers with an accompanying booklet, making it accessible to a range of audiences under a range of circumstances. Since then, Western Australia has been one of the most active states in producing maritime cultural heritage tourism trails, though they unsurprisingly favour shipwreck sites. Western Australia has 21 trails (18 of which are shipwreck-based). In South Australia, the state government heritage agency has created nine shipwreck trails, while its Victorian equivalent has created eight (though they have since been incorporated into two larger regional shipwreck trails). The other states and territories, meanwhile, have established few or a limited number of maritime cultural heritage tourism trails, and generally rely on local governments to do so. New South Wales, for example, principally relies on local councils, historical societies, and museums to establish

maritime cultural heritage tourism trails, though Tasmania, Northern Territory, and Queensland have implemented a number of other educational and tourism ventures since the 2000s (Philippou and Staniforth 2003).

Though their presence is undoubtedly positive to some degree, the existing trails are not without issues, and retroactive measurements of their relative success and/or efficacy are few and far between (particularly from an economic or sociocultural perspective). Within each state, there is a general lack of standardisation to maritime cultural heritage tourism engagement, and while complete uniformity in design or implementation is both unnecessary and unrealistic, basic consistency would likely benefit maritime cultural heritage tourism as a whole (Ballantyne and Hughes 2003). In fact, some scholars suggest that minimal-consistency actions, such as identical trail branding, would help maritime visitors mentally link trails to create a cohesive maritime heritage story across multiple regions (Strachan 1995, Philippou and Staniforth 2003). As of 2022, however, existing maritime cultural heritage trails remain independently branded and maintained even within the same state, let alone across state boundaries.

More significant issues arise from the general lack of any semi-standardisable review process, making it impossible to gauge the relative success of any one trail in effectively communicating interpretation. As an example, the country's oldest persistently available tourist trail – *Rottnest Island Underwater Shipwreck Trail* – has not undergone a single formal review into its overall efficacy in its near-forty-year existence. Consequently, little is known about the site's visitation and economic or sociocultural impact data. This lack of review post-installation is mirrored in other states, including South Australia and Victoria, despite Australian maritime archaeologists publishing arguments in favour of open public communication, education, and interpretation since the 1980s (McCarthy 1983, Edmonds et al. 1995, Jeffery 2001, p. 317, Philippou and Staniforth 2003, Souter 2006). With this in mind, it is clear that Australian maritime archaeologists have long understood the need to keep the general public interested in maritime cultural heritage and have frequently deployed its popular 'mystique' to that end. It is therefore unfortunate that many practitioners have seemingly adopted a 'fire-and-forget' method of installing interpretation and developing trails, or that instances of public education are created alongside the assumption that its mere existence can be considered a 'successful engagement'.

South Australia, like all other Australian States and territories, also suffers from a lack of funding and resources, which has limited the state's ability to review or expand its maritime cultural heritage tourism trails. Despite being one of the largest creators of such trails between

the late 1980s and early 2000s (the 'golden age' of Australian maritime archaeology (Staniforth 2000)) the state has explored, but rarely delivered, new and engaging maritime cultural heritage tourism opportunities. One example of this is William Jeffery's proposal in 2001 to develop heritage trails in 11 significant ports across the state, all of which played an important role in its colonial history. Jeffery argued that each port should house a regional shipwreck interpretation centre, allowing visitors to explore the area's unique maritime cultural heritage (Jeffery 2001). He claimed his proposal was predicated on the broad aims of creating awareness of the importance of historical shipwrecks, providing an avenue for visitors to adventurously explore past technologies and cultures, encouraging visitors to undertake day trips to old ports, and encouraging visitors to become informed about the people associated with the shipping industry (Jeffery 2001, p. 319). Unfortunately, Jeffery's plans were never actioned.

Despite a general unwillingness or inability to quantify the efficacy of maritime cultural heritage trails or revisit their development, maritime archaeologists have published numerous arguments claiming that good public interpretation can have wide-ranging positive outcomes. Nutley, for example, claims that public interpretation assists in garnering favourable legislative protections for heritage assets (1987). Others laud the role of museums as conservators, and describe them as the apex of a combinatory approach to research and public engagement (Henderson 1990, Staniforth 1990, 1993, Stanbury 1991). While such publications reinforce the need to engage with the public, they tend to avoid topics stemming from a tourism-based discourse, like identifying a visitor's social profile, identifying the efficacy and value of a heritage asset's social impact, and how to induce positive visitor behaviours through such impacts. In an era of economic rationalisation, however, developing a tourism experience which effectively communicates the site history to the public is paramount to securing the public's moral and financial interest, and *needs* to be studied from an archaeological perspective. While institutions like museums frequently address tourism (to varying extents) in annual reports, *in situ* maritime cultural heritage tourism sites generally suffer from a complete lack of any review process. Of course, it is important to note that museums are under ever increasing pressure to limit collection acquisitions and conservation activities to focus on 'blockbuster' exhibits to draw in vast quantities of visitors and money, leading to a slippery slope definition of what is considered successful as an exhibition *and* a museum (Hosty 2006, p. 160). However, it is the contention of this thesis that using fiscal gains as a sole measure of success is a fundamentally flawed practise that should not occur, even from a purely economic standpoint (see Section 2.3.1 for a discussion on the importance on measuring sociocultural value).

Some scholars argue that routinely reviewing and incorporating public feedback into the development of interpretation is not only desirable, but necessary for its continued relevance (Henderson 2001, Comer and Willems 2019a, Court et al. 2019, Hølleland 2019). Indeed, it seems including the public and their perspectives within Australian maritime archaeology itself is increasingly gaining traction, albeit in more traditional forms of archaeological research (Duncan and Gibbs 2015, Fowler 2015, Fowler et al. 2015, Straiton 2015, Straiton and Stark 2018, Fowler 2019). Often, these studies combine the modern public's perception and understanding of archaeological sites into the archaeological assessment process, and maritime scholars who conduct these studies frequently use maritime cultural landscapes as a foundational theory to describe maritime cultural heritage sites as fluid, changing, and interconnecting environments that can enable connections across time and space (Westerdahl 1992, Ford 2011, Carter 2012, Duncan and Gibbs 2015, Fowler et al. 2015, Straiton 2017, Fowler 2019). Furthermore, some researchers have identified that modern communities continue to experience connections to archaeological sites, albeit for different reasons than communities of the past (though they are arguably no less significant) (Straiton 2015). Like its contemporary frameworks, however, maritime cultural landscape theory and its advocates are yet to adopt any broadly accepted methods for measuring or detailing a community's connection to a site, a surprisingly common problem in archaeological studies throughout the world (Ford 2011, Duncan and Gibbs 2015, Fowler 2015, Straiton 2015).

Of course, many scholars and practitioners argue that a 'one-size-fits-all' approach for assessing significance and developing a management plan is inappropriate (Comer and Willems 2019b). This argument seems true by way of common sense: each maritime cultural heritage site possesses a unique combination of physical features, histories, interest groups, and vested individuals feeding into their potential economic and sociocultural value, which would undeniably impact the manner in which the site – and its associated interpretation – needs to be considered. Yet, adopting a completely case-by-case approach to maritime cultural heritage management also creates potential issues for managers and groups who oversee multiple cultural heritage assets. In South Australia, *one* practitioner oversees the legislative' management of over *800* shipwrecks (Heritage South Australia 2020a), rendering a case-by-case strategy of enforcement, management, interpretation, assessment, and protection woefully ineffectual. Furthermore, when examining the economic and sociocultural value of sites on a purely case-by-case basis, results *cannot* be compared across sites. With scholars all over the world arguing that these assessments are fundamental components for the development of site management plans and vital to the successful management and protection of cultural heritage sites, it seems absurd to not search for ways to accurately compare site data.

Nevertheless, some case-by-case malleability *is* necessary. When cultural heritage sites are threatened by development, for example, managers are often forced to make calculated decisions about the future of a site based on factors like their level of preservation, age, historical significance, aesthetics, known rarity, uniqueness, and archaeological or scientific significance, all of which require a degree of subjective judgement (NSW Heritage Branch 2009, Russell and Winkworth 2009, Heritage South Australia 2020b, Lesh and Myers 2021). This also often includes weighing up the potential or perceived fiscal gains from the protection versus the demolition of a site (Bond 2019b, Washington 2020, Sutton 2021). Consequently, it is important to both be able to make site-to-site comparisons *and* to incorporate some level of subjective analysis into a semi-standardisable toolset. After all, one local community may consider a site to be a great weekend getaway, while the other considers it a sacred historical enclave. Both may report the site to be of strong sociocultural value, but to whose identity is it integral, and how do you manage a site and design interpretation around that fact?

Additionally, site-to-site comparisons is important to addressing the ongoing role of maritime cultural heritage sites in modern society. A significant cultural site can contribute to a community's identity and their understanding of their own history, which constitutes another reason why it is important to assess both the economic and sociocultural value of such sites, and to subsequently compare the data to at least some degree with others. Doing so allows heritage managers and practitioners to adequately understand which sites have the largest economic, sociocultural, and environmental impact to their local communities and visitors. This is not to say that heritage managers are currently blind to such conceptualisations, but in South Australia and Australia at large, there is simply almost no published data that would allow such informed decision making beyond immediate fiscal or sociocultural consequences. The question should not be how can archaeology function *without* tourism, but how can archaeology *use* tourism to discover and cultivate positive economic and sociocultural connections between visitors, maritime cultural heritage material, and its benefactors?

2.2 Maritime Cultural Heritage Tourism by the Numbers

Tourism is an inevitable consequence of free-movement and a *laissez-faire* market (Yap 2010, Rudež 2018), and a reality that, despite regularly exercising its influence on the allocation of public and private resources, many archaeological practitioners opt to castigate or ignore. While it is true that tourism is often at odds with the ideals of conservation, the industry itself is a powerhouse at shaping public perception and behaviour and arguably one of the most important tools in a conservator's kit. Undeniably, the maritime cultural heritage tourism industry generates economic value in the form of localised and generalised revenue, and though it remains understudied in Australia, it continues to grow and persistently seek the kind of 'unique' visitor experiences only maritime cultural heritage can provide. Due to the heavily localised manner in which maritime cultural heritage sites are managed in Australia, this represents both an opportunity and a burden for many small communities, industries, and businesses expected to facilitate access to local heritage material. Still, it is impossible to discuss an interdisciplinary approach to assessing site value without exploring the more materialistic nature of tourism. In particular, this section focuses on the *economic* value of maritime cultural heritage tourism. It examines some previous and currently employed methods of measuring the potential monetary impact cultural heritage tourists have on local communities. It argues that adopting a semi-standardisable alternative will help archaeological practitioners and tourism operators contextualise the role of their disciplines on the state and national level, and thus strengthen lobbying efforts aimed at the ongoing protection and conservation of maritime cultural heritage sites.

2.2.1 The State of Cultural Heritage Tourism in Australia

Tourism is currently one of the world's largest and fastest growing economic sectors and is a mass modern phenomenon (Walker and Carr 2013b, p. 21, WTO 2017, p. 2). Globally, the tourism industry boasts an annual revenue of over $3.2 trillion (USD)[3], with the cultural heritage sector contributing a significant portion of this (Baram 2008, Kourtit et al. 2019). Like the rest of the world, Australia is continually pushing to grow its tourism industry, with many states and territories independently identifying tourism as an important concern for the current and future economic growth of communities (Tourism Victoria 2013, South Australian Tourism Commission (SATC) 2019c, Destination NSW 2020, Tourism Research Australia 2021). During the 2018–2019 financial year, tourism reportedly contributed $60.8 billion (AUD) to

[3] The figures presented in this research are pre-COVID-19. Following years will likely record an off-trend reduction due to pandemic related travel restrictions.

Australia's national gross domestic product and accounted for approximately 5% of the national work force (nearly 666,000 jobs) (Tourism Research Australia 2020a, pp. 2, 8). Despite the significant role tourism plays in the Australian economy, however, the Australian populace has limited comprehension regarding the industry's influence or operational parameters. A 2016 Tourism Australia survey of 1,000 Australians revealed that nearly three quarters (73%) of respondents underestimated the economic significance of tourism as the country's number one 'export' industry (Tourism Australia 2017, p. 4). Furthermore, 60% of respondents *underestimated* the number of inbound tourism arrivals (Tourism Australia 2017, p. 5) and 37% *overestimated* the number of Australians employed in tourism (Tourism Australia 2017, p. 7). Half of respondents also underestimated how many international visitors travel to regional (non-metropolitan) destinations (Tourism Australia 2017, p. 7). Interestingly, a majority of respondents identified the country's 'aquatic and coastal' amenities as a key element for international marketing (19% first preference; 16% second preference; 13% third preference) (Tourism Australia 2017, p. 17).

Indeed, Tourism Research Australia (TRA) recently argued that, while Australia has a significant domestic tourism industry, concerted efforts should be made to substantially grow its international market share (Tourism Research Australia 2020a, p. 4). Since travelling to Australia from overseas typically involves long-haul flights, extensive planning, and other high costs for many international visitors, marketing has focused on a handful of wealthy regions to draw in 'high yield travellers' (Tourism Research Australia 2020a, pp. 4–5). This approach is currently working; Australia received 9.3 million international visitors in the 2018–2019 financial year, a 3% increase from 2017–2018 international visitor numbers (Australian Bureau of Statistics 2020, Tourism Research Australia 2020a, pp. 4–5) (Table 2-1). Visitors reportedly come to Australia for its high levels of perceived safety and security, and the apparent value for money the country represents in many overseas markets. Additionally, visitors also want to indulge in the country's 'world class nature', 'food and wine', and 'aquatic and coastal' experiences (Tourism Research Australia 2018a). The most popular activities undertaken by visitors specifically to South Australia include 'eating out', 'shopping', 'sightseeing', and 'going to the beach' (South Australian Tourism Commission (SATC) 2018a). Furthermore, TRA notes that, for the year ending December 2019, 8.7 million international visitors to Australia collectively spent a total of $45.4 billion and stayed 274 million nights in the country (Tourism Research Australia 2020b). This data confirms that the Australian tourism industry is not only continuing to grow, but also represents a significant economic contribution to the nation (Figure 2-1).

Table 2-1 International and domestic visitor numbers to each state and territory for the year ending December 2019 (Tourism Research Australia 2020b, 2020c).

Visitor destinations	International visitors (million)	Domestic day trips (million)	Domestic overnight visitors (million)
New South Wales	4.384	75.0	38.9
Victoria	3.138	67.5	29.7
Queensland	2.783	52.8	25.9
South Australia	0.488	17.0	8.0
Western Australia	0.996	24.3	11.0
Tasmania	0.283	7.3	3.2
Northern Territory	0.299	1.6	1.7
Australian Capital Territory	0.270	2.6	3.2
Total[4]	8.7	248.4	117.5

Figure 2-1 Annual tourism income from day trips, domestic overnight, and international visitors (billions).

Despite the lack of any standardised or granulated breakdown in visitor type, data suggests domestic visitors throughout the country are increasingly participating in outdoor activities, including visiting cultural heritage sites. During 2017, the outdoor activities that saw the largest percentage of domestic visitors were snow skiing (37%), visiting an Indigenous site or community (22%), water activities and sports (20%), bush and rainforest walking (14%), visiting national parks (14%), and attending a sporting event (11%) (Tourism Research

[4] Items provided within the body of the table may not add to column totals due to estimation ranges from the survey (Tourism Research Australia 2020b, 2020c).

Australia 2018b). Unfortunately, the equivalent data for the year ending December 2019 are unavailable, so it is difficult to determine the veracity of this trend. Data relating to specific industry sectors for 2019 are also unavailable, forcing researchers to rely on reports from previous years. In addition, while the cultural heritage tourism sector is generally considered a large industry globally (Thomas and Langlitz 2019, p. 70), less is known about the sector's breakdown within Australia. At the very least, many federal and state level reports cite the top two activities for both international and domestic visitors as 'visiting museums or art galleries' and 'visiting heritage buildings, sites, or monuments' respectively (Tourism Research Australia 2010), though international visitors were more likely to 'experience aboriginal art/craft or cultural displays' (20% of travellers) or 'visit an aboriginal community' (11% of travellers) than their domestic counterparts (Tourism Research Australia 2010).

Research suggests that the tourism industry in South Australia is also continuing to grow (South Australian Tourism Commission (SATC) 2019d). Results from the SATC's annual reports demonstrate that the industry's economic value grew by $2.5 billion (from $5.4 billion in 2015 to $7.9 billion in 2019) (South Australian Tourism Commission (SATC) 2015, 2019d), bringing the state well within reach of its December 2020 target of $8 billion in tourism revenue (South Australian Tourism Commission (SATC) 2014, pp. 4–5). Unfortunately, by April 2020, these targets were rendered unobtainable by the advent of COVID-19, with the industry reporting a collective loss of approximately $430 million per month and a total of 26,000 estimated jobs (Gailberger and Sulda 2020). Regardless, the SATC released a visitor economy sector plan for 2030, which outlines a strategy to increase the industry's gross intake to $10 billion by 2025 and $12.8 billion by 2030 (South Australian Tourism Commission (SATC) 2019c).

With the SATC's strategy, the South Australian government is unequivocally joining its peers' push for the continued growth of every state's tourism industry. While an emphasis has in the past been placed on the state's nature-based and food and wine sectors (South Australian Tourism Commission (SATC) 2016a, p. 3, 2017, p. 7, 2019d, p. 14), this is no longer the case, with the SATC identifying all forms of tourism as 'key [players] in the future prosperity of the state' (South Australian Tourism Commission (SATC) 2016a, p. 2). In 2015, the South Australian Heritage Unit effectively argued for the development of a dedicated Heritage Tourism Plan (State Heritage Unit 2015, p. 26), which the state government agreed and released in late 2021. The Australian tourism industry has also recognised a need to engage with cultural heritage, discussing its importance at the inaugural Australian Heritage Tourism Conference (AHTC) in 2019. The same year also saw the official commencement of a South

Australian state-wide Heritage Tourism Strategy, along with the establishment of the Heritage Tourism Advisory Board[5].

But what exactly is the economic benefit of a thriving cultural heritage tourism sector in South Australia? In comparison to their non-heritage inclined contemporaries, cultural heritage visitors often stay longer and spend more at and around their destinations (Kerstetter et al. 2001, National Trust 2018, Department for Environment and Water 2020). Nationally, it is estimated that just over half (51%) of all international arrivals to Australia are cultural heritage visitors, which is in addition to the cultural heritage tourism market being dominated principally by domestic travellers (Tourism Research Australia 2010). Unfortunately, there is limited research examining the cultural heritage tourism sector in Australia – including South Australia – which is likely due to a long-standing preoccupation with the environmental and nature-based tourism sectors (State Heritage Unit 2015). Nevertheless, data from Tourism Research Australia suggests that in 2009, 18.8 million domestic overnight and domestic day visitors participated in some form of cultural heritage tourism activity (Tourism Research Australia 2010), and that these visitors did, on average, spend more time and money at and around their destinations than those who engaged in other forms of tourism (Tourism Research Australia 2010). This builds on a 2005 study, which revealed that international cultural heritage visitors to Australia (from 1999-2003) spent, on average, $3,054 throughout their trip compared to their non-cultural heritage counterparts, who spent, on average, only $1,762 (Hossain et al. 2005, p. 11).

Tourism Research Australia's data show that these numbers increased in 2009, when international cultural heritage visitors spent, on average, $6,280 throughout their trip compared to their non-cultural heritage counterparts, who spent, on average, $3,832 (Tourism Research Australia 2010). Domestic cultural heritage visitors also spent more money on their trips, with overnight visitors spending, on average, $1,030 and day trip visitors spending, on average, $133, as opposed to their non-cultural heritage counterparts, who spent, on average, $578 on overnight trips and $100 on day trips (Tourism Research Australia 2010). There are currently no studies examining such data specifically within South Australia, and there are only a few publicly available studies that explore the general economic significance of the South Australian cultural heritage tourism industry. This includes two reports focused on the heritage town of Burra (Cegielski et al. 2000, Mules 2001), and a third focused on built heritage within the city of Adelaide (Carlsen 2015). Unsurprisingly, however, all three – in conjunction with

[5] The researcher assisted the government in the development of this plan, and the initial reviews from this research fed into and helped inform the strategy itself.

the state's annual museum reports – paint a positive economic picture of South Australia's cultural heritage tourism industry.

Mules (2001) examined the economic impact of tourism at Burra along with two other historic mining towns in Australia, including Maldon in Victoria and Charters Towers in Queensland. Mules selected each site because they have all developed a tourism industry that relies on the mining history of the respective area and all contain *in situ* cultural heritage material in non-metropolitan regions[6] (Mules 2001, p. 61). Locals trained by researchers from the University of Canberra conducted interviews with over 1,300 visitors between February and May 1999 to provide an initial overview of the economic benefits tourism had brought to each site and their surrounding communities (Mules 2001, p. 61). Of the three sites, Maldon had the most survey respondents (746), then Charters Towers (368), then Burra (261) (Mules 2001, p. 63). Interestingly, Mules's research identified that most of the visitors to all three locations were day trippers despite the rural location of all townships. However, the average spend-per-visitor differed depending on the type of trip taken (day trip, package trip, or overnight trip). Overnight visitors had the highest average spend-per-trip, while day trippers had the lowest average spend (2001, p. 73). After combining these figures with an input-output economic model, Mules estimated that the tourism industry contributed $4.5 million to each district's Gross Regional Product (GRP – the regional equivalent of Gross Domestic Product) (2001, p. 73).

Concurrently, Cegielski, Janeczko, Mules, and Wells (Cegielski et al. 2000) studied the nature of visitor spending at Burra, which involved conducting 410 additional interviews with visitors between March and June 2000. Cegielski et al. determined the mean and overall spend for each visitor type (day trippers, package visitors, or overnighters), estimating that 40,914 people visited Burra and subsequently contributed $4.48 million to the local economy (Cegielski et al. 2000). Interestingly, 59% of these visitors were intrastate travellers while almost all the remaining visitors were from interstate – and predominately from New South Wales and Victoria – leaving only 2.7% as international visitors (Cegielski et al. 2000). Cegielski et al. also investigated visitor behaviour while at the township, focusing on respondents' views regarding cultural heritage and their satisfaction with their visit. They discovered that 25% of respondents travelled to Burra *specifically* to visit the cultural heritage sites, while 96% of respondents said they *had* visited cultural heritage sites during their trip. Unfortunately, Cegielski et al. failed to provide any meaningful insights into who the visitors of

[6] Mules argued that economic impacts would manifest more strongly in rural regions and warranted investigation.

Burra were beyond where they were from, where they visited, and what interpretation they wanted to see at each location. They did, however, determine that 80% of respondents enjoyed their trip (Cegielski et al. 2000).

The third and most recent study into the economic significance of cultural heritage tourism in South Australia is an independent report commissioned by the Adelaide City Council in August 2015. Its goal was to assess the economic benefits that built heritage tourism has within the city of Adelaide and was conducted by Professor Jack Carlsen of Curtin University's Tourism Research Services. Carlsen targeted visitors who were spending at least one night in Adelaide, while expressly excluding city workers, commuters, and people living within 100 kilometres of Adelaide's CBD (Carlsen 2015). Carlsen conducted 400 face-to-face interviews at selected heritage locations across Adelaide to determine the main reason for each respondent's visit, the activities they undertook, their perception of cultural heritage, the amount of money they spent, their travel party size, and the length of their stay (Carlsen 2015). Carlsen analysed responses to estimate the percentage of visitors whose travel expenditure can be directly attributed to heritage sites and what proportion of visitors would not have visited Adelaide if the heritage sites were inaccessible. Carlsen discovered that 12% of respondents listed cultural heritage as their main reason for visiting each attraction, with 28% of respondents saying cultural heritage was 'important' or 'very important' to their visit and 41% of respondents undertaking activities at a cultural heritage place or location (2015, p. 7). Carlsen also determined an overall 'attribution factor' of 27%: that is, 27% of visitor expenditure, on average, was directly attributable to cultural heritage tourism sites located in Adelaide's CBD (Carlsen 2015). Based on the attribution factor and number of visitors from 2013 to 2014, Carlsen calculated that $375 million worth of visitor expenditure can be attributed to cultural heritage tourism in the City of Adelaide council region (2015, pp. 5–7, 19, 21). Despite limited data sets focusing specifically on the cultural heritage tourism industry in South Australia, it is ultimately clear that cultural heritage – including *maritime* cultural heritage – is a potentially profitable, woefully understudied source of capital for the state and local communities.

2.2.2 Old and New Ways of Parsing Economic Data

Archaeologists frequently value cultural heritage sites by examining their historical, scientific, and aesthetic qualities, which, while important, does little to determine a site's economic impact on modern local communities. Some cultural heritage managers are ideologically opposed to considering economic data, claiming that doing so would dilute a site's perceived sociocultural value (Leaver 2001, p. 3, Burtenshaw 2014, p. 48). Local communities

themselves, however, often promote cultural heritage as tourism material, sometimes as part of a concerted effort to invigorate their local economy (Leaver 2001, p. 3). This has led some scholars to argue that archaeologists and cultural heritage managers need to *assist* communities to responsibly utilise cultural heritage sites, rather than disparaging them for doing so (Leaver 2001). At the very least, economic data is demonstrably valued by both public and private investment concerns, many of whom are essential to the ongoing maintenance and conservation of cultural heritage material. So, how does one go about determining the best way to study the economic impacts of cultural heritage tourism?

Due to the general lack of both archaeological and tourism-based studies regarding the economic value of cultural heritage, adapting techniques from other industries is a necessary strategy (Young 2001, p. 242, Meyrick et al. 2018, p. 18), especially when the harsh realities of limited budgets, economic rationalisation, and the demand for 'fiscal feasibility' forces those concerned with cultural heritage to expound the economic viability of their work. Some scholars argue that this is a 'disturbing task', claiming the assessment of economic value is a degenerative process that puts profitability before historical, cultural, or social worth (Claesson 2011, p. 62, Nicholas 2018). Others argue that economic evaluations of cultural heritage have and can continue to be inclusive of both its tangible and intangible benefits (Engelhart and Aiken 1975, Poor and Smith 2004, Peacock and Rizzo 2008, Claesson 2011, p. 63, Cerisola 2019, Yining 2020). Regardless, there exists a veritable smorgasbord of valid, interdisciplinary approaches with which one might economically evaluate a cultural heritage site. While this is a positive truth, the issue remains that most approaches are simply deployed on an *ad hoc* basis within the cultural heritage tourism context; few are objectively tested, let alone standardised to any meaningful degree.

Of course, all models of economic evaluation possess a range of advantages and disadvantages that typically depend on multiple factors, including the type of data being collected and assessed, the amount of data available, the study area, the study area's size, and the project's overall budget (Hughes et al. 2005, p. 5). In the tourism industry at large, economic assessments commonly utilise models like computable general equilibriums, input-outputs, and money generation to determine the broad economic impact of a study's subject (Kumar and Hussain 2014, p. 361). Computable general equilibrium models constitute the most popular framework, perhaps because they are also one of the broadest. The models are designed to consider the structure of all industries within a discrete, national economy in tandem by incorporating theoretical multipliers to produce macroeconomic data (Kumar and Hussain 2014, p. 362). By doing so, they can help account for events like inflation, increases

in tax rates, unemployment, and the diversion of consumers to generate more relevant, actionable results (Kumar and Hussain 2014, p. 362).

Computable general equilibrium models can also be *comparative static* or *dynamic*, with the former comparing a discrete, national economy at two distinct points in time and the latter tracing variables through time at regular intervals (Dwyer 2015). Computable general equilibrium models are often used for large-scale, holistic policy creation or valuation, and are increasingly popular among tourism operators for covering a range of topics, including the economic impacts of changes to inbound tourism, the effects of tourism on income and poverty reduction, the economic impacts of climate change, and the economic impacts of unique events. Despite the models' ubiquity, however, they are often over-applied by tourism researchers. Because the models inherently rely on the collection of data at a state and/or national level, the statistical impacts they may purport to demonstrate are sometimes the result of confounding factors in global and/or localised trends and events. Computable general equilibrium models of economic value are thus 'gross measurements' of factors, and not the granular examination of a specific chain of events needed to draw causal conclusions (Dwyer 2015, p. 114). This makes it difficult to determine the role of cultural heritage tourism in Australia using computable general equilibrium models, particularly when site-level data is so publicly scarce.

Typically, computable general equilibrium models incorporate extensions of input-output models for many datasets, which also tend to operate on a broad scale over and above site-level data collection (Hara 2012, Kumar and Hussain 2014, pp. 361–362, Dwyer 2015). Standalone input-output models differ from computable general equilibrium models in that they are concerned with the description and analysis of a discrete economy's production process (Surugiu 2009), recoding data to instead produce simplified input-output tables offering comprehensive and detailed information regarding the movement of goods and services. In tourism, these models excellently highlight how the sector connects with other sectors of an economy, and enables researchers to determine how large the tourism sector is in relation to the overall economy of a specific area or region (Surugiu 2009, Los and Steenge 2010, Hara 2012, Bob et al. 2018). While input-output models are useful in determining the role of tourism within a broader economy, however, they rely on pre-collected and multitudinous site-level data to compute economic impact. In cases where this information is systematically underrepresented, non-existent, or otherwise unavailable (such as within Australian cultural heritage tourism), input-output models do not produce accurate datasets (Hughes et al. 2005, p. 5). This has led to misunderstandings between statisticians and practitioners, and adds to

a general sense of trepidation within the archaeology and cultural heritage tourism disciplines to engage with them (Hara 2012, Kumar and Hussain 2014, pp. 361–362, Dwyer 2015).

Conversely, money generation models focus on the localised economic impacts of tourism (Kumar and Hussain 2014, p. 363). These models rely on a simple formula for calculating economic impact: the economic impact of a site is the number of visits to the site, multiplied by the average spend per visit, multiplied by any relevant regional economic multipliers. Money generation models allow for the comparative analysis of tourist spending patterns between sites by providing a framework for semi-standardisable measurement, and is useful for examining granular causal factors, such as changes in sales, local job fluctuations, and the effects of tax policy (Kumar and Hussain 2014, p. 362). In cases where economic information is incomplete, missing, or unavailable, money generation models represent a broadly generalisable starting point for data collection. In terms of cultural heritage tourism, this allows researchers to assess management techniques and develop and design updated marketing campaigns across sites. Importantly, money generation models often incorporate regional economic multipliers that are specific only to the relevant region (Kumar and Hussain 2014). Though this demonstrates the pragmatism of a semi-standardisable model of economic evaluation, the use of such multipliers has been questioned in the past, largely due to the fact that they must assume at least one unique factor about a discrete economy that can adversely inflate or deflate economic data (Hughes et al. 2005, p. 5).

All three studies examining cultural heritage tourism in South Australia (those conducted by Mules 2001, Cegielski et al 2000, and Carlsen 2015 respectively) use a variation of a money generation model, albeit without regional economic multipliers. Mules and Cegielski et al. both calculated tourism economic expenditure at Burra from mean spend per visitor type (day trippers, package visitors, or overnighters) multiplied by the annual number of visitors in each type. Carlsen employed a variation of this, calculating visitor expenditure directly attributable to the cultural heritage sites by finding the average daily visitor spend, multiplying it by length of stay, the total annual number of visitors, and an attribution factor (Carlsen 2015). Technically, Carlsen's attribution factor could be considered a regional multiplier, though redeployed in a manner specific to the cultural heritage visitors themselves (calculated from the importance of heritage sites to visitors, their motivations for visiting heritage sites, and the activities they undertook in relation to the heritage material) (Carlsen 2015, p. 12). Carlsen's attribution factor therefore theoretically identifies what proportion of income generated by visitor expenditure is directly tied to the cultural heritage asset, or (alternatively) what percentage of income would be lost if the asset did not exist.

Despite the existence of methodological tools for assessing economic value, the cultural heritage tourism industry has yet to adopt a consistent, unified approach to conducting economic evaluations on its sites and assets, either globally or on a national scale within Australia. Yet, scholars across archaeology and the tourism industry agree that much more work is needed to fully understand the impacts of cultural heritage sites on visitors and local communities (Claesson 2011, p. 62, Firth 2015). Within cultural heritage tourism itself, academic interest in the economic value of maritime cultural heritage material remains lower than its terrestrial counterpart, with datasets numbering in the single digits in many countries (excluding annual business reports for privately operated sites). The United Kingdom (UK), for example, has so far commissioned just three studies exploring the economic impact of maritime cultural heritage tourism (ABP Marine Environmental Research Ltd 2010, Baxter et al. 2011, Beattie-Edwards 2013, Firth 2015). Scholars involved in the studies argue that the true value of maritime cultural sites is greater than what is currently known (Firth 2015, p. 7,11) because their benefits are so rarely quantified that intermittent and inconsistent snapshots can hardly provide a meaningful portrait of the industry as a whole, despite being vital starting points (ABP Marine Environmental Research Ltd 2010, Baxter et al. 2011, Beattie-Edwards 2013, Firth 2015).

The discrepancy of interest between terrestrial and maritime cultural heritage tourism may be due to pragmatic factors, such as the relative infancy of maritime cultural heritage investigation techniques or the generally inaccessible nature of underwater sites. Nevertheless, maritime cultural heritage continues to draw reasonable crowds, with five million people visiting the ten largest and most well-known maritime cultural heritage tourism destinations in the United Kingdom in 2014, including the National Maritime Museum, *Titanic* Belfast, *SS Great Britain, Mary Rose* Museum, and *Cutty Sark* (Firth 2015, pp. 31–32). This figure also excludes the potentially millions of people who visited free-to-access non-museum maritime cultural heritage tourism locations (Firth 2015, pp. 31–32). Unfortunately, few reports consider the economic value of free-to-access sites, as gathering data on visitor numbers and trip spend becomes infinitely more complicated when collection points are not already actively monitored. Nevertheless, the four UK studies represent the best methodological examples of economic evaluation the maritime cultural heritage tourism industry has produced to date.

The first study examined the economic value of an offshore shipwreck – *Coronation* – to the local community of Plymouth, England (Beattie-Edwards 2013). Beattie-Edwards argued that cultural heritage tourism in general contributes approximately £4.3 billion to the United Kingdom's GDP and provides employment for approximately 113,000 people (Beattie-Edwards 2013, p. 10), though he does not distinguish which portion of this economic

contribution is directly attributable to maritime cultural heritage sites, nor is it clear if other maritime cultural heritage tourism activities (for example, diving on a submerged shipwreck) are included in this figure. Beattie-Edwards interviewed divers to *Coronation* between 2011 and 2012, presenting them with a survey comprising 19 questions focused on how much time respondents spent in Plymouth, how much money they spent on their trip, and what other activities they undertook or intended to undertake. The study revealed that, after diving on *Coronation*, over half of respondents spent multiple days in the area to dive on other shipwreck sites (Beattie-Edwards 2013, p. 39). Respondents also reported spending money on shopping, visiting museums or other exhibitions, and engaging in other social activities. Beattie-Edwards was able to determine that divers to *Coronation* spent, on average, £77 per visit (2013, p. 40), which, when multiplied by the 264 named divers who visited the site during 2012 and again by the 700 collective visits made by those named divers, expanded to an annual tourist spend of between £20,328[7] and £53,900[8] in Plymouth attributable to the existence of *Coronation*.

The second study, which was published in 2011 by the Scottish Government and reuses raw data from a 2010 ABP Marine Environmental Research LTD report, examined both the economic and sociocultural value of the country's maritime cultural heritage tourism sites. It argued that, regardless of a site's location and relative inaccessibility, maritime cultural heritage sites can constitute the nexus of a 'sense of place' for many locals, and can foster a sense of wellbeing and identity linking communities together (Baxter et al. 2011, p. 156). Furthermore, the study claimed that this collective identity can simultaneously enhance the aesthetic appeal of the site to locals, which may lead to more visitors attending maritime cultural heritage during their trips (Baxter et al. 2011, p. 156). The report also discusses employment opportunities inherent to maritime cultural heritage sites, citing them as a positive social value despite job numbers also being intrinsically linked with economic value. A gainfully employed local is more likely to reinvest a portion of their wage into nearby businesses, after all.

Problematically, the datasets for these two reports were collected from a small proportion of maritime cultural heritage tourism sites in Scotland. Scotland claims to have approximately 14,000 maritime cultural heritage sites, all of which have a range of management protocols, with the majority being unmonitored free-to-access sites like beaches. Only 97 of these sites are actively managed and monitored for visitation data. Of the 97 monitored sites, 20 were

[7] Annual income based on the £77 (per trip spend) multiplied by the 264 named visitors.
[8] Annual income based on the £77 (per trip spend) multiplied by the 700 individual visits.

selected for inclusion within the study (ABP Marine Environmental Research Ltd 2010, Baxter et al. 2011). The sites were reviewed for a 12 month period over the course of 2008, from which ABP Marine Environmental Research LTD determined that £1.55 million of visitor expenditure from 1.9 million visitors was attributable to the presence of maritime cultural heritage (2010, p. 22, Baxter et al. 2011, p. 156). Both the Scottish Government and ABP Marine Environmental Research LTD argue that the relatively narrow scope of the dataset means that the true economic contribution of maritime cultural heritage tourism to Scotland is likely underestimated. Furthermore, both studies reiterate that most maritime cultural heritage tourism sites in Scotland are unmanaged and free-to-visit, and those that are managed tend not to consistently record visitor numbers. ABP Marine Environmental Research LTD acknowledge that free-to-access sites may be visited more frequently than actively monitored and fee-entry sites and go on to postulate that unmonitored sites may have a potentially larger economic and sociocultural impact on Scotland's population and the sites' visitors.

Researchers in the United States have also begun studying the economic value of maritime cultural heritage sites. While many reports focus on the creation and delivery of interpretation methods (Jameson and Scott-Ireton 2007b, Scott-Ireton 2014), others offer a snapshot of the country's burgeoning maritime cultural heritage tourism industry. In the case of Florida, more than $3.7 billion (USD) was spent by visitors at cultural heritage locations – including museums, parks, and archaeological sites – during the year 2000 (Scott-Ireton 2007, p. 20). A promising figure, even if it does not differentiate between terrestrial and maritime cultural heritage sites. In Australia, only four published studies discuss the quantification of maritime cultural heritage tourism's economic value, all to varying degrees of success. The first is a 1998 paper by Shirley Strachan examining shipwrecks in Victoria (Strachan 1998); the second is a 1999 paper by Daniel O'Hare evaluating the economic impact of Noosa, Queensland, as a tourism destination (O'Hare 1999); the third is a 2005 heritage tourism strategy report from Western Australia examining three heritage towns (Hughes et al. 2005); the fourth is a 2007 Heritage Victoria regulatory impact statement reviewing the state's shipwrecks (Kilpatrick 2007).

Strachan's 1998 paper served as a strategic action plan for the Victorian Maritime Heritage Unit. It argued that maritime cultural heritage is an important non-renewable resource vital to the state and provided suggestions on how the heritage unit should function for the following seven years. The paper did not discuss any potential sociocultural value derived from shipwreck sites – though Strachan *did* identify a positive change in the general public's attitude towards protecting such sites between the 1960s/1970s and late 1990s – but rather emphasised their non-renewability in terms of economic value (Strachan 1998). Unfortunately,

data on the economic impact Victorian shipwreck sites have on local communities is noticeably absent. Strachan does note that, overall, diving contributes $20 million annually to the state's economy, and shipwrecks are a large (albeit unquantified) contributor to this number. She goes on to remark that shipwreck tourism plays a significant role in the state's economic and competitive strengths, but refrains from numerically estimating the value of any such role (Strachan 1998, p. 25). Strachan also remarks on the systematic downsizing of heritage business units across the country due to economic rationalisation, further expounding the importance of determining economic value for the posterity of maritime cultural heritage (Strachan 1998, p. 13). In fact, the downsizing of heritage business units has resulted in drastic negative impacts for the maritime cultural heritage industry across the country. As of 2020, the majority of Australian states and territories have one – occasionally two, but rarely more – maritime cultural heritage officers to oversee the conservation, protection, and promotion of maritime cultural heritage in their respective jurisdictions (jurisdictions that may contain thousands of sites). It is therefore unsurprising that Strachan echoes the call of international contemporaries when she highlights the necessity of promoting maritime cultural heritage tourism to the state.

Conversely, O'Hare's study in 1999 was almost narrowly focused on assessing the 'success' of Noosa, a coastal town, as a tourism destination. Coastal towns are unique spaces where the maritime and terrestrial converge, encapsulating an environment intrinsically linked to both landscapes (Straiton 2015). O'Hare argued that only a handful of coastal towns in Australia capitalise on their unique maritime cultural heritage for tourism purposes, forfeiting a potential boost to their local economies (2001, p. 97). The few towns O'Hare names that *have* actively capitalised on their maritime cultural heritage include Goolwa and Robe (South Australia), Queenscliff and Port Fairy (Victoria), Broome and Fremantle (Western Australia), and Noosa (Queensland). O'Hare further claims that some communities all too readily 'wash [away]' maritime cultural heritage for modern developments like Anzac Park in Cairns (Queensland) (O'Hare 2001, p. 97). For towns like Noosa, promoting maritime cultural heritage by delivering tourism experiences based on local sites has translated into significant economic value (O'Hare 1997, 1998, 1999, 2001). O'Hare argued that Noosa's success is due to an active and involved local community that has effectively influenced urban planning and design in a way that accentuates the local maritime cultural heritage, leading to a more engaging and rewarding experience for visitors (O'Hare 2001). Furthermore, he claims Australians have a naturally strong emotional connection with oceanic environments, and that this attachment provides a unified landscape linking past and present (O'Hare 2001, p. 105). Unfortunately, O'Hare does not quantify the economic value of the town's maritime cultural heritage, instead broadly arguing for the town's 'success' through a combination of observational induction and

qualitative analysis. Nevertheless, economic information can be viewed through Tourism Noosa's website, which reports more than 2.48 million overnight visitors and day trippers arrived in Noosa during the 2018–2019 fiscal year, and that they collectively spent $1.1 billion (Tourism Noosa 2019, p. 5). This once again suggests that maritime cultural heritage represents a potentially significant but currently undefined economic return for many Australian communities.

The 2007 regulatory impact statement – also from Victoria – builds on Strachan's work. It claims that recreational diving activities contribute between $50–$70 million annually to tourism-related businesses across the state (Kilpatrick 2007, p. 6), though this figure encompasses *all* recreational diving and not just diving related to maritime cultural heritage tourism. Unfortunately, like Strachan's study, the strategy fails to identify which portion of the estimated visitor expenditure is directly related to maritime cultural heritage. Furthermore, though the figure is outwardly impressive, there are significant methodological issues with its origin. First, it is based on little more than a 'best estimate' derived solely from anecdotal evidence (Kilpatrick 2007, p. 6) collated for a private report prepared by Sinclair Knight Merz Pty Ltd in 2004, a company unwilling to share its data with other researchers. The obfuscation of the initial report and its dataset prevents scrutiny, making both fundamentally unreliable sources. Second, what Kilpatrick has quoted (with permission) from the initial report appears rife with assumptions. For example, the report estimates between 20,000 and 30,000 divers visit Port Phillip Bay each year, and assumes that 'up to 25% or more' of these are international divers (Kilpatrick 2007, p. 6). Without access to the initial report, it is impossible to verify the methodology behind such assumptions. Kilpatrick argues that, while shipwrecks undeniably represent major diving attractions in Victoria, it is unlikely that the total sum of $50–$70 million visitor expenditure is attributable to maritime cultural heritage tourism alone (Kilpatrick 2007).

Finally, the 2005 heritage tourism survey from Western Australia sought to measure the economic value of cultural heritage tourism to three of the state's cities (Fremantle, Albany, and New Norcia) using a similar but more quantifiable approach than O'Hare. All three cities were selected due to the presence of significant cultural heritage material, and both Fremantle and Albany are coastal cities with substantial colonial maritime cultural histories. New Norcia, conversely, is further inland and cannot be classified as a maritime cultural heritage landscape or city (Hughes et al. 2005, p. i). By surveying visitors to Fremantle and Albany, but only using secondary data for New Norcia[9], the researchers were able to determine that cultural heritage tourism contributed $27.5 million annually to Fremantle's local economy and $81.2 million to

[9] This data will not be discussed.

Albany's (Hughes et al. 2005, pp. i, 10–19). Rather than rely on qualitative observation like O'Hare, the researchers used a framework akin to the one Carlsen (2015) would later deploy in his study of built heritage in Adelaide, wherein the calculation for economic value requires an attribution factor based on how important a visitor perceives the area's cultural heritage to be.

Consequently, the researchers also gathered significant data on *why* people were visiting these cities. In Fremantle, 36.9% of respondents visited the city for its historic precinct, with 43.6% of all surveyed visitors rating heritage as very or extremely important (Hughes et al. 2005, p. 16). In Albany, a majority of visitors experienced the area's beaches (84.6%), as well as one or more cultural heritage location (81.5%) (Hughes et al. 2005, p. 12), despite only 31.1% of Albany's visitors identifying the city's cultural heritage as very or extremely important (Hughes et al. 2005, p. 12). While the data for both Fremantle and Albany highlights how important maritime cultural heritage is to each city's respective tourism industries, the 2005 study emphasised just how underestimated the economic and sociocultural significance of maritime cultural heritage tourism is, both to the visitors intentionally engaging with it, and to the industry purportedly managing it. Because of this, Hughes, Carlsen, and Wood argue that the attribution factor for each city is likely *higher* than what visitor responses indicated, particularly when the majority of people visited maritime cultural heritage locations despite doing so not being the primary purpose of their trip. An example of this phenomenon is the Fremantle markets. Located inside heritage buildings within the city's heritage district, the markets themselves are a major draw card for visitors, often forming the apex of a visitor's trip to the city. However, each visitor to the markets necessarily experiences the heritage that literally encompasses them in that moment (Hughes et al. 2005, p. 17). Ultimately, for Hughes, Carlsen and Wood, it was important to consider visitor expenditure catalysed by both direct and indirect experiences of cultural heritage tourism when determining their attribution factor. Notably, the attribution factor identifies how important cultural heritage is to the visitor and their tourism experience. By expanding their method, they determined an attribution factor of 73.01% for Fremantle and 62.83% for Albany (Hughes et al. 2005, p. 13,19), again emphasising just how overlooked maritime cultural heritage tourism is in many regions.

While each of the publications discussed here directly or indirectly touched on the economic impact of the country's maritime cultural heritage tourism industry, they all demonstrate the need for further research. The use of different methodological approaches makes comparing studies difficult at best, and practically impossible in many instances. In the case of the two Victorian reports by Strachan and Kilpatrick, for example, both provide economic valuations in the millions of dollars, but the lack of scientifically collected data or analysis across both

raises concerns about the validity and comparability of results. Combined with a lack of discussion surrounding the recreational diving industry in Victoria, much of the alleged visitor expenditure claimed by both studies could be attributed to nature-based tourism rather than cultural heritage tourism. Other studies, like O'Hare's, may suggest other, qualitative methods for assessing economic value, but these are inherently subjective and problematic to some degree, especially when attempting to compare results across sites. Finally, while Hughes, Carlsen, and Wood's 2005 study offers the most scientifically sound economic data, the study itself is more concerned with the terrestrial elements of the cities rather than their foreshore or maritime features, leaving maritime cultural heritage ambiguously defined and its contribution difficult to distinguish.

2.2.3 Overpricing Economic Value

Despite its undeniable significance, hyper focusing on economic value is inherently problematic and fraught with risks. To begin with, the economic value of any maritime cultural heritage site is exponentially affected by external factors, including physical and environmental conditions, accessibility, politics, public perceptions, and social acceptability (Thomas and Langlitz 2019), which often makes economic evaluations ungeneralisable over time. Driving up economic value combined with improper management (by, for example, augmenting maritime cultural heritage material with resorts and other tourism-heavy amenities) can also lead to severe conservation problems due to increased visitation. This is evidenced at notable World Cultural Heritage Tourism sites where some physical features are deteriorating due to mass tourism (Caust 2018). Indeed, so strong and pervasive is the perceived connection between financial success and economic value that even the SATC measures the state's tourism industry's viability by dollar value, rather than by visitor numbers or the quality of visitor experience (South Australian Tourism Commission (SATC) 2020b). In fact, many practitioners in the tourism industry argue that it matters little if they receive fewer visitors who spend more or more visitors who spend less: the result, they claim, is equitable. Ironically, this sentiment is sometimes at odds with itself (for example, fewer visitors who spend larger sums of money will result in less jobs for locals and a less diverse spend within the community). Of course, the most concerning consequence of a hyper focus on economic value is the incidental deprioritising of sociocultural value.

The further raw data gets from lived experience, the less likely it is to represent it. Relying on purely quantitative assessment methods will often obfuscate the reality of an individual's subjective experience, potentially devaluing its significance. While finding ways to calculate the 'value' of cultural heritage is something many scholars in various disciplines are

investigating (Phiddian et al. 2017, Meyrick et al. 2018, Comer and Willems 2019b), too many of these investigations fallaciously elevate monetary worth to an absolute quality (Funari 2005, p. 125) when, in fact, the 'dollar value' of any particular site says nothing about the psychological or anthropological impact of the experience it provides. Numerical datafication provides figures on how much people are willing to spend on a cultural feature or attraction, but it does not reveal how an experience may influence a visitor's long-term behaviour or worldview, which may lead to more broadly desirable outcomes than a small injection of cash into a local economy. Indeed, many scholars agree that relying on this one-sided status quo is an inefficient practise (Funari 2005, Meyrick et al. 2018, Comer and Willems 2019b, Court et al. 2019). Some have even argued that 'value' can be drawn from 'that which is worthy of esteem for its own sake', such as the Pyramids of Giza, or a Rembrandt (Funari 2005, p. 125). Of course, such an assertion results in its own sense of contradictory irony, as it implies a materialistic basis for any declaration of sociocultural value. If indeed this is the case, and sociocultural value is a function of the materialistic 'elite' (for example, high-style buildings, art works, literature, and other 'products' that have found a commercial position within the marketplace), then is the materialistically 'humble' of comparatively little value? Such paradoxes have led some scholars to argue that something cannot attain a market price and simultaneously have worth for its own sake (Funari 2005, p. 126).

Combined with the pressure of slapping a dollar value on almost everything in a *laissez-faire* market, the result of conundrums like these on scientific inquiry is clear. For example, in his 2001 study, Mules *did* partially investigate aspects of sociocultural value related to cultural heritage tourism: specifically, his researchers asked respondents what their preferences were relating to information availability, entertainment, authenticity, and education during their visit to a cultural heritage site. Mules also examined visitors' 'satisfaction' levels regarding site signage and available information. Mules concluded that the overall scores of visitor satisfaction between the three sites were similar, though not statistically insignificant (2001, pp. 72–73). However, he did not discuss any of the potential social benefits this data may have represented either for the visitors or the local communities in question, nor did he elaborate on the statistical tests he used to reach his conclusions. This trend is not isolated to South Australia or even Australia itself. Many cultural heritage tourism locations around the world, including museums and other *in situ* sites commission reports that emphasise (directly or indirectly) their economic value at the expense of studying their sociocultural value. In the case of several maritime-based museums in the UK, annual reports routinely fail to discuss visitor satisfaction levels with attractions, individual exhibitions, or, indeed, any other possible or realised social benefits from engaging with the sites (National Maritime Museum 2017, Mary Rose Trust 2018, SS Great Britain Trust 2018, Belfast Harbour 2019). Similarly, while Beattie-

Edwards does provide *some* initial commentary on the potential social impacts of *Coronation* – including a discussion on increased diver awareness, education, and appreciation of *Coronation* – he once again returns to the economic consequences of this value: a happy diver seeking education and experience is more likely to visit other local cultural heritage locations, as well as spend more money, during their trip.

In fact, few publicly available reports explore tourism or its sociocultural impact, let alone from the perspective of local residents (Lee 2019). It should also be noted that, even when sociocultural value *is* explored, it is typically filtered through an investigation of economic value, particularly in relation to how likely people are to return and how much of their money is spent on cultural heritage assets (Cegielski et al. 2000, Mules 2001, Carlsen 2015). This constitutes a severe lack of engagement that further reinforces the emphasis on economic value as the most important measure of success. Arguably, one solution may be for academia and anthropologists who are generally more interested in sociocultural value to spearhead these types of studies. Unfortunately, there is a deep reluctance from many within anthropological disciplines – including archaeology – to include economic value in their work (Burtenshaw 2014, pp. 48–49). This is perhaps due to a pervasive disinclination to breach the disciplinary divide (see Section 2.5 for further discussion), with some archaeologists typifying economics as ‘dismal science’ concerned only with monetary gain (Carman 2005). This creates a complex situation for the industry when trying to develop a sustainable future for many sites, as there is limited knowledge regarding precisely who the maritime cultural heritage visitor actually is, why they go the places they go, and how those places affect their perception and behaviour.

2.3 What is Sociocultural Value?

As limited as the discourse is surrounding the economic value of maritime cultural heritage tourism, it is still a magnitude more comprehensive than the discourse surrounding its sociocultural value. This does not mean that scholars have not previously discussed the sociocultural value of maritime cultural heritage sites. Indeed, the sociocultural value of cultural heritage material is a topic frequented within archaeology, tourism, psychology, social sciences, and other sub-disciplines, and academics often describe the personal adoption of historic or communal identities as 'beneficial' on an individual level (Pearson and Sullivan 1995, Australian ICOMOS 2000, Harrington 2004, Court et al. 2019). Yet, studies regarding the sociocultural value of material cultural heritage – and further, the act of connecting with it through 'tourism' – are often fractious, riddled with ambiguous, *ad hoc* methodologies and highly subjective interpretations. Though it is important to appreciate individuality when it comes to independently functioning organisms like humans, developing some sort of investigative standard for determining the sociocultural value of maritime cultural heritage is as vital to the industry as verifiable economic data. This section therefore explores the sociocultural impact of maritime cultural heritage tourism. In particular, it examines some of the prevalent frameworks concerned with determining sociocultural value and how those frameworks have previously been deployed. It argues for the adoption of a semi-standardisable and interdisciplinary approach to assessing sociocultural value to help meet the disparate interests of archaeological practitioners and tourism operators.

2.3.1 The Importance of Measuring Sociocultural Value

Generally speaking, research suggests that people are eager to validate the belief that culture *matters* (Meyrick et al. 2018, p. 108). Within the context of cultural heritage tourism, several recent studies from across the globe follow this trend by attempting, in part, to develop a sociocultural 'profile' of visitors to particular cultural heritage sites. In Herculaneum, Italy, for example, Court, D'Andrea, Del Duca, Pesaresi, and Thompson (2019) conducted a visitor survey in 2015 designed to explore respondents' pre- and post-visitation behavioural motivations. Court et al. argued that a visitor's emotional connection to a site should be measured and monitored as practicably as possible, as it is these psychological bonds that help people identify with the past and relate to the site in the present (2019). They go on to echo the sentiments of many archaeological practitioners who claim that engaging people in their own, personal heritage deepens their connection to cultural heritage material, which potentially leads to the proliferation of pro-heritage and pro-environmental behaviour: 'Greater

engagement and participation can lead to visitors whose very presence contributes [to the site's] conservation objectives' (Court et al. 2019, p. 28). In fact, the qualitive nature of sociocultural value is often referred to as 'intrinsic' or 'inherent', and scholars regularly argue that it should be analysed and considered alongside any form of economic value, despite being typically absent from measurement indices (Meyrick et al. 2018, p. xii). The problem, then, is not a lack of willpower on behalf of archaeological practitioners or tourism operators but is, perhaps, of a more pragmatic nature; in short, measuring sociocultural value is *hard*.

Nevertheless, in an era where economic rationalisation increasingly dictates the course of resource allocation, expounding sociocultural value is more important than ever, as is overcoming the complex intricacies and subjective pitfalls of determining what, exactly, sociocultural value *is*. Meyrick, Phiddian, and Barnett identify six major difficulties researchers often face in this regard: 1) an inadequate understanding of how humans experience culture; 2) measuring the long-term effects of culture on individuals; 3) a reliance on assessment processes using language that lacks specific meaning; 4) the perception that visitors are customers and not members of a public cohort; 5) the perception that cultural organisations are mechanisms for enabling policy outcomes; and 6) 'cultural' value is too often synonymous with 'monetary' value (2018, pp. xiv–xv). While economic data certainly plays a valid role in determining a site's overall value, Meyrick et al. argue that the normalised incorporation of phenomenology is infinitely desirable wherever culture is concerned. It is, they imply, the only effective way to produce holistic assessments of value, as cultural heritage without meaning ultimately has *no* tangible value beyond the tragically commercial (Meyrick et al. 2018, p. xii).

It is this phenomenologically sensitive interpretation of 'meaning' that seems to cause friction in the cultural heritage tourism sphere, however. What exactly is 'meaning', and is one individual's sense of a site's meaning any more or less important than any other? Does meaning even really exist, and moreover, how can it be measured in a way that minimises subjectivity, closing gaps often manipulated to dismiss such data? Some scholars argue that meaning is created through the shared stories and events of lived experiences, but stories without a numerically-backed context can be unrepresentative in the same way that numbers without a narratively-backed context can be meaningless (Meyrick et al. 2018, pp. 25, 31, 35). The argument that culture and – by extension – cultural heritage has a value beyond the numerical is fundamental: after all, if the only true 'value' of a cultural heritage site was economical, then visitation numbers would fluctuate on far fewer and mostly practical factors (such as accessibility). If individual sociocultural connections do not exist, then might we expect broadly cultural material like books, movies, music, festivals, and art to be of roughly equal economic value (Phiddian et al. 2017, Clayton 2018, Meyrick et al. 2018, p. 9)? Clearly,

they are not, and so other factors must be in play. In the cultural heritage context, this means sites must have phenomenological value beyond the economic.

Of course, 'value' is also a term increasingly permeating the discourse surrounding cultural assets, from arts and movies to history and heritage (Jameson and Scott-Ireton 2007a, Meyrick et al. 2018), and is used interchangeably with 'quality', 'interest', and 'attribute' (Funari 2005, p. 215, Jameson and Scott-Ireton 2007a, p. 1). Scholars and management groups have, on more than one occasion, considered cultural heritage material valuable despite it having no discernible economic value (Carman 2005, Funari 2005, p. 126). Indeed, it is illegal to sell, buy, or trade cultural heritage material obtained through illegal, non-scientific excavations, regardless of the material's supposed monetary worth (Taşdelen 2016, Stevenson 2017). Similarly, archaeological examinations of 'value' frequently involve exploring the potential sociocultural or scientific implications of a site, rather than its supposed economic impact (Grenville and Ritchie 2005, p. 211). Archaeologists and public interest groups have even described the presence of economists and economic concerns 'intrusive' in the past (Throsby 2001, p. 6), which has encouraged scholars to pursue the idea that 'not everything that counts can be counted'; in other words, the intrinsic, scientific, or sociocultural value of heritage material cannot and should not be reduced to its (potential) economic or materialistic worth (Bell and Werner 2004, p. xi, Scott-Ireton 2007, p. 19, Meyrick et al. 2018, p. 128).

Despite the ubiquity of this trend throughout the arts, humanities, social science, and the general public, many groups (including governments) continue to treat economic value *as* sociocultural value. This results in the formulation of cultural heritage management decisions based solely on 'hard' economic data, forcing complex issues of social engagement into narrow methodological frameworks that lead to potentially damaging results for cultural heritage material and local communities. This can be seen is multiple cases, including the previously discussed heritage sites in South Australia such as Shed 26 in Port Adelaide, the Victor Harbor causeway, Waite Gatehouse and other sites across the country (Oaten 2019, Lesh and Myers 2021, Kelsall 2021). The need for 'hard', purely quantitative data catalyses the never-ending pursuit of the 'objectively' measurable, which, as a rule, tends to strip numbers of social context and the long-term changeability they sometimes imply (Meyrick et al. 2018, p. xii). The call to 'stop measuring and judge carefully' is clear and logically sound, particularly in the wake of economic rationalisation, which readily spurns the lessons of phenomenology in favour of easily digestible, but often decontextualised, economic value (Meyrick et al. 2018, pp. xxix, 3). In the 21st Century, a division predicated on 'one-or-the-other' (economic or sociocultural) is intellectually dishonest and hardly acceptable, so why do the collective disciplines that make up the cultural heritage tourism sphere seem so reticent to

adapt either way? Once again, the answer is likely the fact that measuring sociocultural value is, quite simply, a difficult task. In fact, it is a contentious, complex, and highly subjective one that has seen the use of terminology as vague as 'warm fuzzy feelings' to describe the nature of an individual's connection to cultural heritage (Grenville and Ritchie 2005, p. 214, Jameson 2007, p. 9, Meyrick et al. 2018, p. xxvii). The development of a semi-standardisable approach to determining the sociocultural value of maritime cultural heritage sites would necessarily have to contend with this ambiguity, and the only functional way to do so is to begin with models borrowed from psychology and social science (something that research in nature-based tourism has already begun doing).

2.3.2 Sense of Place Versus Place Attachment

When scholars discuss the sociocultural value of cultural heritage, the term 'sense of place' occurs frequently in the literature, but is it definitionally sound enough to build an investigative framework on? While the term has become a major area of research – especially in Australia (Harrison 2011, p. 79) – it is often used interchangeably to describe (for example): the mechanisms behind people's emotional connections to a physical location, their 'rootedness', sense of belonging, stability of communal relationships, and individual identity formation (Radmilli 2011, pp. 173–174). As a concept, sense of place therefore refers to the myriad possible explanations as to why a place is special to an individual. This makes it incongruent with 'a single meaningful and useful definition' (Baxter et al. 2011, Brakman 2011, p. 121), though some authors feel the term's connotations are simply 'common sense!' (Hopley and Mahony 2011, p. 34). While it is difficult to justify the adoption of a comprehensive taxonomy for the term, it is clear that a significant number of scholars consider history and heritage essential components (Brakman 2011, p. 128, Radmilli 2011, p. 184), suggesting that detailed explorations of sense of place – or phenomena like it – are ultimately warranted (Brakman 2011, p. 121).

Sense of place's definitional opacity has not prevented scholars from using it to demonstrate the sociocultural value of some nature-based and cultural heritage tourism sites. In fact, 'heritage is often seen as something which imbues a location with a 'sense of identity' (Brown 2011, p. 157), making 'sense of place' a semantically integral part of many archaeological and heritage significance assessments. In Australia, cultural heritage managers are increasingly using the investigative umbrella provided by sense of place to help delineate the sociocultural value of the sites they work with, a trend heavily influenced by the Burra Charter (Harrison 2011, p. 80). The Burra Charter was revised in 1999 to incorporate concepts such as sense of place in response to the prevailing sentiment that earlier editions focused unfairly on the

physical and architectural significance of sites. The revisions broadened the charter's 'understanding of what is cultural significance by recognising that significance may lie in more than just the fabric of a place' (Australian ICOMOS 2000, p. 22). Despite never explicitly mentioning the term 'sense of place', the charter is now considered one of the major publications that pushed for the consideration of an individual's connection to a site, whether in Australia or overseas (Schofield and Szymanski 2011a, Lesh 2020). Accordingly, individuals can experience a sense of place regarding any number of different locations – including sporting venues, heritage sites, and even locations where they believe they can connect with their deceased loved ones (Harrison 2011, pp. 87–89, Wood 2011) – through which they may develop a distinct experience of 'localness' (Lippard 1987, Harrison 2011). Similarly, Hopley and Mahony examine how sense of place might be deployed in tourism. They discuss an 'area's unique feel and appearance' as marketable attributes (or, marketable 'sense of place'), though they admit the term broadly encompasses a range of factors, such as landscape, wildlife, heritage, people, sights, sounds, tastes, and memories (Hopley and Mahony 2011, p. 33).

So, it seems what constitutes an 'area's unique feel and appearance' – even an experience of 'localness' – is up for some serious phenomenological debate. Firth, in fact, argues that 'a sense of place does not emerge from places mystically, or like some strange radiation', but rather from individuals themselves when they either visit a cultural heritage site or occupy it on a habitual basis (2011, p. 146). If this is the case, then the 'meaning' of any given site to any particular individual is, to some degree, a necessarily subjective concept, born of internalised mental processes and perceptions. Shifting the originating factor of sense of place from site to visitor solves some teleological problems. It can, for example, explain why some sites like the ocean itself elicit a sense of place in some individuals, despite being habitually *uninhabited* and the experience having no specific origination in heritage material (Firth 2011, p. 147). Indeed, individuals seem to be able to develop a sense of place with maritime cultural heritage sites through abstract interactions – which may be in part due to people's innate connections with the marine environment and the 'mystic' they represent – like experiencing a site's geophysical imagery or viewing computer reconstructions, photos, and models of cultural heritage material (Firth 2011, p. 147). Once again, however, the concept's ambiguity damages its credibility, and some scholars contend that abstract interactions cannot possibly result in the development of a sense of place, despite visual, auditory, or tactile aids being the only way some individuals can connect with heritage material (Firth 2011, p. 147).

In fact, maritime cultural heritage, which is often physically inaccessible to the general public, raises significant problems for any conceptualisation of sense of place that relies on an

individual's physical presence on-site (Firth 2002, 2011, pp. 141–145). If abstract interactions are out of bounds for forming sense of place experiences, how can we possibly justify describing the average Australian as naturally connected to the country's maritime history? Or society's innate fascination and connection with the maritime environment? Firth argues that actively helping individuals explore sense of place through multitudinous methods – particularly regarding sites that are generally inaccessible, like maritime ones – might assist in understanding how they develop a sense of place at all (Firth 2011, p. 144). He further differentiates between 'sense of place' and 'sense of event', a subtle variation in which an individual develops a connection to a site or heritage material by connecting to an *event* that has either occurred on-site or is somehow related to the material itself (Firth 2011, p. 153). People may develop a 'sense of place' *from* a 'sense of event' however, Firth's distinction remains; a sense of event is typically embedded in the landscape, but a sense of place is not, according to him, an intrinsic characteristic of the physical place itself. Rather, it is a characteristic of the visitor, their perceptions and interpretations, and thus, a component of their identity (Firth 2011, p. 154), a sentiment shared by interdisciplinary scholars: 'to perceive the environment is to co-perceive oneself' (Gibson 1986, p. 141, Firth 2011, p. 147).

Nevertheless, it is worth discussing some of academia's attempts to clarify 'sense of place' as an actionable concept. Orange (2011), for example, collected data through ethnographic surveys asking respondents in Cornwall what the term 'sense of place' meant to them (if anything) and whether or not a particular nearby heritage site held any specific importance to them. From the 284 surveys returned, Orange discovered that responses to the question, 'what does the term "sense of place" mean to you, if anything?', fell into one of five categories: 'place', 'belonging', 'cognition', 'nothing', and 'other' (2011, pp. 107–111). When asked, 'does [the case study area] have a "sense of place"?', 87% of respondents said 'yes', 11% said 'no', and the remaining 2% didn't know. Orange notes that, of those who responded 'no', 58% still defined 'sense of place' according to the same categories as those who responded 'yes', but the remaining 42% felt the term itself meant nothing (2011, pp. 109–111). Orange argues that the public's general comprehension of the term 'sense of place' is rooted in four phenomenological experiences: the intrinsic character and atmosphere of a site, the feeling or sense of belonging to a site or its local communities, an emotional response, and a simple knowledge or understanding of a site (discounting, of course, those for whom the term is 'meaningless jargon') (Orange 2011, p. 115). Despite her attempts to pinpoint sense of place's origination factors, Orange's work seems to support the idea that there is no singular definition or set of objective frameworks from which sense of place can be examined (Orange 2011, p. 115). At the very least, however, Orange demonstrates the need for site assessors to engage with as many individuals who claim a connection to a particular site as possible, and other

scholars agree. Townend and Whittaker, for instance, question the value of 'brief' surveys, inferring that they are incapable of accurately capturing the true reasons behind people's connections. Instead, they propose the adoption of a more in-depth, qualitative approach to community engagement (Orange 2011, Townend and Whittaker 2011, p. 70).

Regardless of how we define 'sense of place' or how the data is ultimately collected, the consensus is that all landscapes are predominantly physical *and* social constructs, a fact some scholars argue is far more definitionally important than any mechanical taxonomy (Firth 2011, Orange 2011, Schofield and Szymanski 2011b, Townend and Whittaker 2011, Verdu 2011). A cultural heritage site in its totality, they suggest, can only exist in relation to those who engage with it, essentially creating a kind of holistic identity that communities and individuals draw from and thus subjectify its sociocultural value (Townend and Whittaker 2011, pp. 65, 68, Verdu 2011, p. 53). This gives a site and its contextual cultural landscape meaning insofar as we place value on the human need to form identity, which Verdu claims is analogous to the phenomenon called 'sense of place' (2011, p. 63). There are caveats to this definition, of course. The existence of actual memories concerning a site, for example, tend to correlate with a stronger sense of place within an individual (Schofield and Szymanski 2011a, pp. 3–4). Still, the message is clear; the *way* in which cultural heritage sites matter is arguably more significant – perhaps even vitally so – than *why* they matter (Townend and Whittaker 2011:69).

If sense of place is akin to or, at the very least, a component of identity formation, it clearly needs to adapt stronger underpinning frameworks if it is to provide a useful snapshot of the sociocultural value of cultural heritage sites. Fortunately, there are analogues in interdisciplinary spaces that previous research has already drawn from. Place attachment theory, for example, is a comparable concept common to psychology and social science. First conceptualised by phenomenological scholars, place attachment theory refers to the study of people's unique emotional bonds to physical locations, and, importantly, attempts to distinguish between 'abstract space and meaningful place' (Tuan 1974, 1975, 1977, Relph 1976, Low and Altman 1992, Lewicka 2011, He 2013). This is increasingly important in today's globalised world, in which a simple 'place' can be defined more broadly than ever before with the advent of the internet, digital media, and virtual reality (Tuan 1974, 1975, 1977, Relph 1976, Reinhard 2018). Unsurprisingly, the theory permeates studies in multiple disciplines, including anthropology (e.g. Lewicka 2008), architecture, family and consumer studies, folklore, gerontology (e.g. Rubinstein and Parmelee 1992), human geography, immigration (e.g. Ng 1998), marketing, mobility (e.g. Giuliani et al. 2003), psychology (e.g. Brown and Perkins 1992), social ecology, sociology, tourism and leisure studies (e.g. He 2013), and urban planning (Brown and Perkins 1992, Scannell and Gifford 2010a, Lewicka 2011, He 2013).

Place attachment's key theoretical advantages over sense of place includes its already semi-formalised, interdisciplinary structure and its ability to subsume the phenomenologically-oriented 'sense of place' within a broader, more holistic framework for assessing sociocultural value (the two terms even stem from the same phenomenological studies [Tuan 1974, 1975, 1977]).

Nature-based tourism scholars have, in the past, used variations of place attachment theory to explore the relationship between identity formation and pro-environmental behaviours (Oskamp 2002, Gosling and Williams 2010, Halpenny 2010, Scannell and Gifford 2010b, 2010a). Though sparked by growing environmental concerns and the idea that many environmental problems are rooted in human behaviour, these studies have produced seemingly positive examples of place attachment theory in academic action, revealing that higher levels of attachment are generally associated with more responsible environmental behaviour. However, due to place attachment's interdisciplinary nature, it is difficult to draw definitive conclusions about the theory's broad applicability. Indeed, explorations of place attachment tend to differ almost as wildly as sense of place between disciplines, with different approaches and results sometimes muddying the model's comparability (Jörgensen and Stedman 2001, Kyle et al. 2004d, Halpenny 2010, Scannell and Gifford 2010a, Ramkissoon et al. 2013b). Unsurprisingly, each discipline that incorporates place attachment does so differently, with researchers using a combination of various place-related concepts, such as 'place attachment, place identity, rootedness, sense of place, place dependence, and place satisfaction' to narrow its definitional scope (Lewicka 2011, p. 208). Despite this, many scholars agree that place attachment is vital for identity formation and a necessary component of anthropology (Low and Altman 1992, Twigger-Ross and Uzzell 1996, Mazumdar et al. 2000, Hidalgo and Hernandez 2001, Jörgensen and Stedman 2001, Stedman 2002, Stewart et al. 2004, Lewicka 2005, Su and Wall 2010). Place attachment theory, then, represents a considerable step forward for archaeology and the tourism industry's hyper-reliance on the indefinable 'sense of place'.

To help alleviate the problem, some scholars have attempted to comprehensively formalise place attachment theory. Scannell and Gifford, for example, have proposed the person, process, and place framework with this goal in mind (2010b). The person, process, and place framework assumes that the interdisciplinary dimensions of place attachment may sometimes overlap while at other times remaining useful for only a discrete discipline (Scannell and Gifford 2010b, p. 7). To ensure a model of investigation that appreciates this fact, Scannell and Gifford's person, process, and place framework effectively compartmentalises each major category of inquiry within the theory, allowing researchers to position results while still

adhering to the larger model. The person, process, and place framework organises concepts according to the three elements Scannell and Gifford argue are needed for place attachment to form (Figure 2-2). The person element relates to the individual or the collectives determining a place's 'meaning' (i.e., those elements most closely associated with 'sense of place'). The process element includes affective, cognitive, and behavioural components related to observable manifestations of place attachment. Finally, the place element highlights the *purpose* of the attachment, including its specificity, spatial reality, and the prominence of physical and social components (Scannell and Gifford 2010b).

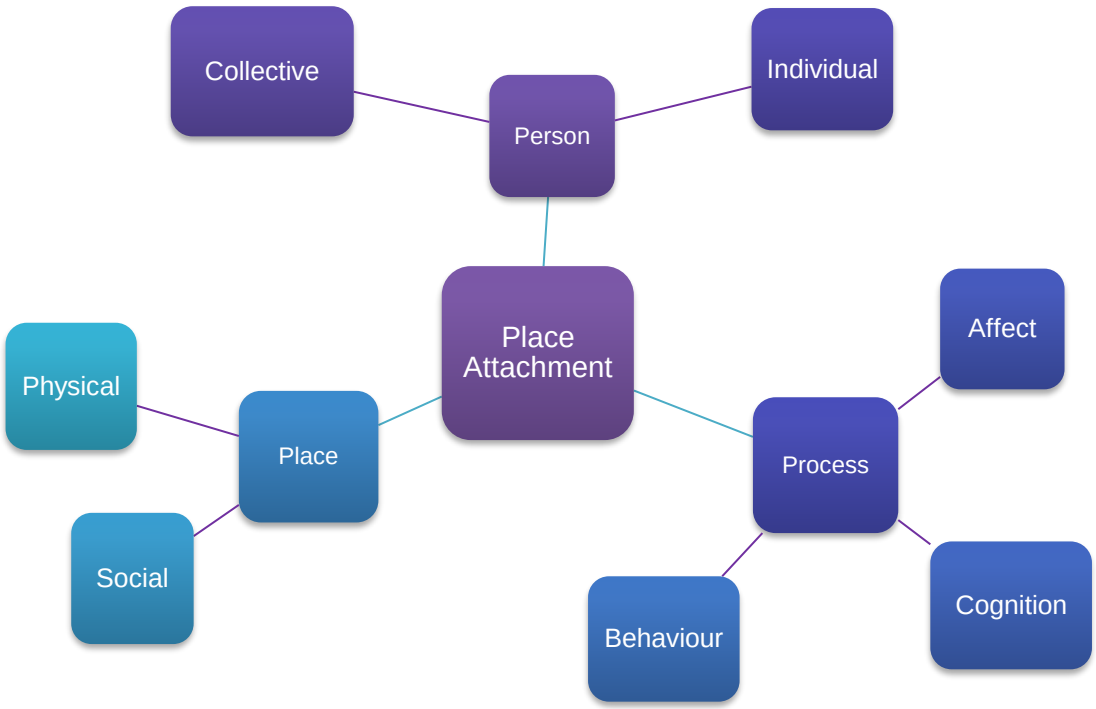

Figure 2-2: Tripartite framework of place attachment. Image after Scannell and Gifford 2010.

Variations of place attachment theory have seen use in the Australian nature-based and cultural tourism industry. A recent study conducted in an Australian national park, for example, sought to explore the relationship between site attachment and pro-environmental behaviour. Using a four dimensional structure, researchers surveyed 452 visitors to the Dandenong Ranges National Park from June to September 2011 (Ramkissoon et al. 2013b). The results of the study suggest that different attachment dimensions have different impacts on pro-environmental behaviour and that pro-environmental behaviour often falls into two categories: low-effort and high-effort. In addition, the researchers discovered that the likelihood of visitors undertaking one type of behaviour often influenced their perception of others (Ramkissoon et al. 2013b). Similarly, Li He compared one 'man-made' and one 'natural' tourism location in

Melbourne, Victoria (He 2013) using an expanded version of place attachment theory. Li He also adapted the model to examine its interaction with tourism-relevant on-site behaviour in order to argue for improved destination management (He 2013, p. 8). She found that people reported a neutral level of attachment to both locations and that were no significant differences between the strength of attachment to either. However, higher attachment levels were found to be associated with more 'positive' behavioural intentions, such as a willingness to spend more money and an enhanced consideration for the environment (He 2013). Although both studies were hyper focused, the results suggest that place attachment theory can contribute much to the missing sociocultural datasets for Australia's maritime cultural heritage tourism sites.

2.3.3 Lost Sociocultural Opportunities

On the rare occasion that the sociocultural value of cultural heritage material is studied, Australian archaeologists and tourism operators rely on 'sense of place' to determine the sociocultural value, even if its inclusion is sometimes ambiguous and *ad hoc*. This does not mean, however, that the way in which the sociocultural value is determined is comparable across sites or even able to produce a particularly useful contextualisation of sites within broader frameworks. Nevertheless, some of Australia's largest terrestrial and maritime archaeological sites *do* enjoy considerable attention from both academia and the general public, including the 'Big Dig' in Sydney's The Rocks, and Port Arthur in Tasmania. Both sites represent early British colonial heritage, are continually studied by archaeologists, are open to the public for tours, and incorporate extensive educational programs for visitors. Despite the success of the 'Big Dig' and Port Arthur as cultural heritage tourism destinations and archaeological excavation sites, however, there remains very little comparable data on either beyond phenomenological snapshots or 'necessary' financial detailing.

The 'Big Dig', which first underwent excavation in 1994 and represents at least 15 years of archaeological investigation into early colonial life in Sydney, was opened to the public in April 2010 alongside the 'Big Dig Archaeological Education Centre' and Sydney Harbour Youth Hostels Australia (YHA) accommodation facilities. Both the education centre and YHA facilities offer visitors various experiences, including participation on archaeological excavations and educational workshops. In 2016, the education centre celebrated its 50,000th school student participating in one of their educational programs (Frappell 2016, Nesmith 2016), a laudable milestone. Meanwhile, the YHA's 'floating' accommodation allows visitors to see and engage with the on-site cultural heritage via viewing platforms, artefact displays and creative

architectural designs which receive over 40,000 national and international visitors each year (Zarmati 2015).

With so many people visiting and experiencing the 'Big Dig', the sociocultural value of the site is disappointingly under-reported and over-generalised. The Sydney Harbour Foreshore Authority, which oversees the management and development of The Rocks, identifies that the area has various layers of aesthetic, historic, scientific, and social significance, but does not specify the nature of this claim (2010). They go further, arguing that the long-term 'value of The Rocks, either as part of our collective heritage or even in purely economic terms, vests in retention of its authenticity as an Australian historic place', but do not mention the 'Big Dig' directly (Sydney Harbour Foreshore Authority 2010, p. 28). Unfortunately, much of the literature discussing the 'Big Dig' only briefly discusses sociocultural value and does not provide any real actionable or generalisable data. Principally, it focuses on how much people enjoyed their visit, how much they reported learning, and how 'important' the site is in general terms (Karskens 1999, Zarmati and Frappell 2009, Zarmati 2015, Frappell 2016). No studies exist examining the longer lasting social impacts of site visitation, and there is scant exploration into the development of 'sense of place' or place attachment (including potential behavioural changes).

In contrast, the Port Arthur convict prison site in southern Tasmania has been the subject of more traditional studies emphasising economic value and sustainability, with a limited focus on sociocultural value. The Port Arthur Historic Site Management Authority's (PAHSMA) annual report cites 336,499 day visitors and 33,315 evening visitors to the site (a 9% increase and 1% decrease respectively from the previous year) over the course of 2016-2017 (Port Arthur Historic Site Management Authority 2017). The report further reveals that visitors spent, on average, $43.81 per person over the same period (a 2.5% decrease on the previous year), which contributed to the site's overall annual revenue of $16.45 million (generated by fees, tours, and merchandise) (Port Arthur Historic Site Management Authority 2017, pp. 12, 36). However, beyond 'visitor satisfaction' surveys, PAHSMA's annual reports do not discuss the site's sociocultural value. Between 2016 and 2017, the majority of respondents travelled to the site because of 'general historic interest', 92% of respondents were likely to recommend it, and all respondents used a range of information sources to plan their trip (Port Arthur Historic Site Management Authority 2017, pp. 24–25). No measurements utilising concepts from sense of place or place attachment theory were used to gauge sociocultural value, and the raw survey data is not publicly available. Arguably, the kind of information presented by PAHSMA only helps site managers justify business ventures, leading to a narrow understanding of a site's sociocultural impact. In fact, most publications concerning the

archaeological nature of Port Arthur fail to discuss the importance of the site in terms of the region's contemporary population, and the few that do focus on how the archaeological knowledge gained from the site is quickly lost on a modern consumer society (Morrison 2002, Jackman 2009).

But what about the stalwart museum? Surely, they represent an ideal access point between the curious visitor and the intangible nature of sociocultural value made real? Visitors certainly seem to think so, with a majority of travellers sojourning in local museums whenever they desire a cultural heritage experience while traversing Australia (Tourism Research Australia 2018b). Accordingly, many institutions now incorporate visitor outcomes into their operational guidelines, which include measures for visitor engagement and education, as well as curatorial and economic 'viability/sustainability' markers. Australia also has a wide variety of museums, from larger, formal governmental institutions managed, run, and interpreted by professionals in applicable disciplines, to smaller community museums overseen by local volunteers. With millions of visitors each year, museums represent, at the very least, a significant portion of the country's interactable cultural heritage. Despite their important role within the cultural heritage landscape, however, attempts to assess their sociocultural value appear to be once again the victims of excessive guesswork. Annual reports tend to be overwhelmingly business-oriented, with few discussing 'visitor satisfaction' or sociocultural value beyond what is required by their operational framework. The few that do discuss social impacts simply report what percentage of visitors were satisfied by their museum experience, but neglect to report how they measured satisfaction, or what it means in relation to the museum, its collections, or to the visitor themselves. Nevertheless, reported visitor satisfaction *is* high across Australian museums, with 81% of respondents in Canberra satisfied with their visit to a museum (National Museum of Australia 2017, p. 31), 95% in Sydney (National Maritime Museum 2017, p. 15), 97% in Queensland (Queensland Museum Network 2017, p. 11), and 98% in Western Australia (Western Australian Museum 2017, p. 25). Impressive, especially when considering how devoid of significance these figures actually are due to the lack of transparent collection and measurement methods. Because of this caveat, even simple economic data is, generally speaking, incomparable due to the myriad unique, on-site factors that remain unaccounted for by individualised data collection methods.

In the end, the sociocultural value of Australia's cultural heritage landscape, whether terrestrial, maritime, or Indigenous, is extraordinarily understated and understudied, despite increasing volumes of research promoting the importance of such data. Cultural heritage tourism clearly has value beyond the economic, value that penetrates deeply into the psyches of many individuals and community groups alike. It is an essential aspect of identity formation,

suggesting that it is not just an abstract concept to many, but a component of their mental health. Cultural heritage tourism sites also have a demonstrable social impact through the creation of jobs in the local community and educational opportunities for visitors, both of which can have long lasting implications for those associated with a site. Sociocultural value can simply no longer be ignored or overlooked. The adoption of more objective, semi-standardisable data collection and interpretation methods is necessary to properly advance our understanding of sociocultural value, and to build comparable datasets that allow us to further our analyses, join in broader national conversations about the distribution of resources, and argue for the continued protection of all cultural heritage material.

2.4 Working in a Difficult and Fractured Discipline

Maritime cultural heritage material is unique. It differs from terrestrial heritage on a very real, very physical level by the simple fact that it is often located (at least partially) underwater, making interpretation more difficult *a priori*. In addition, and although its metaphysical role in society's development is in many ways similar to the strictly terrestrial, its place in the sociocultural landscape bears some significant differences that inevitably result in interdisciplinary conflict. While the subsumption of maritime cultural heritage tourism data by other tourism sectors is perhaps *the* major issue for the industry and its corresponding academic disciplines, both are subject to the problems inherent to its uniqueness, and some symptomatic of a disinclination to form a methodological consensus. This section focuses on two of these issues: the lack of profile data on who the South Australian maritime cultural heritage visitor might be, and the lingering interdisciplinary conflict between archaeology and tourism. While other difficulties exist – primarily those associated with working on sites requiring SCUBA gear and the general distaste for quantitative analytics in archaeology – they are beyond the scope of this thesis. Nevertheless, this thesis does argue for the development of an original, interdisciplinary model of inquiry as a step towards overcoming a myriad of difficulties and, in some cases, a baseline for reconciliatory efforts between academic disciplines and industry sectors.

2.4.1 What Constitutes a Maritime Cultural Heritage Tourist?

Because maritime cultural heritage tourism is an understudied area in both archaeology and tourism, understanding the maritime cultural heritage tourist is a convoluted problem. The lack of data (and, in the presence of data, the lack of at least semi-standardised profiling techniques) makes comparing visitors across maritime cultural heritage sites difficult at best. Indeed, attempts to 'profile' the average visitor to *any* cultural heritage tourism site in Australia are typically either hyper-focused on site-specific details or overgeneralised to an impractical degree. Furthermore, researchers are often interested in only a few, specific metrics, be they economic (visitor numbers, country of origin, direct on-site spend, etc.) or sociocultural (visitor motivation, satisfaction, etc.), and usually collect data using methods developed *ad hoc* to suit the type of site under study. Though much of the data collected in the last few decades is useful to a degree, the lack of semi-standardisable, holistic data gathering methods designed for cultural heritage tourism means it is currently impossible to accurately profile the 'average' maritime cultural heritage site visitor across multiple sites. Other methodological issues also result in interpretation biases that colour data interpretation. For example, 'stakeholders' (individuals and groups with a vested interest in a site's continuance) are often consulted

regarding a site's sociocultural value, even if the stakeholders in question do not represent regular visitors to the site. Terminology also presents a roadblock where profiling is concerned. Broadly speaking, maritime cultural heritage site visitors are profiled according to which area of 'special interest tourism' their activities arguably belong, creating further division between disciplines and potentially diluting meaningful data. Indeed, maritime cultural heritage tourists are usually categorised as 'cultural heritage', 'museum', 'dive', or 'beach' visitors, if they are even defined. Despite these issues, scholars agree that accurate and comparable visitor profiles are vital to the success of the maritime cultural heritage tourism industry and the ongoing preservation of maritime cultural heritage material (Isaac 2008, Allan 2014). This is principally because understanding the audience can help managers, practitioners, and operators effectively target said audience. Furthermore, it allows for the opportunity for engagement and interpretation managers to branch out and target *different* audiences.

This is particularly relevant when the research that *does* exist on profiling often suggests that visitors to maritime cultural heritage sites have a diverse range of motivations for visiting that have *nothing* to do with cultural heritage. In fact, it is arguable that the important definitional factor of what *makes* a cultural heritage tourist is actually in the result of their visit rather than its catalyst. Nevertheless, some scholars suggest it is reasonable to define a cultural heritage visitor as one seeking any experience related to cultural heritage material that ultimately causes them to think or behave in a manner that incorporates said material (McKercher 2002). This is despite behavioural outcomes rarely featuring in cultural heritage visitor profiles, which strongly suggests that such broad classifications are either not useful or not particularly well understood. Indeed, detractors argue that it represents a gross oversimplification of complex human motivations, reducing psychologically in-depth processes to a meaningless umbrella term for ease of reporting (Tourism Research Australia 2010, State Heritage Unit 2015, p. 17, National Trust 2018, Cultural Attractions of Australia 2019). Still, the tourism industry has long endorsed the axiom 'know your audience' to better target commercial interests, increase exposure, and develop a more sustainable industry, perhaps making some reductivism necessary (Taheri et al. 2014, 2019).

With this in mind, the currently available data classifies the 'average' global cultural heritage visitor as a person between 30 and 50 years old, well-educated with either a college or university degree, affluent with a 'white collar' job, and a frequent traveller to 'exotic' destinations. It should be noted, however, that regional variations can and do occur. Notably, many of the 'profiles' these averages are drawn from fail to investigate race, culture, gender, or ethnicity (Silberberg 1995, Kerstetter et al. 2001, Richards 2002, Huh et al. 2006, Timothy 2011). Tourism groups also regularly promote the claim that cultural heritage visitors stay

longer and spend more money than those who engage in other forms of special interest tourism (Silberberg 1995, Kerstetter et al. 2001, Richards 2002, Huh et al. 2006, Timothy 2011). Some studies suggest this is not the case (Borg et al. 1996, Ashworth and Tunbridge 2005), arguing that cultural heritage visitors actually engage in *shorter* trips than those who go to beaches and beach resorts. It is possible that this discrepancy is due to a failure to account for continental ethnographic differences in culture, such as those between the Americas and Europe (see Timothy 2011, Kerstetter et al. 2010, Silberberg, 1995, Ashworth and Tunbridge 2005, and Borg et al. 1996).

This plays into the overgeneralising nature of the category, however, and ignores the difficulty pinpointing precisely *why* this may be the case, prompting others to argue in favour of increasing the category's granularity (especially in distinguishing between different motivational drivers for visiting cultural heritage sites) (ICOMOS and WTO 1993, Silberberg 1995, Stebbins 1996, Poria et al. 2001, McKercher 2002, Timothy 2011, Nguyen and Cheung 2014). Indeed, an increasing amount of literature suggests that individual visitor motivation varies considerably even within a single travelling group (Hughes and Carlsen 2010, Nguyen and Cheung 2014, Smith 2016). The most commonly reported motivations include the desire to create and develop relationships by socialising with family and friends, to be more self-reflective and explorative, to re-live nostalgic events at the location, to exercise, to create a spiritual experience, to learn or develop new skills, or to simply relax and sightsee (Timothy 2011, pp. 35–36).

Studies seeking to further granulise visitor motivations typically apply different theoretical approaches to data collection and therefore tend to have wildly different outcomes. ICOMOS and WTO (1993) were among the first organisations to release research attempting to redefine and classify cultural heritage visitors based on their individual motivational drivers. Their model of inquiry was built around World Heritage listed sites and focused on knowledge: specifically, how much knowledge a visitor possessed about a site *pre-visit* and how much they sought to learn *during* their visit. Similarly, Stebbins (1996) proposed classifications based on how much a visitor wants to learn about a site but disregarded how much visitors already knew. Conversely, Silberberg (1995) argued that a visitor's interest in the cultural heritage of a site is far more important than their knowledge, emphasising agency over perspicacity to determine if a visitor was indeed of the cultural heritage variety (i.e., was the decision to visit the site premeditated or spontaneous?). Poria, Butler, and Airey (2001) retreat from itineraries altogether, redeploying cultural heritage tourism as a function of a location's own classification as a cultural heritage site and how the visitor's own heritage relates to it. McKercher (2002) iterates on this idea, separating visitors by how important visiting cultural heritage material is

to them and how deeply they engage with it once they are on-site (stressing the importance of observable behaviour over subjective self-reporting in some cases).

Differences between sites also encourage methodological division whenever visitor profiling is concerned. Museums, for example, are widely considered core cultural heritage tourism destinations, but differ from *in situ* cultural heritage tourism sites due to their collectivistic and curated nature. This 'same but different' status comes with advantages and disadvantages for visitor profiling. Unlike *in situ* sites, museums often do not possess an intrinsic locative heritage quality, which makes them transient when necessary and, as a consequence, supremely accessible. Conversely, museums tend to operate almost exclusively at the behest of economic rationalism and are under constant pressure to attract more visitors and expand financially (Goulding 2000). This obsession with fiscal viability has forced museums to focus developing visitor profiles that talk to actionable marketing strategies and business plans (McLean 1994, Kawashima 1998, Tufts and Milne 1999, p. 617, Reussner 2003, Huo and Miller 2007, Culley 2010, p. 7, Allan and Altal 2016). Despite the narrow scope of profiling efforts in this sector, it is worth noting that the current data suggests the average museum visitor is between 20 and 40 years old, well educated, and earning a high income (Larson 1994, Gil and Ritchie 2009, Allan and Altal 2016, Christiansen 2018). Museum visitors report being motivated by the desire to socialise, to do something 'worthwhile', to gain a new experience, to learn, or to relax comfortably (Dean 1996, pp. 23–25). Some scholars also divide museum visitors into smaller subgroups based on how deeply they engage with and behave at the museum's interpretation, but this may be driven by the desire to optimise economically driven outcomes regarding visitor activity and spending habits (Dean 1996, Falk 2016, Najbrt and Kapounová 2016).

Conversely, dive tourism is a relatively new special interest area of tourism predicated on the availability of personalised SCUBA equipment. It is now a multi-billion dollar industry (Orams 1999, Edney 2006, 2012, 2017, 2018, Klint et al. 2012, Dimmock and Cummings 2013, Andy et al. 2014, Edney and Spennemann 2015), and there is a growing body of literature that focuses on dive visitors and their motivations. Unfortunately, only a small portion of studies examine the industry's relationship with cultural heritage, and those that do tend to focus on shipwrecks and shipwreck diving (Edney 2018, pp. 2–3). Still, the average dive tourist arguably has a profile that is currently understudied and underappreciated, particularly in light of the special training required to SCUBA dive in the first place, which some claim can impact a visitor's motivations and attitudes in uniquely specific ways (Edney 2018, p. 3). Additionally, and perhaps because SCUBA diving is classified as an extreme sport, the reasons an individual chooses to dive (and further, to dive on a maritime cultural heritage site) vary greatly.

Some of the more common reported motivations for diving include to see marine life (Dearden et al. 2006, Edney 2012, 2018, pp. 35–40), to bond with family and friends (Howard 1999, Cater 2008, Lucrezi et al. 2013), to relax (Ditton et al. 2002, Tschapka and Kern 2013, Fuchs et al. 2016), to seek a challenge (Augustine et al. 2016, Bentz et al. 2016), to learn about the marine environment (Augustine et al. 2016, Bentz et al. 2016), to see unique geological formations (Howard 1999, Bentz et al. 2016), or to have an internalised reflective experience (for example, to seek solitude) (Cater 2008, Kler and Tribe 2012, Edney 2018, pp. 35–40).

Why individuals *enjoy* diving is also a question commonly explored by the literature. Scholars have discovered that, for many divers, enjoyment is largely dependent on external factors, including how many divers there are on the site (with most preferring limited crowds underwater) (Tschapka and Kern 2013, Augustine et al. 2016, Bentz et al. 2016), how good visibility is (Howard 1999, Dearden et al. 2006, Uyarra and Côté 2007, Augustine et al. 2016, Bentz et al. 2016), and how warm the water is (Musa 2002, Dearden et al. 2006, Fitzsimmons 2009). These variations in motivation indicate that cultural heritage tourism operators should consider factors beyond the heritage interpretation presented on-site that encompasses other environmental variables as a core component of the visitor's experience. Nevertheless, current data suggests that the average recreational diver is male, well-educated, affluent with a higher than average income, and between 35 and 45 years old (Ditton et al. 2002, Musa 2002, Uyarra and Côté 2007, Lemke and Olech 2011, Musa et al. 2011, Tschapka and Kern 2013, Bentz et al. 2016). It is important to note that this basic profile is based on *all* forms of diving and dive tourism, however, and not just shipwreck or underwater cultural heritage diving.

Beaches themselves have been popular tourism destinations for visitors for many years. Due to the nature of 'conventional' beach tourism, however, a significant portion of research surrounding visitor profiling looks predominantly at the attraction best summarised as 'sun, sea, sex, and sand'. Furthermore, a remarkable preponderance of this research is limited to the older Western cultural sphere of influence (i.e., European and American visitors to Mediterranean and Mexican/North American beaches). Regardless, research has found that the main motivational drivers for people visiting beaches includes seeking physical self-development (in the form of tanning, toning, and displaying their bodies), a desire to explore the unknown 'wild', to escape everyday life, to seek 'serenity', to advance social bonds, to feel uplifted, or to gain a sense of self-awareness (Crang 2004, Morgan 2004, Prentice 2004, Preston-Whyte 2004). There also appears to be several external factors that typically impact how much a visitor enjoys their experience, and recent research demonstrates that they are present regardless of site type or geographical location. These include water and sand quality,

the ‘atmosphere’, the availability of facilities, safety, family-orientation, accessibility, and tranquillity (Botero et al. 2014, Roca and Villares 2018, Dodds and Holmes 2019). Accordingly, the data suggests that the ‘average’ beach visitor is female, highly educated (Blackwell 2007, Raybould and Lazarow 2009, Dodds and Holmes 2019), and likely to travel in groups of young people (teens to early twenties) or as family units (Roca and Villares 2018).

2.4.2 Who is the South Australian Maritime Cultural Heritage Tourist?

In South Australia, the SATC releases data on how the industry has progressed – as well as identifying areas for future growth – every quarter which involves visitor profiling. Frequently, the SATC collaborates and shares data with Tourism Research Australia, and while this relationship is beneficial for research, both organisations have a strong focus on expounding economic value. This creates complexity when trying to determine who the ‘average’ cultural heritage visitor is to South Australia, as reports tend to be structured around identifying opportunities for financial growth within the region. The profile of the overall ‘average visitor’ to South Australia is divided between several report types and further dispersed between multiple regional reports, including: the Annual Visitor Summaries (South Australian Tourism Commission (SATC) 2019e, 2019f, 2019g, 2019h, 2019a, 2019i, 2019j, 2019b, 2019k), which focuses on overnight visitors to each tourism region in the state; the Domestic Visitor Profiles report (South Australian Tourism Commission (SATC) 2018b, 2018c, 2018d, 2018e, 2018f, 2018g), which profiles interstate overnight visitors from each state or territory; and an International Market Profile (South Australian Tourism Commission (SATC) 2019l), which identifies South Australia’s key international markets. The ‘average’ visitor to South Australia is – according to all three reports – evenly represented across age ranges. A slight majority come for a holiday rather than to visit friends or relatives or for work, and the top five activities they engage in while in the state include (when comparing preferred activities based on regional percentages): ‘eat out/restaurant/café’, ‘visit friends and relatives’, ‘sightseeing’, ‘go to the beach’, and ‘pubs, clubs, discos etc.’ (South Australian Tourism Commission (SATC) 2019b, 2019e, 2019h, 2019o, 2019i, 2019f, 2019m, 2019k, 2019j, 2019a, 2019n, 2019g).

However, the reports lack inter-connection and standardised models of inquiry, which makes the data ambiguous. Indeed, disparities become clear when examining, for example, the ‘visitor activities’ section of the Annual Visitor Summaries report, where vagueness over visitor type makes comparing data difficult (for example, while the report claims that activities relate to ‘domestic visitors’, it is unclear if ‘day trippers’ are included in the calculation as opposed to previous sections in which only overnight visitors are included). Even when reduced to raw percentages, the actionable value of some visitor data remains equivocal. Using the activity

of ‘eat out/restaurant/café’ as an example, 61% of domestic visitors to the Eyre Peninsula region self-reported engaging in this activity while 62% of visitors to the Fleurieu Peninsula region self-reported the same, indicating a similar market in both regions. However, there is a sizable difference when calculating the actual number of visitors who engage in this activity per region. For the Eyre Peninsula, which receives 403,000 domestic overnight visitors and 391,000 domestic day trippers annually, this could potentially be 245,830 or 484,430 people, respectively. For the Fleurieu Peninsula, which receives 706,000 domestic overnight visitors and 2,609,000 domestic day trippers annually, this could potentially be 437,720 or 2,055,300, respectively (South Australian Tourism Commission (SATC) 2019e, 2019b). Other issues arise from non-standardised or non-clarified terminology. According to the reports’ data on visitors to the Kangaroo Island region, only 13% report having ‘visited or stayed on an island’ (South Australian Tourism Commission (SATC) 2019f). Similarly, in the Adelaide Hills and Barossa regions, 12% and 9% of visitors respectively reported going to the beach (South Australian Tourism Commission (SATC) 2019m, 2019n). This, of course, can be accounted for by visitors who ‘day tripped to another region’ during their stay, but it raises the question of whether such an answer has any real actionable value for those particular (landlocked) regions.

Further issues are present in both the Domestic Visitor Profiles and the International Market Profile report, which focus exclusively on visitors from other states, territories, and countries. While they provide information on visitors’ ages, places of origin, length of stay, and (for the Domestic Visitor Profiles report, at least) top self-reported activities, they once again fall victim to ambiguity and a lack of actionable value. After all, how does knowing that 72% of visitors from New South Wales (NSW) self-report ‘eat[ing] out/restaurant/café’ (South Australian Tourism Commission (SATC) 2018g) help increase visitation from that state when eating is a necessary bodily function? Indeed, allowing respondents to self-report their activities is immediately problematic, since subjective connotations render many responses questionable (though monitoring visitors to objectively determine their activities is, of course, not feasible). According to the Domestic Visitor Profiles report, a large portion of the South Australian tourism industry relies on the state’s food and wine offerings. However, allowing respondents to answer on their own terms through only broad multiple-choice options makes it unclear which activities fall under the ‘food and wine’ umbrella. In fact, at least five of the 23 listed activities are potentially applicable: ‘eat out/restaurant/café’; ‘pubs, clubs, discos’; ‘visit wineries’; ‘picnics or BBQs’; and ‘go to markets’.

These problems are exacerbated by the fact that the model of inquiries deployed by the reports do not control for the potential presence of bias in respondent and researcher; both are able

to freely interpret the meaning of each self-reported category of activity. Similarly, activities like ‘sightseeing’, ‘day trip to another place’, and ‘none of these’ do not provide any specifically useful information other than providing general umbrella terms for a potentially infinite list of activities. Consequently, some practitioners argue that – in South Australia – much of the ‘sightseeing’ visitors undertake probably includes cultural heritage material, effectively removing them from more granular delineation and resulting in an underestimation of cultural heritage’s contribution to the state’s tourism industry (Darren Peacock, Inaugural Heritage Tourism Conference, Adelaide, 2019). Although this *does* constitute an instance of standardisation, it is also evidence that some flexibility or, at the very least, a more granular approach is necessary. Unfortunately, the SATC and TRA do not have any immediate plans to change the wording of their surveys, as this would again render the reports incomparable.

It seems that building an initial, and, at the very least, semi-standardised profile of who the ‘average’ maritime cultural heritage visitor is in South Australia is a complex task. Based on the currently available data, the state’s ‘average’ maritime cultural heritage visitor could be of any age, any gender, and with an undetermined education level. They are, however, likely to have a high disposable income, and to have travel motivations that include desires to relax, learn about new hobbies or themselves, engage with friends and family, and eat out at restaurants or cafés. Such a profile is vague at best, and certainly does not provide any actionable information beyond basic assumptions, like visitors tend to do things, spend money, and eat food. Understanding motivational drivers in particular is vital to the ongoing management and conservation of maritime cultural heritage tourism sites and should consequently be considered vital to any attempt at visitor profiling. Arguably, there is no other way for heritage managers, practitioners, and tourism operators to effectively target key visitor groups when promoting their maritime cultural heritage sites, and there is no better way for anthropologists and archaeologists to confer educational material in a manner that visitors will retain (Hølleland 2019).

2.4.3 Interdisciplinary Conflict

Archaeology and tourism are natural allies, despite the recurring ideological conflicts that seemingly pit them against one another for the same resources (Baram 2008, Castañeda and Mathews 2013, Cassar 2014, Doyle 2019, Mihelić 2019). Humans have always speculated about their past, and people and cultures from all over the world implicitly engage in both individual and collectivistic identity formation through their understanding of heritage (Smith and Ehrenhard 2002, pp. 121–122). Arguably, the concept of Western anthropology began formalising – in its most loosely definitional sense – during the Renaissance, when people of

'refinement' and 'wealth' began to display heritage material in 'cabinets of curiosities'. Here, ancient artefacts would be displayed next to exotic minerals and other objects considered part of the world's 'natural history' (Renfrew and Bahn 2008, p. 22). Unsurprisingly, it was during the Renaissance that scholars began to widely study artefacts collected from Classical antiquity. Moreover, travellers and tourists of this era would travel specifically for the purpose of acquiring artefacts for themselves and other private collectors, inadvertently making cultural heritage tourism the earliest form of tourism (Timothy and Boyd 2006, Timothy 2011, pp. 1–11).

Today, tourism and archaeology are largely considered distinct industries and academic disciplines (Bradley 2006, Díaz-Andreu 2013, Walker and Carr 2013b, p. 12). Some scholars suggest this is the fault of academic compartmentalisation, which encourages scholars to spend their entire careers examining similar, overlapping subjects from different perspectives and to publish results as separate collections of information, creating division between collective discourses (Walker and Carr 2013b, p. 12). Despite the disciplines sharing common ground since the Renaissance, Cameron Walker and Neil Carr note that even in the 21st Century, 'it is still somewhat unusual for an article on archaeological tourism to be intended for an interdisciplinary audience or for the literature to incorporate other fields' (2013b, p. 12), even though archaeological practitioners began incorporating tourism concepts into their work during the late 1990s. Furthermore, it is rare for scholars to discuss issues viewed as critical to the other discipline, and the few researchers who do cross 'realms' tend to have little influence or standing with their academic counterparts (Walker and Carr 2013b, p. 16). McKercher and du Cros (2012, p. 2), however, argue that while the two disciplines may share a number of concerns and common goals, they 'still operate in parallel, with little real evidence being shown of true partnerships forming'. This may, in part, be due to the fact that some archaeologists and other heritage managers 'resent tourists for distracting them from their curatorial goals' (Garrod and Fyall 2000, p. 684).

The disinclination towards collaboration has reached a point where some scholars are questioning whether tourism and archaeology can actually coexist (Jameson and Scott-Ireton 2007a, p. 2, Díaz-Andreu 2013, Walker and Carr 2013b, p. 26). Indeed, the lack of cooperation is also evident at a site management level. Globally, the tourism industry frequently uses archaeological sites and unique discoveries to commercialise and 'sell' heritage to the public, sometimes to promote their respective countries internationally or to boost national pride internally (Greenwood 1989, Hubbard and Lilley 2000, Ardren 2004, p. 103, Baram and Rowan 2004, p. 4, Layton and Wallace 2006, Lovata 2007, p. 91, Walker and Carr 2013b, p. 20). The 'selling' of heritage has set some archaeologists at odds with tourism developers and, in some

cases, tourists themselves. Despite this, and while there is a demonstrable consensus that 'few people are interested in archaeology in the same way archaeologists are' (Holtorf 2006, p. 20), many people seem to agree that the unbridled commodification of archaeological sites poses a valid ethical dilemma, otherwise terms like 'treasure hunters', 'grave robbers', and 'private collectors' would not be associated with selfish, destructive ideologies (Hollowell 2014, Sánchez 2015). Consequently, many archaeological codes of ethics explicitly denounce the commercialisation of cultural heritage material, often arguing that archaeological sites belong broadly to a group of peoples or all of humanity (Hollowell 2006, p. 79). Discussing this ethical issue – of introducing tourism at sites as selling heritage – beyond its identification as a point of tension between the tourism and archaeology disciplines is beyond the scope of this thesis, however. For more information regarding the commercialisation ethics debate, see Greenwood 1989, Hollowell 2006, Layton and Wallace 2006, and Sánchez 2015.

For some, the ideological divide is also personal. Many archaeologists claim that the tourism industry is yet another stakeholder that may manipulate their work while being detrimental to cultural heritage sites. Conversely, tourism operators often claim that archaeologists interfere and are unnecessarily complicating tourism development and promotion (Engelhardt 2004, Jameson and Scott-Ireton 2007a, p. 2, Walker and Carr 2013b, p. 20, Doyle 2019). Still, as long as individuals continue to visit cultural heritage sites, archaeologists and tourism operators have a crucial and unavoidable need to be involved with one another (Schadla-Hall and Larkin 2004, p. 1, Scott-Ireton and McKinnon 2015, p. 159). One suggestion is to introduce tourism concepts to archaeology and anthropology courses at the educational level. Few archaeologists have any tourism training and therefore lack an understanding of tourism-centric interpretation theories and strategies, including basic ideas like how interpretation should 'provoke, relate, and reveal' narratives to the audience (Ham 2013) and how to effectively address different types of visitors (i.e., streakers versus strollers versus students) (Chicone and Kissel 2013, pp. 50–51). This gap in knowledge contributes to the inconsistencies currently plaguing 'interpretive' signs created by cultural heritage professionals.

Archaeologists tend to assume that visitors to cultural heritage sites are motivated by a desire to learn about and experience something historically authentic (Walker and Carr 2013b, p. 23), but, as has already been discussed in Sections 2.2 and 2.3, this is not necessarily the case. Increasingly, research suggests that a desire to simply be entertained is the principle reason people visit cultural heritage sites (Slick 2002, p. 223). Interestingly, this has resulted in the general acceptance of consumer amenities on-site, such as souvenir shops and cafés, something both visitors and archaeologists once uniformly considered derogatory to the

experience (Gazin-Schwartz 2004, Walker and Carr 2013b, p. 24). Despite the shift in public sentiment, many archaeologists decry the amount of influence commercialisation seems to exercise on visitors (Walker and Carr 2013b, pp. 26–27), reinforcing their negative perception of the tourism industry as a whole. Regardless of their objections, the reality is that cultural heritage sites are increasingly being opened to more visitors, making the advent of consumer amenities on-site all but inevitable (Doyle 2019). Yes, the installation of modern facilities over or near cultural heritage material carries with it potentially negative impacts on a site's composition and level of conservation: physical damage is an ever-present and often callously ignored risk, which can, has, and will lead to the inadvertent destruction of poorly managed sites (Magness-Gardiner 2004, pp. 37–38, Holtorf 2006, p. 114, Jameson and Scott-Ireton 2007a, Walker and Carr 2013b, p. 27). Simply positioning archaeology as an oppositional force is not the answer, however, and may only lead to the discipline's further marginalisation and the possible removal of academic voices from site management altogether.

Conversely, the tourism industry continues to have an overwhelming and arguably disproportionate impact on how the excavation, study, and conservation of cultural heritage material is resourced (Comer and Willems 2019b). While larger, more popular sites tend to attract the most significant public attention and, therefore, the most public resources, the truth is that most cultural heritage sites are regarded as second or third tier (small scale sites). Consequently, most cultural heritage sites do not enjoy the same level of funding and protection as larger sites, despite some being more archaeologically or scientifically significant than their popular counterparts (Wilde-Ramsing and Ewen 2012, Williams 2018, Blair 2020). Furthermore, archaeologists often unwittingly play into this populist system of resource allocation by focusing institutional efforts on sites that are more likely to generate income or notoriety (Wilde-Ramsing and Ewen 2012, Blair 2020). The role of smaller sites is vital to understanding the economic and sociocultural value of cultural heritage, and yet, the opportunities they present are frequently neglected in favour of building into the pre-existing work of more widely known sites (Castañeda and Mathews 2013). Smaller sites may never appear on postcards or be promoted as national heritage, but they often appeal to visitors looking to get 'off the beaten path' and experience a more isolated or naturalised piece of history (Castañeda and Mathews 2013), and, of course, many artefacts are still collected from these smaller sites that contribute to our understanding of the past. Perhaps, then, archaeologists and tourism operators share more common ground than they are prepared to admit. Castañeda and Mathews argue that many institutions – including universities – sometimes consider the 'idealistic' goals they claim to encapsulate to be resource-heavy investments with little payoff (Castañeda and Mathews 2013). Few institutions, say Castañeda and Mathews, reward the pursuit of such goals.

Arguably, economic rationalisation may once again dictate the future of both archaeology and cultural heritage tourism if they continue to operate independently of one another. Recent policy shifts within some of the world's major governments suggest that anthropology and archaeology (among other humanity-based disciplines) are being slowly but systematically defunded (Braddick 2013, Society for American Archaeology 2017, Malakoff 2018, Shaw 2021, Schofield 2021, Escalante-De Mattei 2021). The most recent example of this saw the closure announcement of the Archaeology Department of the University of Sheffield (Whelan 2021, 'University of Sheffield confirms archaeology department closure' 2021, Escalante-De Mattei 2021). Unfortunately, museums and universities seem to bear the brunt of funding many non-commercial archaeology projects, with museums forced to incorporate economic endpoints into their operational strategies and business plans, and universities increasingly left to act at the financial behest of private interest groups and investors (McPherson et al. 1998, Castañeda and Mathews 2013, Booth and Powell 2016).

Similarly, cultural heritage tourism in South Australia struggles to ideologically emancipate itself from the broader tourism industry, instead generally subsisting as an amalgamation of adventure and nature-based tourism and fighting for resources whenever doing so happens to convenience its more prolific contemporaries (Tourism South Australia 2015b, South Australian Tourism Commission (SATC) 2016b). When so many authors are claiming that the success of archaeology and its validation as an academic discipline rests with the public's interest and support to consume the past (Kidder 1930, Fagan 2002, Lipe 2002, Slick 2002, Little 2004, Castañeda and Mathews 2013), it is hard to argue that its objectives are really that far removed from those of cultural heritage tourism. At the very least, it is through an effective and combined approach to interpretation and communication with the public that both archaeology and cultural heritage tourism can grow, consequently providing one of the greatest justifications for protecting and conserving heritage material (Kidder 1930, p. 99, Slick 2002, Carman 2005, p. 47, Jameson and Scott-Ireton 2007a, p. 3).

In addition, there is still a pervasive view in both tourism and archaeology that engaging with the public beyond what is superficially necessary is not ultimately meaningful or justifiable. Indeed, most universities within Australia exclude public engagement from performance metrics in archaeology-based disciplines and – as discussed in Sections 2.2, 2.3 and 2.5 – cultural heritage tourism places an almost exclusive monopoly on economic-based outcomes for sites. This results in archaeologists targeting and publishing to a narrow audience consisting primarily of professional colleagues (Fagan 2002, Lipe 2002, p. 20, Slick 2002, p. 227) and cultural heritage tourism operators developing minimum viable products to simply

fulfil quarterly visitor quotas. A combinatory approach to public engagement would represent an ideal platform for both archaeology and cultural heritage tourism to expand their purview, gaining greater support from the general public and opening up communication with 'normal, intelligent, and literate human beings, not just … ourselves and the converted' (Fagan 2002, p. 6). Castañeda and Mathews, however, consider this argument 'mundane and scandalous', pointing out that it is little more than a tautology: getting people interested in cultural heritage will necessarily generate more interest in cultural heritage (Castañeda and Mathews 2013). Accordingly, they consider the argument scandalous because it implies that archaeology, as an academic discipline, *must* conform to the rules of tourism to continue being academic, suggesting that the discipline has no value of its own. Arguably, however, Castañeda and Mathews are engaging in an act of *reductio ad absurdum*, asserting that this line of thinking leads to archaeology 'actively [participating] in the creation and propitiation of tourism in order to survive!' (Castañeda and Mathews 2013), when, in fact, the opposite is equally tenable.

While the creation of engaging, entertaining, and educational experiences may result in tourism as a *by-product*, the endpoint goal of doing so need not be solely to increase visitor numbers, but also to have a positive effect on archaeology's profile and public engagement in general. It also means archaeologists may become more amicably involved in limiting potential damage at significant cultural heritage sites, especially when identifying and communicating the benefits of archaeology to the public is a top priority (Little 2002, p. 3, Gustafsson and Karlsson 2012, Scott-Ireton and McKinnon 2015, p. 166, Comer and Willems 2019c, Pawleta 2019). Opening cultural heritage sites to the public is a long and often complex process that requires a range of considerations, including environmental concerns, accessibility, and practical methods of conservation. Archaeologists *need* to be at the forefront of these leading bipartisan efforts to accommodate all factors, rather than being the dissenting and disconnected voice at the back of the room. Otherwise, they risk being 'fundamentally misrepresented' by the tourism industry, the media, and the public (Gable and Handler 2004, pp. 178–179, Holtorf 2006, p. 105, Walker and Carr 2013b, p. 27, Underwood 2014, p. 38).

Nevertheless, Castañeda and Mathews describe the tourism industry as a 'rapacious disease that permanently destroys "authentic" cultures, communities, and archaeological heritage' (Castañeda and Mathews 2013), arguing, along with a significant body of literature, that tourism is ultimately a form of exploitation (Ardren 2004, Holtorf 2006, Lovata 2007, Castañeda and Mathews 2013, Walker and Carr 2013b). Scholars who subscribe to this theory tend to claim that sites are and should be valued for their sociocultural value alone, and worry that the encroachment of tourism concerns on the study and conservation of cultural heritage material will lead to economic value being the only valid metric of a site's worth (Baram 2008).

Conversely, Kidder contends that the creation of tourism ventures as promotional outlets is invaluable to archaeology, as it breaks the cycle of archaeologists conversing with themselves and allows the public to understand and appreciate the work they do (Kidder 1930, Fagan 2002, Hoffman et al. 2002, Jameson and Scott-Ireton 2007a, Scott-Ireton and McKinnon 2015). To this end, an increasing number of archaeologists are recognising the need to engage with the public through tourism, which has encouraged the development of community and public archaeology as sub-disciplines. Consequently, many are moving beyond an 'excavate and leave' mentality and are interacting more with community stakeholders (Hodder 2002). A positive sign, given that the responsibilities of stewardship, interpretation, and ongoing site sustainability are just as vital to modern archaeological research as permits and trowels (Walker and Carr 2013b, p. 20).

Interestingly, several examples of collaborative projects already exist, and all of them have surpassed apparent expectations. Varnhem, Sweden, is one such example, where funding was divided equally between archaeological investigation and public outreach, making both core components of the site's management (Axelsson 2019). Throughout the entire project, the site was open to the public, and archaeologists working on-site directly engaged with the public and frequently spoke to the media. While this was time consuming and extended the site's excavation period significantly, it also produced a working environment in which local communities felt not only consulted, but intricately involved (Axelsson 2019). When excavation finally finished, the same communities took ownership of the site and have continued to freely develop tourism avenues, which also involved the unilaterally agreed upon conservation and protection of the site as a whole (Axelsson 2019).

Across Australia, the cultural heritage tourism industry has been responsible for resourcing the conservation and preservation of many architectural heritage buildings and other cultural heritage material (Hall 1998, p. 237). While the goals of archaeology and the tourism industry do at times undeniably conflict, conciliation may be the only practical way for either to coexist in an era of economic rationalisation. Both disciplines need to overcome their biases to consider the other as an equal partner rather than adversary (Slick 2002, p. 221, Scott-Ireton and McKinnon 2015, p. 159), otherwise the worst-case alternative may become a reality: that society reduces all cultural heritage material to virtual storage data, and *in situ* heritage ceases to remain relevant to funding bodies and the general public. Combining approaches may enhance the public's awareness of archaeology, and, in turn, increase our understanding of what cultural heritage material means to the modern-day communities and individuals that engage with them. Finding common ground may also allow for the development of sustainable tourism growth, with archaeological voices at the forefront of conservation campaigns backed

rather than belittled by commercial interests, all while meeting the needs of current populations without compromising the needs of future generations (Higgins-Desbiolles 2017).

2.5 Chapter Summary

This chapter argued that maritime cultural heritage tourism is currently an understudied area of both maritime archaeological and tourism research. Despite both disciplines recognising the important role maritime cultural heritage sites play within their fields of study, collaborative projects are yet to be realised, especially in Australia. Comparatively speaking, there is an abundance of studies regarding the sociocultural, historical, archaeological, and economic impacts of terrestrial cultural heritage on modern society (though this is still minimal when measured against other forms of tourism-based sites). Although tourism is an ever-expanding discipline with many governments pushing for the growth of the industry, maritime cultural heritage sites remain understudied and underutilised from both an industry *and* an academic perspective. Within the South Australian context, this remains true, and there may be several reasons for this. The first is the lack of any formally recognised cultural heritage tourism industry: despite being a significant global industry with a plethora of sites, researchers, and publications, South Australia is yet to capitalise on it. While efforts have commenced to rectify this (with the Inaugural Australian Heritage Tourism Conference in 2019, and the State Heritage Unit creating a Heritage Tourism Agenda for the state government), the state's formalisation of the industry is arguably in its infancy.

Additionally, limited academic interest has led to a limited comprehension of how the industry functions and what the economic and sociocultural impacts of maritime cultural heritage material are. Who visits these sites? Why? For how long? What is their impact on the site, and conversely, what is the site's impact on them? For South Australia, these are simply unknown variables. Consequently, it is hard to build an industry if you do not know who the industry is for, and thus a broader question becomes apparent: what is the value of maritime cultural heritage tourism? With scant studies in the state concerned with even terrestrial cultural heritage sites, value is currently, at best, an assumed and mostly economically based quantity. Unfortunately, many developers in South Australia prefer this indefinite valuation, as they can effectively argue to governmental bodies – and in some cases, the public – for the demolition of maritime cultural heritage sites in the name of 'progress', 'more jobs', and 'increased tourism benefits' (Eichler 2015, 2016a, 2016c, Evans 2016, Pisani 2017, 2016a, 2016b, Siebert 2019, Bond 2019a, 2019b, Goers 2019, Lesh and Myers 2021). Ultimately, understanding and articulating a site's economic and sociocultural values in unison is increasingly essential. Doing this may go far in justifying the expenditure of public money on protecting maritime cultural heritage sites by demonstrating quantifiably how integral they are to visitors and local communities alike (Carman 2005, p. 48, Grenville and Ritchie 2005, p. 213, Underwood 2014,

p. 35, Lesh and Myers 2021). While some scholars argue that combining tourism and archaeology will be detrimental to the sites themselves (Thierstein 2019, Thomas and Langlitz 2019), others disagree. ‘If archaeology does not play an active role in contemporary society it risks being considered meaningless and then isolated’ (Court et al. 2019, p. 32).

3 Methodology

'It's not just a keel and a hull and sails; that's what a ship needs. Not what a ship is. What the Black Pearl really is, is freedom'.

— Captain Jack Sparrow, Pirates of the Caribbean: Curse of the Black Pearl (2003)

The inability of current methodological approaches to comprehensively answer certain questions about the maritime cultural heritage tourism industry is not so much a technical failure as it is a phenomenological one. Because the study and conservation of maritime cultural heritage is subject to so many competing ideological perspectives (the traditional focus interest of archaeologists in the material itself – see Section 2.1 – the preoccupation with remuneration as defining value – see Section 2.2 – the subsuming of maritime cultural heritage tourism under broad and inappropriate categories – see Section 2.4 – etc.), datasets are often incomplete and fractious, designed to acquire data relevant to a single perspective or conducted using methods tailored to a specific ideology or goal. This divided approach to maritime cultural heritage's study, conservation, and interpretation is slowly destroying our ability to promulgate its significance – beyond an already entrenched fascination with shipwrecks – and its continuing risks relegating maritime cultural heritage to little more than an interesting footnote in the annals of both archaeology and tourism (see Chapter 2 in its entirety for a breakdown of this argument). Being able to draw on multiple theoretical models of inquiry from multiple disciplines is not an issue: it is the stakeholders' inability to agree on which set of theoretical models collectively represents the best current practise that keeps maritime cultural heritage too segmented to adequately define its own worth. An original, interdisciplinary model of inquiry – one that remains malleable to both site differences and, of course, scientific innovation – would allow archaeologists and tourism operators alike to build objectively comparable datasets detailing the economic and sociocultural values of a myriad of maritime cultural heritage sites. It would also help retain and contextualise the qualitative

nuances of individual connection and communal identity that so often accompany the existence of maritime cultural heritage material.

This thesis tests an original, interdisciplinary model of inquiry on six maritime cultural heritage tourism sites in South Australia divided equally between two of South Australia's most visited tourism regions: 'Adelaide' and the 'Fleurieu Peninsula'. The sites located in the 'Adelaide' region are the South Australian Maritime Museum, Clipper Ship *City of Adelaide*, and the Garden Island Shipwreck Graveyard (Figure 1-1, 1-2). The sites located in the 'Fleurieu Peninsula' region are Port Willunga, Rapid Bay, and ex-*HMAS Hobart.* This selection represents a variety of site types and includes an array of maritime cultural heritage assets. The researcher collected visitor data from all six sites over the course of six months, from October 2018 to March 2019, ensuring the collection of data over at least one summer holiday period. The data included quantitative components collected in the form of survey responses from a convenience sample of on-site visitors, and qualitative components collected from both short-answer survey sections from a convenience sample of on-site visitors and in-depth interviews taken from a snowball sample group (which included some survey respondents and other interested stakeholders). Apart from its methodological purview, the test was also designed to produce a snapshot of visitation data for each site that could then be collated into an 'average' maritime cultural heritage visitor profile for the state.

This chapter explores the mechanical details of the original, interdisciplinary model of inquiry designed by the researcher for collecting and analysing the relevant visitation data at maritime cultural heritage sites. Ultimately, its goal is to explain *how* this thesis intends to address its primary question: is it possible to gather meaningful and comparable visitation data across multiple maritime cultural heritage tourism sites using a single model of inquiry? Phrased more granularly: can a single model of inquiry be used across multiple maritime cultural heritage sites to determine and compare the reported economic *and* sociocultural value of each site (and if high experienced attachment correlates with reported pro-heritage and environmental behaviour)? While it reiterates some of the theoretical frameworks discussed in Chapter 2, it also explains why and how the researcher incorporated many of them into the methodological approaches described below. By doing so, it provides operational definitions and numerical demarcations for major relevant concepts (i.e., economic value and sociocultural value), and will also expound and attempt to justify the researcher's choice of sampling techniques and statistical analyses.

3.1 Selected Sites

Increasingly, scholars are recognising the potential importance of maritime cultural heritage sites to the tourism industry, with many researchers advocating the creation of tourism trails and other ventures (Beattie-Edwards 2013, McKinnon 2014, Terrell 2014, Underwood 2014, Firth 2015, Scott-Ireton and McKinnon 2015, McKinnon and Scott-Ireton 2017). Nevertheless, maritime cultural heritage tourism remains an understudied phenomenon and the industry itself is arguably underdeveloped. As discussed throughout Chapter 2, the value of South Australia's maritime cultural landscape is particularly understated as a result. Part of this thesis's goal is to address this situation, and to provide comparable, baseline data and average visitor 'profiles' across multiple South Australian maritime cultural heritage sites. The sites located in the 'Adelaide' region are the South Australian Maritime Museum, Clipper Ship *City of Adelaide*, and the Garden Island Shipwreck Graveyard. The sites located in the 'Fleurieu Peninsula' region are Port Willunga, Rapid Bay, and ex-*HMAS Hobart.*

During the selection process, due consideration was given to South Australia's current maritime cultural heritage tourism landscape and popular tourist destinations. O'Hare (1999), for example, notes Goolwa on the Fleurieu Peninsula and Robe in the southeast as two coastal towns that have been successful in developing a tourism industry around their maritime history. Unfortunately, the information surrounding visitor numbers and economic spend for both is extremely limited, regardless of the maritime focus. This is because both towns' tourism statistics are included within their respective council's greater regional data sets. Using this data therefore becomes problematic, as the City of Alexandrina Council, which includes Goolwa, presides over an area of 1,827 square kilometres with over 50 townships. The District Council of Robe is slightly smaller at 1,091 square kilometres and five townships, but the problem remains: the economic contributions of both Goolwa and Robe become lost and indistinguishable within a larger collection of economic council data. Other townships that can be considered key maritime cultural heritage tourism destinations are also affected by this issue. Their contribution to the tourism industry is either encompassed within a larger council area and 'lost' within the data, or, in cases like Glenelg, Adelaide, do not specifically market their maritime history (thus, the resulting tourism impacts are only considered within the boundary of 'direct' or 'on-site' spends).

Attempting to collect data that broadly represents a state-wide industry means it was therefore necessary to opt for narrower, more unique sites representative of an array of maritime cultural heritage assets (rather than larger townships). Variety controls, to a limited degree, the risk of

statistical confounds in the form of site-specific features that may unduly influence data collection and subsequent analysis. A site like ex-*HMAS Hobart*, for example, will have far fewer visitors than a site like Port Willunga (a public beach), so either, in isolation, will necessarily misrepresent the number of people engaging with maritime cultural heritage. Similarly, a site like the South Australian Maritime Museum is pay-to-enter, which means visitors' attributable spend will automatically be higher than a state-wide average due to the presence of entry fees. In fact, previous studies that consider the economic value of maritime cultural heritage sites often rely on pay-to-enter, monitored sites for data, possibly inflating the overall visitors' attributable spend at maritime cultural heritage sites in general (ABP Marine Environmental Research Ltd 2010, Baxter et al. 2011, Beattie-Edwards 2013). Thus, site environment and site management were among the primary considerations when selecting sites. In addition, and as discussed in Chapters 1 and 2, while current state-based legislation in South Australia focuses heavily on shipwrecks, incoming legislation is more definitionally inclusive, covering a wider range of archaeological sites (UNESCO 2001a, Australian Government 2018). Therefore, it is important to include sites with divergent maritime cultural heritage features within the study. This section provides an overview of each site, as well as a justification for each site's inclusion.

3.1.1 South Australian Maritime Museum

The South Australian Maritime Museum is situated on Lipson Street (Figure 3-1) within the Port Adelaide heritage district, approximately 15 kilometres northwest of Adelaide's CBD. The museum opened in 1986 during South Australia's Silver Jubilee (Paterson 2015, p. 7). It makes use of some of the oldest and most historic structures in Port Adelaide, all of which were renovated specifically for the museum and collectively form part of 'South Australia's most substantial and continuous group of colonial buildings' (Department of the Environment 2013 cited from Paterson 2015, p. 7). The History Trust of South Australia oversee the operational management of the South Australian Maritime Museum, and it is among South Australia's most successful cultural heritage institutions with over 80,000 annual visitors (Paterson 2015, p. 8). The South Australian Maritime Museum has three floors of permanent exhibitions that cover a variety of topics related to human interactions with the maritime environment, including global discovery, local issues of water pollution and animal protection, early European arrival to the South Australian colony, and South Australia's role in the Australian Navy (South Australian Maritime Museum n.d.). In addition to permanent exhibitions, the museum typically houses several temporary exhibitions on a rotational basis. These exhibitions range from smaller scale locally produced displays through to international showcases detailing collaboration between nations.

Figure 3-1 The South Australian Maritime Museum's location within Port Adelaide.

Throughout the course of this project, the South Australian Maritime Museum changed temporary exhibitions several times. As examples, some of the exhibitions the South Australian Maritime Museum has hosted include *The Art of Science* (June 2016 to December 2016), which showcased some of the 350 works from Nicolas Baudin's scientific expedition to Australia from 1800 to 1804. This expedition was the result of a collaborative effort between France and Australia and allowed many significant drawings, etchings, and manuscripts to return to the country for the first time since their creation (Fornasiero et al. 2016). *Leviathan* (December 2017 to November 2018) showcased the global whaling industry using a range of artefacts, documentation, and remains (Figure 3-2 and 3-3) (South Australian Maritime Museum 2017). In association with this exhibition, the museum also held an 'after hours' public lecture that explored how whalebone-based fashion – in particular, products like corsets – influenced beauty standards and the female 'form' (South Australian Maritime Museum 2018).

Figure 3-2 Entrance to the Leviathan *exhibition. Photograph by P. Straiton 2018.*

Figure 3-3 Display cases within the Leviathan *exhibition. Photograph by P. Straiton 2018.*

Lustre: Pearling and Australia (December 2018 to April 2019) displayed photographs, diving equipment, jewellery, shells, documents, and carvings to immerse visitors in the beauty and brutality of one of the country's oldest industries (Figure 3-4 and 3-5). It touched on the social, economic, and spiritual significance of pearls and mother of pearls to a range of communities and cultures – including those beyond Australia – involved with the 20,000 year old industry

(Western Australian Museum 2018, South Australian Maritime Museum 2019a). The exhibition was developed in partnership with the Western Australian Museum and Nayamba Buru Yawuru.

Figure 3-4 Entrance to the Lustre *exhibition at South Australian Maritime Museum. Photograph by P. Straiton 2019.*

Figure 3-5 Pearl jewellery on display at the Lustre *exhibition. Photograph by P. Straiton 2019.*

Additionally, the museum regularly holds a range of events for visitors, many of which are free-with-entry. During the school holidays, the museum holds pirate themed plays on the main level to engage children with maritime history and cultural heritage (South Australian Maritime

Museum 2019b). They also hold public lectures after closing, with some delivered by museum staff and others presented by guest lecturers.

The South Australian Maritime Museum was selected for this study for several reasons. The first is its location within the historic built heritage district of Port Adelaide. Both the museum and Port Adelaide are arguably the maritime heritage centre of South Australia, with most of the state's maritime heritage festivals and events held in the area. Second, the museum is one of the few maritime cultural heritage tourism locations that actively manages visitation. The museum is a pay-to-enter site, charging $6 for children, $9 for concession, $15 for adults and $34.50 for families (South Australian Maritime Museum 2020), and recording daily visitor numbers. Finally, of all the selected sites, the museum offers the most 'traditional' cultural heritage tourism experience, with a professionalised gift shop, café access, and metropolitan atmosphere.

3.1.2 Clipper Ship *City of Adelaide*

City of Adelaide is one of the oldest composite clipper ships in the world. It was built in Sunderland, England, and first launched in May 1864 to transport passengers and goods between Britain and Adelaide. Collectively, it made 23 return journeys from London and Plymouth to Adelaide between 1864 and 1887. Today, approximately a quarter of a million South Australians can trace their familial history back to the ship (Clipper Ship City of Adelaide n.d.). It currently resides in Port Adelaide, roughly 15 kilometres northwest of Adelaide's CBD (Figure 3-6). During its tenure, the ship had five different captains and brought members of some of the most influential European families to the South Australian colony, including the Goyders and Bickfords (Figure 3-7) (McNicol 2015). While the majority of the ship's journeys were uneventful, lasting a leisurely 76 to 104 days to Adelaide and 87 to 135 days to London, one incident in November 1877 saw the vessel lose its rudder. For seven days, the crew sailed it with a makeshift rudder until they limped into Port Adelaide where a replacement component was commissioned from eucalypt timber. The replacement rudder has remained with the vessel and is on display in Port Adelaide (McNicol 2015, pp. 12–13).

By the 1880s, clipper ships were being replaced by larger, faster vessels. Consequently, upon *City of Adelaide's* return to London in February 1887, the vessel was laid up and later sold to Dover coal merchant Charles Mowell. After being resurveyed, remodelled, and re-rigged as a barque, the vessel spent time as a collier operating between Newcastle-upon-Tyne and Dover (McNicol 2015, p. 17, Roberts 2016, pp. 17–22). This was short lived, however, as the vessel was promptly sold to Belfast-based timber merchants in August 1888. After further

remodelling, the vessel made four trips per year from the United Kingdom to the Americas in service of the North Atlantic timber trade (McNicol 2015, p. 17, Roberts 2016, pp. 22–34). *City of Adelaide* operated in this capacity for six years, delivering its last load of timber from Miramichi, Canada, to Glasgow in 1893.

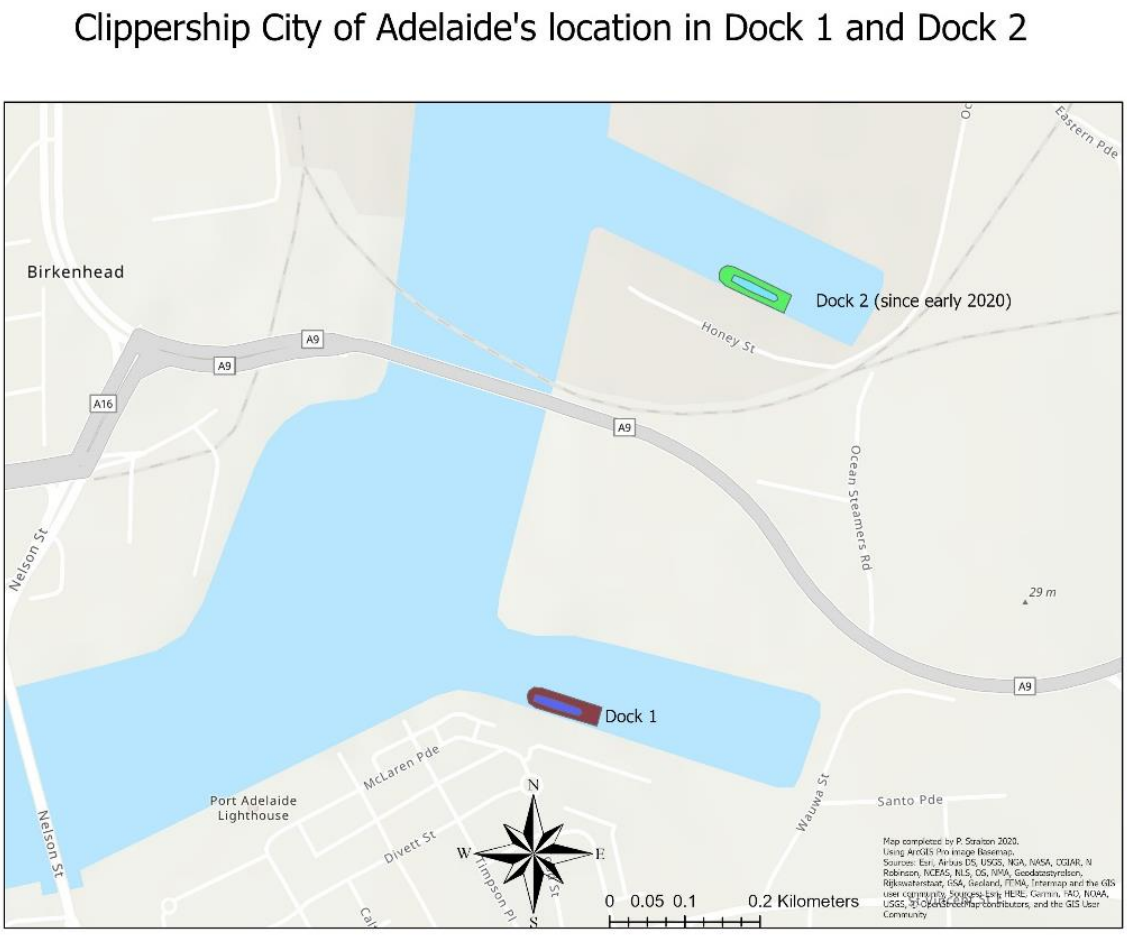

Figure 3-6 Locational image of City of Adelaide *Clipper Ship in Port Adelaide, both before 2020 (in Dock 1) and as of 2020 (in Dock 2).*

During the early 1890s, infectious epidemics strained the medical systems in Europe, including Britain. Outbreaks of smallpox, typhoid, and scarlet fever caused many health facilities to search for alternative quarantine solutions, for which aging ships proved useful (McNicol 2015, pp. 17–20, Roberts 2016, pp. 35–79). In September 1893, *City of Adelaide* was sold to the Borough of Southampton and was converted into a floating isolation hospital. This required converting the top decks into quarters for medical staff, installing more windows, painting and lining the interior and exterior of the vessel to help cleaning, and outfitting the entire vessel with medical equipment (Roberts 2016, p. 45). *City of Adelaide* received its first patient on 22 May 1895 (a 24-year-old man with smallpox) and remained a floating quarantine hospital for

30 years (Roberts 2016, pp. 52–82). At the end of this period, the ship was towed from Southampton to Irvine and was converted into a naval gunnery training vessel. It was renamed *HMS Carrick* in May 1925 and operated in this capacity until the start of World War II. In 1940, the vessel was taken over by the Royal Navy Volunteer Reserves and was outfitted with six-inch guns and 200 beds for naval volunteers. Despite training and housing hundreds of naval recruits and being used in the blitz defence of the United Kingdom[10], the vessel was decommissioned and marked for deconstruction in 1947.

Figure 3-7 Signage outside of the clipper ship's gift shop. Photograph by P. Straiton 2018.

Remarkably, however, the vessel obtained another reprieve. After its decommission, the admiralty presented the vessel to the newly formed Royal Navy Volunteer Reserves Club in Scotland, and, with yet another round of remodelling and outfitting, the vessel became their official floating clubhouse (McNicol 2015, p. 21, Roberts 2016, pp. 112–136). *HMS Carrick* survived as a clubhouse for over 30 years and through two sinking events (after both of which the ship was drained and re-floated) (Roberts 2016, pp. 125, 133). However, as the club dwindled in size, the maintenance costs for the vessel became unfeasible, and by March 1990, the Royal Navy Volunteer Reserves Club sold it on to the Clyde Ship Trust for £1. The initial plan was to repair and restore the vessel, however, it sank again in 1991, prompting the Scottish Maritime Museum to step in. Conservation work lasted until financial resources were

[10] Historical sources cite the Greenock Blitz (Roberts 2016, p. 100), the Glasgow Blitz (Clipper Ship 'City of Adelaide' LTD 2012, p. 21), and the Clydeside Blitz ('Clipper that protected city is to be scrapped' 2007).

withdrawn in 1996 (McNicol 2015, p. 24), from which point on the foregrounding of economic rationalisation in British – and indeed, global – politics made the ongoing conservation of the vessel financially untenable for many. In May 2000, the museum's trustees applied for permission to demolish the vessel, an action that angered the general public.

Carrick fell into a 'tug-of-war' battle between two community groups fighting for its survival (Underwood 2014, p. 33). One group from Scotland wanted to see the vessel restored to become the floating 'centrepiece' for a maritime museum in Sunderland. Another group, this time from Australia, wanted to transport it back to Adelaide, South Australia. In 2013, the ship was transferred to the Adelaide group, who renamed it *City of Adelaide* and arranged to have it transported back to Port Adelaide (Underwood 2014, p. 33). Upon arriving back in Port Adelaide, the vessel was placed in Dock 1 alongside plans to transform Dock 2 into a 'maritime precinct'. This redevelopment is intended to promote the state's unique maritime heritage, of which *City of Adelaide* is a vital component (Renewal SA 2017) (Figure 3-8).

Figure 3-8 City of Adelaide *undergoing conservation in Dock 1. Photograph by P. Straiton 2018.*

The clipper ship was selected for this study because it is a relatively new maritime cultural heritage tourism site, unequivocally representative of the public's fascination with shipwrecks, and actively managed regarding its maintenance, entry, and visitor engagement. The volunteers who form the Adelaide advocacy group and who now run the site have offered guided and self-guided tours aboard the vessel since 2019, priced at $15 for singles and $20 for couples (children are free-to-enter). They also actively track tour numbers and commenced tracking casual engagements in 2018. The clipper ship also provides visitors with a gift shop. Like the South Australian Maritime Museum, this site represents an immersive museum experience, allowing visitors to explore various stages of the vessel's life, albeit in a pantomimed and sanitised format.

3.1.3 Garden Island Shipwreck Graveyard

Garden Island is a small island in the Port River approximately 20 kilometres northwest of Adelaide's CBD. The island is surround by the Angas Inlet (north), Eastern Passage (east), and North Arm (south) (Figure 3-9), all of which have played important roles in South Australia's colonial history (Richards 1997b, pp. 25–28). Garden Island was originally designated Crown land from the early days of the colony (Richards 1997b, p. 28), and has been used differently throughout its history. The island's first public road opened in 1968, it had 130 acres designated as landfill from 1972 to 2000, and has been the subject of multiple commercial development proposals, though most have never come to fruition (Richards 1997b, p. 29). Today, the island provides access to the Torrens Island power station and is principally used as a launching site for recreational boating activities in the adjoining bodies of water, including the Port River and Barker Inlet.

The shipwreck graveyard is on the southern side of the island, in North Arm, and has undergone several archaeological surveys (Cormack 1978, Brown 1989a, 1989b, 1989c, Samuels 1989, Loney 1993, Richards 1997b). Early studies focused on identifying the individual shipwrecks, however, there are a number of discrepancies between studies attributable to different methodological approaches. As an example, Cormack's (1978) study identified the presence of 14 individual vessels, while Richards' (1997b) study identified 24 individual vessels.

Abandonment of vessels at the Garden Island shipwreck graveyard principally occurred over five phases (Table 3-1) between 1908 and 1945. Peak numbers of vessel abandonment occurred in the early 1930s when the island was designated the 'official' and 'established' disposal ground for large ships (Richards 1997b, pp. 87–88). From 1940 to 1945, the site

experienced significantly less use, probably because of the high need for scrap materials during World War II and the reassessment of vessel disposal techniques triggered by the illegal dumping of vessels at the time (Richards 1997b, p. 88).

Figure 3-9 Locational image of Garden Island from Port Adelaide.

Table 3-1 Phases and vessels of abandonment that make up the shipwreck graveyard. Adapted from Richards 1997.

Phase type (years)	Vessels abandoned during phase
Phase 1 (1908–1913)	*Sunbeam, Seminole, Enterprise*
Undetermined Phase (1913–1925)	*Iron Hopper Barge, Wooden Barge*
Phase 2 (1925–1927)	*Killarney, Lady Daly, Sarnia, Gem, Iron Pontoon (1)*
Phase 3 (1930–1932)	*Stanley, Mangana, Juno, Grace Darling, Flinders, Dorothy H. Stirling, Iron Pontoon (3)*
Special Case	*Moe or Ullock*
Phase 4 (1935–1937)	*Glaucus, Garthneill, Hopper Barge (2), Iron Pontoon*
Phase 5 (1941–1945)	*Thomas and Annie, Santiago*

The remains of all vessels in the Garden Island shipwreck graveyard are protected under the South Australian *Historic Shipwrecks Act 1981,* and their protection and management are overseen by Heritage South Australia. The graveyard also contains one of the state's official 'shipwreck trails', created in 2001 by the maritime program in Department of Environment and Heritage (now Department of Environment and Water). The trail initially existed both online and on-site, with two signs at a nearby boat ramp and three in North Arm next to the main accumulation of vessels (Figure 3-10) (Heritage South Australia 2001, p. 4, Department of Environment and Heritage 2007), and was developed to communicate both the history of the graveyard and the individual stories of some of the ships. Unfortunately, before the commencement of this study in 2017, the on-site trail signs were removed and there appears to be no plans to redevelop or reinstall them. Consequently, visitors have no on-site references to either the graveyard or the individual ships.

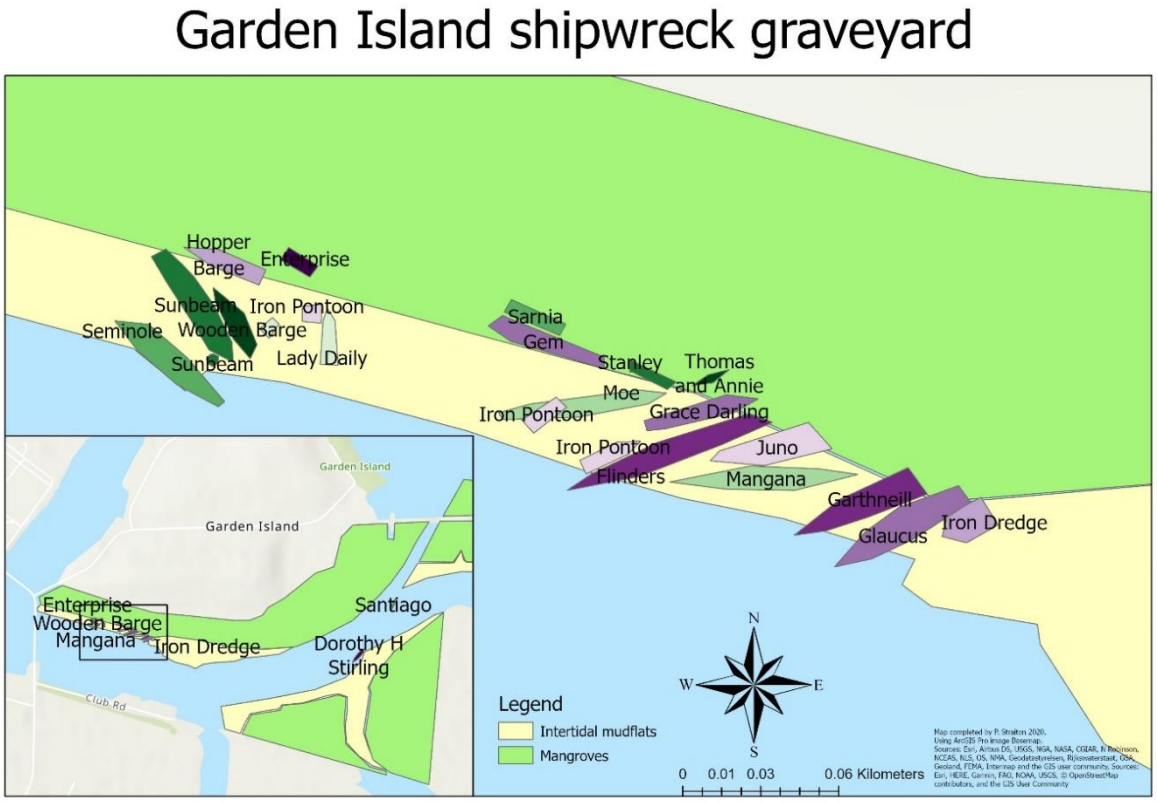

Figure 3-10 Main accumulation of shipwrecks with the location of Santiago *and* Dorothy H Stirling *in inset.*

Visitors to the main section of the graveyard frequently visit via the water – either by kayak, canoe, or boat – but it can also be accessed by foot though the mangroves. Adventure Kayaking SA offers visitors kayaking tours to see both the shipwrecks and the Port River dolphins (Figure 3-11). Additionally, Adventure Kayaking SA hires their kayaks out, along with maps and informational pamphlets concerning the graveyard and nearby river inlets. The

Garden Island shipwreck graveyard also provides a significant number of motor boating enthusiasts with an aesthetic backdrop for the Adelaide Speedboat Club's annual and biannual races (Figure 3-12).

Figure 3-11 Kayakers visiting Santiago. *Photograph by P. Straiton 2019.*

Figure 3-12 Boat racing in the Adelaide Speedboat Club with the graveyard on the other shore. Photograph by P. Straiton 2019.

The Garden Island shipwreck graveyard was selected for this study because it is one of the nine established maritime cultural heritage tourism trails in South Australia. It is also one of the few shipwreck locations in the state that visitors can experience *in situ* without needing a

diving qualification. Furthermore, the Garden Island shipwreck graveyard has no on-site management, and is encapsulated within a series of unique environmental attractions (the mangrove and wetland areas). The site is free-to-access and visitor numbers are not recorded.

3.1.4 Port Willunga

Port Willunga is a small coastal suburb located approximately 45 kilometres southwest of Adelaide's CBD (Figure 1-2) The area is rich with maritime cultural heritage material, with numerous sites scattered along the shore (Figure 3-13). Local Indigenous populations are believed to have camped in Port Willunga during summer months (Hemming 1985, pp. 24–26) and the area forms part of the Tjilbruki Dreaming, a complex, multi-layered creation story explaining law and human relations (City of Marion n.d.). Tjilbruki was an ancestral being of the *Kaurna* people, whom, being a man of the law, had to determine if his nephew, Kulultuwi had been killed lawfully. Tjilbruki decided that the death was unlawful, and after avenging the crime, he carried Kulultuwi's body for burial in a perki (cave) at Patarno (Rapid Bay). Along the journey, he stopped to rest at several locations and wept. His luki (tears) formed freshwater springs along the coast, including at Ruwarung (Port Willunga) (City of Marion n.d.).

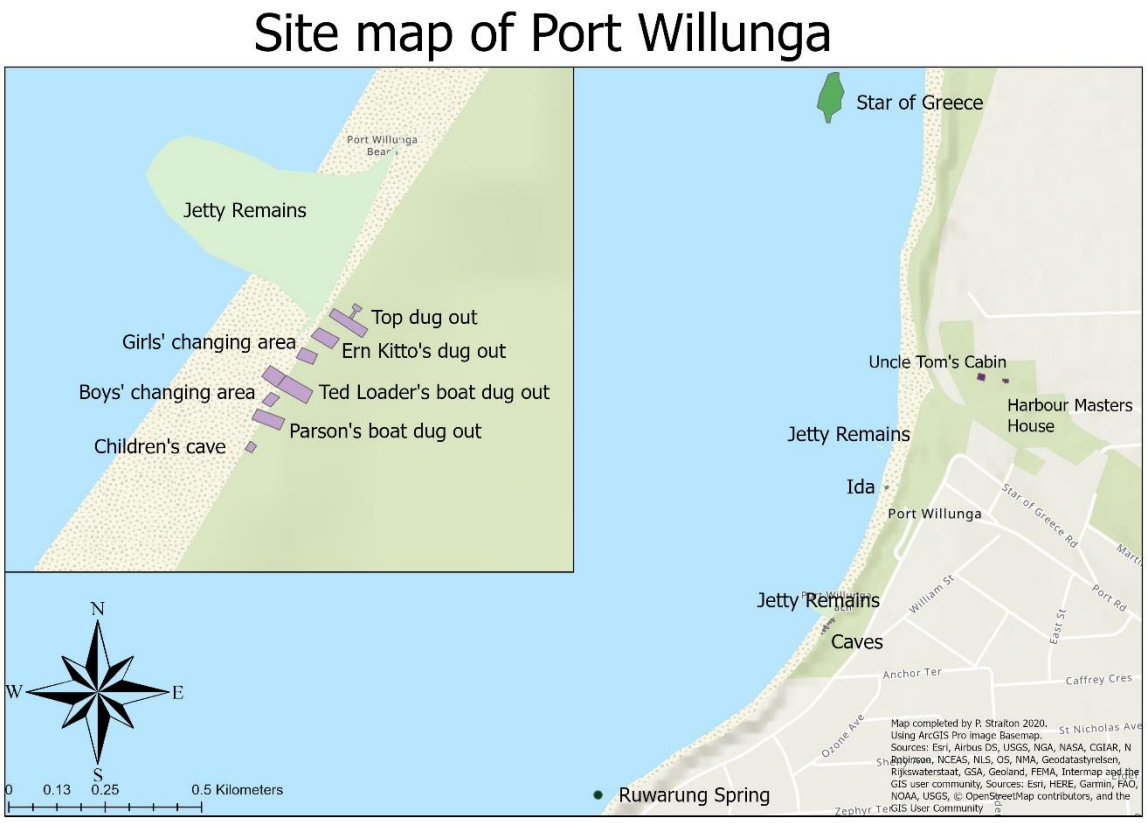

Figure 3-13 Maritime cultural heritage tourism sites along the Port Willunga foreshore, with inset of boat caves and large jetty remains.

During the colonial period, the inland township of Willunga was established to aid travellers making the journey from Adelaide to Encounter Bay and Victor Harbor (City of Onkaparinga 2010). It quickly became a prosperous farming district, with produce regularly being transported back to Adelaide. In September 1850, the settlers in Willunga met to discuss the establishment of a convenient location from which to ship their goods, which would later become known as Port Willunga (‘Port Willunga’ 1850, p. 3).

By the summer of 1850, Port Willunga was still developing a planned set of 20 to 30 houses, but only a few were fully constructed and occupied (Yelland 1983, p. 25). Discussions surrounding the erection of a jetty at Port Willunga suggested that the construction would be similar to an American log wharf and it could be built in stages as money became available (‘Port Willunga’ 1850, p. 3). This jetty was the first for the foreshore and was initially 53 metres long upon its completion in 1853 (but would be extended to 145 metres in 1857) (Collins 2010, p. 180, 2014, p. 30).

Figure 3-14 The remains of the first jetty, exposed. Photograph by P. Straiton 2018.

Unable to continue to meet the demands of local shipping, the jetty was eventually replaced with a second jetty 186 metres in length in 1868 (Collins 2010, p. 180, 2014, p. 30). By 1892, the slate trade which helped build the township’s economy had declined considerably, and by 1900 the second jetty was disused. Severe storms in 1915 damaged the jetty, destroying its

seaward section, and what remained was later dismantled by the army during World War II (Burns 1999, pp. 25–27, Collins 2010, p. 180, 2014, p. 30).

Figure 3-15 The remains of the second jetty. Photograph by P. Straiton 2019.

Today, little exists of either jetty. Pylon stumps belonging to the older structure are intermittently exposed on the foreshore (Figure 3-14), while several large pylons belonging to the younger structure are permanently visible (Figure 3-15). The remains of the second jetty are iconic not only to the local community – as evidenced by its inclusion on many local logos and artworks (Burns 1999) – but also to South Australia by its inclusion on numerous SATC campaigns and websites (South Australian Tourism Commission (SATC) 2020a).

Six vessels are known to have wrecked at Port Willunga between 1855 and 1888. The two most prolific ships are *Ida* and *Star of Greece* (after which the local beachside café is named). Both vessels have been the subject of archaeological investigations principally undertaken by Flinders University researchers (Ash 2007, Hano 2018). *Ida* was a 175-ton timber American brig *en route* from Port Wakefield, South Australia, to Sydney, New South Wales, that anchored at Port Willunga to shelter from inclement weather (Burns 1999, p. 53, Hano 2018, p. 19). *Ida* was pushed ashore on 15 January 1857 and beached. Inspections the following

day revealed that the 'back' of the vessel was broken and *Ida* was no longer seaworthy (Hano 2018, p. 19). The ship has remained on the beach since that day and is intermittently exposed, principally during winter months (Smith 1981, Jeffery and Arnott 1995, Hano 2018). Several attempts have been made to record what remains of the vessel to varying degrees and success (Smith 1981, Jeffery and Arnott 1995, Ash 2007, Hano 2018). The latest archaeological excavation exposed nearly 2 metres of frame timbers and identified previously unknown planking timbers (Hano 2018, p. 41) (Figure 3-16).

Figure 3-16 Ida *excavations in 2017 for Hano's Master's thesis. Photograph by P. Straiton 2017.*

Star of Greece was a 1,227-ton vessel built in Belfast in 1868 and is the most infamous shipwreck case at Port Willunga (Christopher 1990, p. 154, Ash 2007, p. 35). The vessel journeyed primarily between London, England, and Calcutta, India, making an occasional trip to Sydney and Adelaide, Australia, via New Zealand (Sexton 1982, p. 8, Ash 2007, p. 35). On the morning of Friday, 13 July 1888, *Star of Greece* wrecked 200 metres off the Port Willunga coast. Eighteen men lost their lives (Ash 2007:36; South Australian Register 1888:1) in the event, and several bodies washed ashore (South Australian Register 1888, Ash 2007, p. 36). Annual '*Star of Greece* heritage walks' held on the weekend of the wrecking event, as well as special events held in 1988 for the wreck's 100th anniversary and again in 2018 for its 130th anniversary, memorialise the tragedy. Events for the 130th anniversary included an exhibition at the Aldinga Public Library of *Star of Greece* artefacts from South Australian Maritime Museum and the National Trust of Port Willunga, alongside paintings from the South Australian Art Gallery and artefacts from private collections (Figure 3-17). The 130th

anniversary event also included a public lecture by the author of '*Star of Greece:* for profit and glory', Paul Simpson, a dinner at the Star of Greece Café, additional heritage walks, a wreath laying ceremony, and a theatrical reading of the inquest. Over 1,150 people collectively attended the various events (Straiton and Stark 2018).

Figure 3-17 Star of Greece *display at Aldinga Library, created from private and public collections. Photograph by P. Straiton 2018.*

The Port Willunga foreshore is also home to seven dugout fisher's caves. Local residents – principally coordinated by the How family – dug out the caves with pickaxes and shovels from the limestone cliffs that surround the foreshore between 1918 and the late 1940s (Figure 3-18). The first and second caves were excavated in 1918, the third in 1920, and the remaining four in the 1940s (Burns 1999, pp. 9–23, Ash 2007, pp. 79–83). The caves were principally used for commercial fishing purposes, and the How family believed themselves to be one of the few families to make a living from commercially fishing in this area (Afford 1936, p. 9, Stone 1947, p. 11, Burns 1999, pp. 9–23). The caves themselves served as storage for fishing boats and paraphernalia, including boat winches and nets, during the spring, summer, and autumn months they were easily accessible (Ash 2005:79–83). Though they are no longer used commercially, they still provide shelter for recreational beach goers and, occasionally, exhausted researchers.

Figure 3-18 Dug out boat caves. Photograph by P. Straiton 2020.

Additionally, Port Willunga – as with many colonial port towns – has numerous buildings connected to the maritime industry. This includes Uncle Tom's Cabin and the Harbour Master's Cottage. Uncle Tom's Cabin was built by the Martin family between 1846 and 1848 (Burns 1999, p. 55, Ash 2007, p. 31) and was designed as a two-storey hotel to service the ever-growing seaport. After 1862, it became a private residence (Hoad 1999, Ash 2007, p. 27), but remained a prominent feature in Port Willunga's maritime cultural heritage landscape. Sadly, the structure burnt down in the 1960s, though it became the subject of multiple archaeological excavations throughout the 1990s. The Harbour Master's Cottage was built next to, and inland from, Uncle Tom's Cabin sometime before 1887 (Ash 2007, p. 25). The cottage was named in honour of Thomas Martin Jr, who lived in the house and was harbourmaster from December 1883 to September 1885. Thomas Martin Jr was locally renowned for his role in the rescue of survivors from the *Star of Greece*, despite Port Willunga having no official harbourmaster at the time of the wreck. The cottage was inhabited on and off until it was finally abandoned in 1966 (Ash 2007, p. 25). Today, the cottage is a notable landmark, with large sections of walls still intact (Figure 3-19). Frequent efforts have been made by the local council to slow the deterioration of the remains, which argues that they are of great social, scientific, and economic interest to the area.

Figure 3-19 Harbour Master's House. Photograph by P. Straiton 2019.

Port Willunga was selected for this study because it is a semi-urban, semi-regional, free-to-enter beachfront, representing a variety of site types in and of itself. While the shipwrecks are protected under the South Australian *Historic Shipwrecks Act 1981,* they are not actively monitored, and neither have a protection zone. Consequently, visitor numbers to the site and specifically the cultural heritage features therein are generally unrecorded. As the site is an open foreshore environment, people can access it via water or land, however, accessing most cultural heritage features requires traversing soft sand, and/or a riverbed. Ultimately, this site represents a multilayered, multifeatured site showcasing a plethora of human interactions with the marine environment.

3.1.5 Ex-*HMAS Hobart*

The ex-*HMAS Hobart* is a decommissioned Royal Australian Navy vessel. Deliberately scuttled and designated an artificial reef, the vessel is now a popular diving location off the Fleurieu Peninsula coast. The wreck resides in 30 metres of water roughly 9 kilometres west-northwest from Marina St. Vincent (colloquially known as Wirrina Cove Marina) and 89 kilometres south of Adelaide CBD (Figure 3-20). The ex-*HMAS Hobart* was declared a protected shipwreck under the South Australian *Historic Shipwrecks Act 1981* and has a 550-metre protection radius that prohibits all human activity without a permit issued by Heritage South Australia in the Department of Environment and Water. *HMAS Hobart* was originally

one of three modified Charles F Adams class guided missile destroyers. It was laid down (laying of the keel/commencement of construction) in 1962 by a Michigan, US, company and launched two years later in 1964 (Grey 1998, p. 141). *HMAS Hobart* was part of the Royal Australian Navy's Perth-class vessels whose primary role was air defence (Royal Australian Navy 2018), and the ship first arrived in its home berth of Sydney in September 1966. It remained in military service for 34 years and was deployed to Vietnam three times: the first tour from March to September 1967, the second tour from March to October 1968, and its final tour from March to October 1970 (Royal Australian Navy 2018). During these deployments, *HMAS Hobart* was part of the US Seventh Fleet and took part in Operation Sea Dragon, which was designed to interrupt oceanic lines of communication between North and South Vietnam (Grey 1998, Royal Australian Navy 2018).

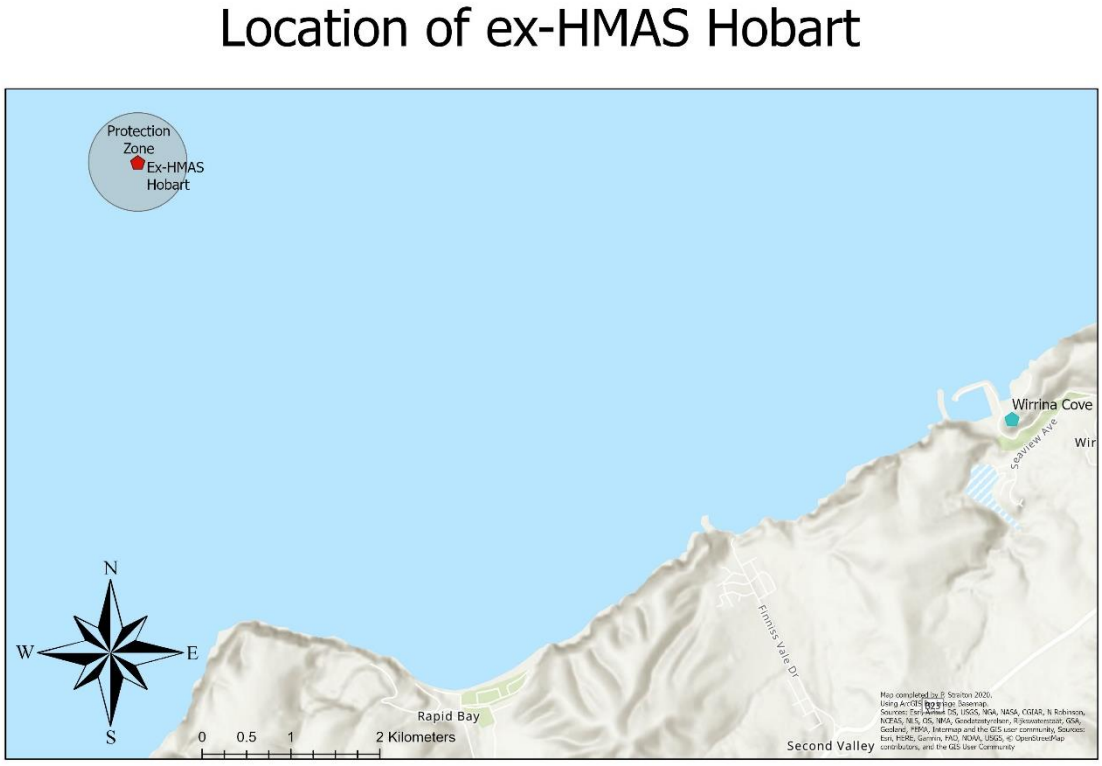

Figure 3-20 Location of ex-HMAS Hobart *with its protection zone in relation to Wirrina Cove, the main boat launch access to the site.*

Throughout its 34 year career, *HMAS Hobart* only lost two sailors, and this was during a friendly fire incident in June 1968 (Grey 1998, pp. 178–180, Royal Australian Navy 2018). It is also the third Royal Australian Navy vessel to obtain the distinction of steaming one million nautical miles (Royal Australian Navy 2018). After the vessel's decommission, it was actively sought after by the Fleurieu Artificial Reef Society Incorporated to be scuttled off the Fleurieu coast as a dive tourism destination (Fleurieu Artifical Reef Society Inc. 2000). The group's

business report argued that scuttling ex-navy vessels to create artificial reefs had proven popular in other states and overseas, citing *HMAS Swan* and *HMAS Perth* in Western Australia, *Tui* in New Zealand, and five vessels in Canada as examples. The report also claimed that scuttling the ship off the Fleurieu coast would make the ex-*HMAS Hobart* site one of the closest ex-naval artificial reefs to a major capital city in the country. Among other things, the report also lauded the site's distance from shipping boundaries, generally good visibility, minimal current (although when currents are present they are strong, so diving is typically limited to 'dodge' tides), and relative uniqueness (Fleurieu Artifical Reef Society Inc. 2000, p. 6). The ex-*HMAS Hobart* was scuttled in 2002.

Ex-HMAS Hobart was selected for this study because it is one of few deep shipwreck dive sites in South Australia. The site is free-to-enter (though it requires a permit) but is limited to those who possess an Advanced Open Water Certificate or equivalent and training to dive to 30 metres. Despite being in a protected zone, visitor numbers are largely unmonitored beyond the number of permits issued – assuming, of course, that everyone who visits the site *has* applied for a permit. To further complicate the issue, permits provide unlimited dive access to a single individual for a full 12-month period, making it impossible to determine visitor numbers through approved permits beyond the number of unique individuals permitted to dive. Like the South Australian Maritime Museum, the site represents a more 'traditional' example of maritime cultural heritage tourism: a deep underwater shipwreck site accessible only to divers and shrouded in an aura of romanticised mystery.

3.1.6 Rapid Bay

Rapid Bay is a small coastal town approximately 100 kilometres southwest of Adelaide's CBD (Figure 1-2). According to the Australian Bureau of Statistics, 16 people live in Rapid Bay permanently (2018). The area was named after Colonel Light's ship *Rapid*, and the area was described as a 'little paradise' in September 1836 (Whitford 1974, p. 52), a sentiment that still resonates with modern South Australians (Pedler 2015). After the establishment of the colonial capital in Adelaide, vessels continued to visit Rapid Bay on their journey to and from the city's port. Furthermore, it is argued that South Australia's first European man and woman – John Rapid Hoare in 1836 and Fanny Lipson Finniss in 1837 – to be born on mainland South Australia were born in Rapid Bay ('The firstborn South Australian male: To the editor' 1901, p. 11, 'Early days of Rapid Bay: The first residents' 1928, p. 7, Beare 1901, p. 29). Today, Rapid Bay is a popular tourism destination with people visiting in the summer months to go camping, diving, fishing, and swimming (Figure 3-21).

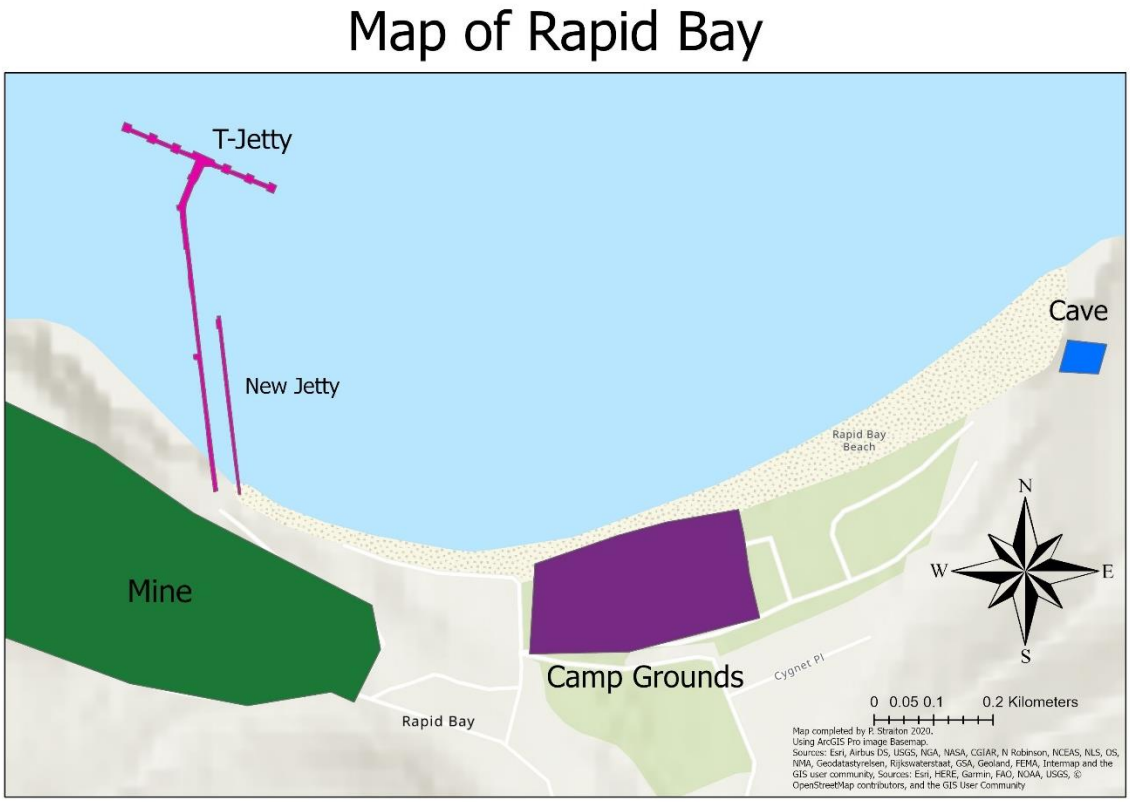

Figure 3-21 Rapid Bay, highlighting the T-Jetty, new jetty, and the nearby campground.

After colonisation, 27,000 acres of land in the vicinity of Rapid Bay were surveyed for sale in May 1838 (Williams 2009, p. 29). As with other Fleurieu Peninsula townships, Rapid Bay had a prosperous primary industry (Williams 2009, Straiton 2015), so much so that discussions for a jetty first began in 1854 ('Shipping Intelligence' 1854, p. 3) for the purposes of shipping farming goods and stock to Adelaide. Because of the area's significant limestone deposits, Rapid Bay drew the interest of the Broken Hill Proprietary Company (BHP) in the 1920s (Whitford 1974, p. 53, Williams 2009, p. 186, Straiton et al. 2018), and mining operations officially commenced in the 1930s and early 1940s (The Advertiser 1941, p. 12, Recorder 1942, p. 3, Whitford 1974, p. 53, Friends of Rapid Bay Jetty 2006, Williams 2009, p. 186). It was BHP's industrial needs that led to the jetty's extension into its now iconic 'T' shape (Figure 3-22) (Recorder 1942, p. 3, Ford 2000, p. 80, Williams 2009, pp. 186–189). After its extension, the jetty housed five portable 48–inch conveyors that transported limestone from the nearby mine to the cargo ships, and could load a ship at a rate of 1,200 tons of limestone per hour (Recorder 1942, p. 3).

Figure 3-22 Rapid Bay limestone mine buildings as seen from the jetty-adjacent carpark. Photograph P. Straiton 2019.

BHP ceased mining operations in 1981 and Adelaide Brighton Cement Limited (ABC) took over the site in 1982 (Williams 2009, p. 189). At this time, ownership of the jetty transferred to the South Australian Government, who then leased the jetty back to ABC. It remained in commercial use until 1991 (Ford 2000, p. 110, Friends of Rapid Bay Jetty 2006, Williams 2009, p. 189). The jetty fell into disuse, and by 1993, the Department of Marine and Harbours intended to close the jetty due to dangerous conditions[11]. However, in 1994, ABC offered to finance and oversee $180,000 of repairs and improvements to make it safe for recreational use (Ford 2000, p. 110). ABC removed the conveyors in 1996, but by 1997, work had ceased and the jetty was barricaded, preventing the public from using it (Ford 2000, p. 110). The jetty was again deemed unsafe due to considerable storm damage in 2003, and by 2005, its continuance was in question (Department for Transport Energy and Infrastructure 2008, pp. 3–4). Ultimately, a new jetty was proposed for the public that included protections for local marine life (Rann and Conlon 2006). The structure was completed and officially opened to the public in 2009 (Figure 3-23), allowing people to dive and experience the marine life at Rapid Bay (including its globally unique leafy sea dragons). Unfortunately, in early 2022 an additional section of this jetty collapsed, sparking the closure of the T-jetty as a diving location. Due to its proximity to Adelaide, its accessibility, and overall dive experience, Rapid Bay has consistently appeared in the top 25 dive sites and top 10 shore diving sites in Australia (Figure 3-24) (Davidson and Brook 2005, p. 3, van der Marel 2014).

[11] The principal issue with the jetty was that it lacked any kind of safety barrier for recreational use.

Figure 3-23 The 'new' jetty alongside the T-jetty at Rapid Bay. Photograph by P. Straiton 2019.

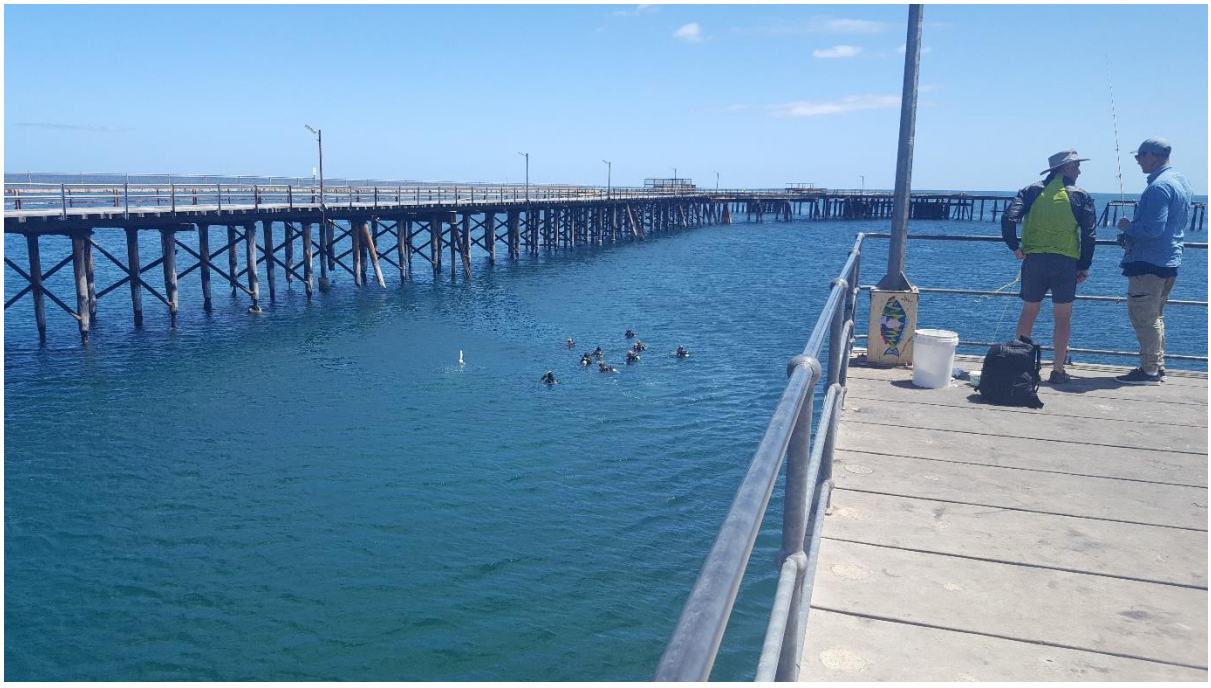

Figure 3-24 Fishers on the new jetty and divers in the water between the new jetty and the T-jetty. Photograph by P. Straiton 2019.

Figure 3-25 Rapid Bay campgrounds with the cave cliffs in the background. Photograph by P. Straiton 2019.

In conjunction with the new jetty, Rapid Bay also has an active campground that is popular during the summer period for its proximity to the beach (campers can literally pitch their tents or park their caravans on the edge of the sand) (Figure 3-25). Furthermore, due to Rapid Bay's location, the area has limited mobile phone reception, allowing visitors to feel 'unplugged' from the modern world. The campground's aesthetic reflects this, remaining an unpowered site with no shower blocks and a relatively inexpensive entry fee ($9 per night per adult and $4.50 per child in 2019). An impact report from 2005 claims that the Rapid Bay jetty and campground brings an estimated $215,000 – $715,000 to the area annually (Davidson and Brook 2005, pp. 3–4). These numbers, however, only capture visitors who stay at the campground and exclude the contributions of those who undertake day trips to the jetty for fishing or diving. Notably the campground did close for a significant period of time in 2020 due to COVID-19.

Rapid Bay was selected for this study because it represents a reasonably remote maritime cultural heritage tourism destination that is also a unique blend of free-to-enter and pay-to-enter. While the cultural heritage elements of Rapid Bay are underplayed with limited signage or information available on-site, visitors are nonetheless constantly surrounded by the heritage elements. The site is also renowned for its leafy sea dragons, which attract many divers each

year to the T-jetty keen to seek out these elusive animals (Figure 3-26). Access to the campgrounds and jetty is relatively easy for most visitors, although access to the water is limited to those who can traverse soft sand or staircases.

Figure 3-26 A Leafy Sea Dragon at Rapid Bay. Photograph by P. Straiton 2013.

3.2 An Actionable Model of Inquiry

This thesis's model of inquiry is designed to act as a broadly consistent data gathering tool to help establish comparable, baseline datasets specifically for maritime archaeology and the maritime cultural heritage tourism industry in South Australia. Its goal is to produce *actionable data* that can be used as *quantifiable* evidence of a maritime cultural heritage site's economic and sociocultural value. The data and the researcher's method of interpretation is also designed to assist academics and operators target their site-related interpretation and promotion tactics more effectively. While it seeks to combine a semi-standardisable formula to the collection of economic and sociocultural data, a major disadvantage of this approach that warrants immediate identification is the potential loss of intangible information (i.e., the personal stories, histories, and connections some people experience to cultural heritage material). To combat this, the researcher sought methods of incorporating broad qualitative information (gathered through the use of surveys and interviews) under a taxonomic version of 'place attachment', which was then compared to behavioural metrics to convert the intangible (at least partially) into the tangible.

In particular, the model should allow archaeological practitioners and tourism operators to determine the economic and sociocultural value of multiple sites in a methodologically equitable fashion. The aim of testing the method is to establish the feasibility of interdisciplinary approaches to collecting data at maritime cultural heritage tourism sites to benefit both the industry and its associated academic disciplines, including those interested in the study and conservation of cultural heritage material (i.e., anthropology and archaeology). The six selected sites, all of which are discussed extensively in Section 3.1, represent a diverse snapshot of South Australia's maritime cultural heritage landscape. All are arguably understudied and underrepresented at the state and national level, often leading to conflicting data regarding their perceived economic and sociocultural value. This creates uncertainty regarding the manner in which individuals and communities can and do experience these sites, how they develop connections to them, and how much value they ultimately place in such connections and experiences. Thus, the use of both qualitative and quantitative data collection methods not only ensures that data useful to all potential stakeholders is collected, but also attempts to supply stakeholders with holistic answers to such questions.

Both the physical nature of maritime cultural heritage sites and the phenomenological nature of the connections individuals experience with those sites means that any standardised, interdisciplinary approach to data collection will still require a degree of malleability. A single

approach applied to a range of sites may allow for cross-site comparisons – and may even allow the industry to build consistent, baseline datasets – but nothing is useful if it ignores the unique variation inherent to *all* cultural heritage material. Since this thesis effectively constitutes a baseline pilot study, no permutations were used: the data collection and analysis methods were identical for all sites. Of course, it remains fundamental that whatever semi-standardisable model is deployed produces scientifically meaningful data that is ultimately both useful and transparent to the majority of stakeholders, whether they be archaeologists, heritage managers, tourism operators, politicians, academics, community leaders, or members of the general public.

Though this thesis is deploying an original model of inquiry, many of its methodological approaches to data collection are drawn from previous archaeological or tourism studies conducted within Australia. Another major reason any approach to maritime cultural heritage data collection needs to be malleable is to take ethnographic parameters into consideration. Ethnographic research is often summarised as 'iterative-inductive', which emphasises a researcher's need to limit their preconceptions and biases regarding other cultures. This description encourages the constant review of methods while allowing research to evolve throughout the course of a study with the goal of providing a detailed and sensitive account of the studied social group (O'Reilly 2009, p. 3, Paterson 2015, p. 58). Ethnographic studies tend to be small-scale, however, and focus primarily on qualitative data collected through minimally intrusive methods (O'Reilly 2009, p. 3, Fetterman 2010, pp. 33–68, Bryman 2012, pp. 432–465). As part of its qualitative data collection, the proposed methodology includes the adaptation of traditional ethnographic research methods to ensure both the quantitative data is qualitatively contextualised and vice versa, making the data more applicable across social science disciplines (i.e. community archaeology, anthropology, tourism, sociology, and heritage studies) (Hamilakis and Anagnostopoulos 2009, O'Reilly 2009, Hamilakis 2011, He 2013, Ramkissoon et al. 2013a, Politis 2014, Sorset 2014, Paterson 2015). Succinctly, the objectives of an original, interdisciplinary model of inquiry should be able to broadly answer the following questions:

1. Who is the typical maritime cultural heritage visitor?
2. Why does the maritime cultural heritage visitor visit a particular site?
3. What activities does the maritime cultural heritage visitor participate in while at a particular site?
4. How important is the maritime cultural heritage site to the maritime cultural heritage visitor's travel plans?

5. How much time and money does the maritime cultural heritage visitor spend at a particular site?
6. Does the maritime cultural heritage visitor experience an emotional connection to a particular site, and, if so, what is its phenomenological nature?
7. Does an emotional connection to a particular site result in the maritime cultural heritage visitor engaging in pro-heritage and pro-environmental behaviour?
8. Is there any meaningful difference between the maritime cultural heritage visitor who reports being 'connected to' a particular site and the maritime cultural heritage visitor who reports being 'invested in' a particular site?

Given these objectives, this pilot study will deploy a model of inquiry that, for the purposes of profiling, classifies economic and sociocultural value as either *Incoming* (the amount of money a visitor spends *in pursuit of* visiting maritime cultural heritage and the type of place attachment they form *to* a site) or *Outgoing* (the amount of money a visitor spends coincidentally *in the course of* visiting maritime cultural heritage and the behavioural outcomes of their place attachment type and strength). The separation of these values is principally to assist cultural heritage managers, practitioners, and policy makers understand the nature of the 'value' in question and the flow-on they contribute to society and the economy. In addition, it is also an intuitive way to represent the value itself as a reciprocal loop, feeding back into visitors as behavioural outcomes and, by extension, the broader community (which eventually feeds back into sites). For example: a person visits a site, spending money to get to it and to experience it (*targeted spend*). Through this, they develop a form of attachment to it (*place attachment*). This represents a site's *Incoming* economic and sociocultural value. The site's value is then residually dispersed through the visitor when they spend money on non-heritage-based amenities (*collateral spend*) and in their altered behavioural intentions (*behavioural outcomes*). Theoretically, *Outgoing* value should result in benefits to the broad and local economies and more pro-heritage and pro-environmental behaviours from visitors long-term, which benefits *all* cultural heritage sites and material. This model can thus be represented as circular for both the individuals who experience maritime cultural heritage as well as to the sites themselves (Figure 3-27).

To build the components of the model, however, further frameworks are necessary (see Section 3.3 for sampling methods, Section 3.4 for visitor spend calculations and an overview of the attribution factor, and Section 3.5 for a breakdown of place attachment and behavioural intentions types).

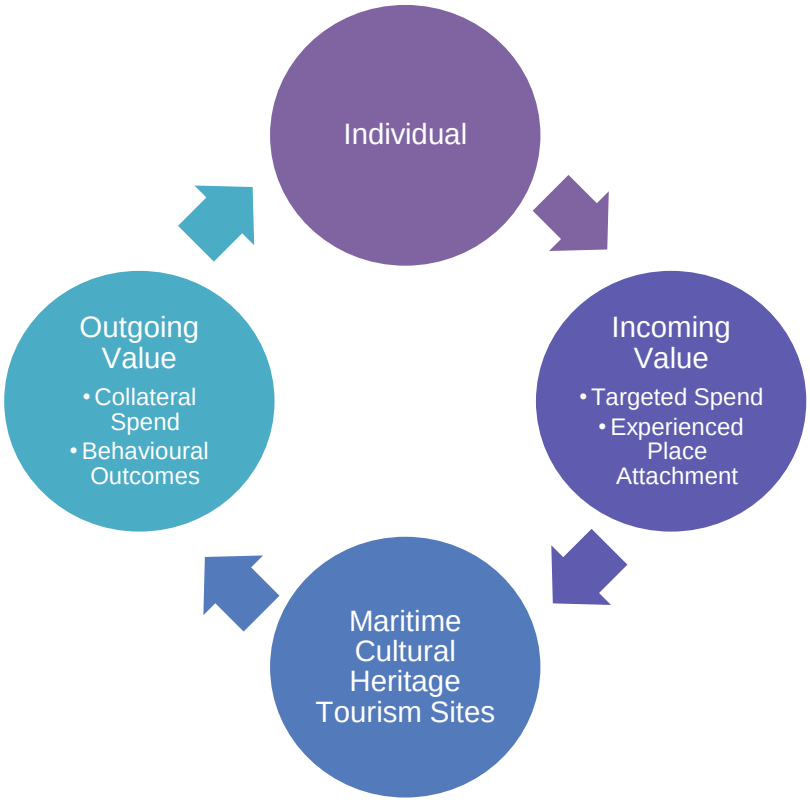

Figure 3-27 Proposed model to divide social and economic values of Maritime Cultural Heritage Tourism sites.

3.3 Sampling Methods

Because this thesis's goal was twofold (first, to test a model of inquiry, and second, to develop baseline visitor profiling data for the six South Australian maritime cultural heritage sites), it was necessary to deploy multiple methods of data collection. The two primary sampling methods included structured surveys for a mix of quantitative and qualitative demographic, economic, and categorical sociocultural information, and qualitative interviews for expanded sociocultural information relevant to local communities. Structured surveys were conducted on-site by the researcher and online through social media. The advantage of on-site surveys is that they can be completed relatively quickly, can avoid mistakes in recall, and can be conducted using either interviewer-completion or respondent-completion. The former is the preferable approach, as it can lead to an elevated standard of completion and higher response rates. Conversely, the interviews targeted those in the local (or expanded) community who consider themselves invested in or specifically connected to a site. The deployment of each approach was adapted for each site to accommodate their unique geological and environmental location and features, though the content remained identical throughout all surveys and interviews to allow for comparison. These specific approaches were chosen because the majority of existing studies that examine the economic and sociocultural value of tourism sites also employ surveys and/or interviews to collect primary data (Williams and Roggenbuck 1989, Kyle et al. 2004b, 2004c, Hughes et al. 2005, Carlsen and City of Perth 2008, Gross et al. 2008, Lewicka 2008, Hughes and Carlsen 2010, Ramkissoon et al. 2013b, 2013a, 2012, He 2013, Carlsen 2015).

3.3.1 Quantitative Data: Structured Surveys

This research deployed structured surveys that were designed to target on-site visitors to each site and collect the majority of quantitative data, including basic demographics for profiling purposes, self-reported economic spend, and experienced place attachment. This was done with a combination of open and closed questions. The survey was designed with several thematic sections, which broadly read as 'demographics', 'economic', 'site engagement', and 'place attachment'. The demographics section consists of questions designed to identify *who* the maritime cultural heritage visitor *is*. Moreover, it seeks to determine how many visitors self-identify as 'local' to the site. The economic section seeks to reveal how much time and money people spend to experience the selected sites. These figures were also used to determine an estimated economic value of each site. The site engagement section provides space for visitors to explain *why* they chose to visit the site, what activities they undertook during their visit, and what activities they would be doing if the site was hypothetically non-existent. This

section also asks visitors how 'important' cultural heritage is to their travel and holidays. Finally, the place attachment section allows visitors to explore their feelings towards the location and verbalise their experienced attachment through a set of taxonomized 'types' (see Section 3.5).

With four sections, it was important the survey was short enough in length to not dissuade potential participants, but long enough to gather the desired information. Ultimately, the survey had a total of 23 questions, which constituted a mix of long, short, and Likert scale responses (see Appendix A). Question order within each section was carefully considered, as the structure of a survey can promote interest and cooperation or build a participant's confidence (as well as potential bias, which had to be controlled for). Some of the considerations that informed the survey structure flow included asking general questions before specific ones and asking easier questions before harder ones. To limit potential bias and provide clarity for participants, the surveys used simple and conversational language to construct questions and avoided 'leading' sentences to curtail any ambiguous expression.

Both the on-site and online surveys occurred during a six-month period from October 2018 and March 2019 and all on-site surveys were conducted by the researcher personally. Additionally, five of the six sites are open and exposed to the elements during winter, making safety and pragmatism a concern for that time of year. Specifically, they are often exposed to extremely rough weather, including winds and high seas from the southwest (Straiton 2015). Due to these occasionally extreme variations in weather conditions (between summer and winter), visitation to these sites significantly decreases in winter, especially for those in the Fleurieu Peninsula. The on-site and online deployment of surveys was modified for each site (though, as noted, content did not change) to suit the environmental, social, and political situations unique to each site. On-site surveys were conducted rotationally through each site to ensure minimal overloading on visitors and to control for any adverse or unsafe weather conditions. With hot and dry Adelaide summers, the safety of both potential participants and the researcher was of paramount concern, and survey days with extreme heat, or extreme ultraviolet (UV) ratings were avoided or minimised[12]. Council and business approvals were also necessary for each on-site survey location, with some placing conditions on the researchers' methods. Finally, the online social media posts promoting the survey were placed

[12] Adelaide experienced its hottest day on record on 24 January 2019, with temperatures reaching 47.7°C. The warmest days over this period averaged 32.6°C, and the cooler days averaged 25.8°C. the average daily UV rating during this survey period was considered extreme, frequently being 13+.

on Facebook, Twitter, and Instagram while advertisements were promoted to a specific customised 'audience' targeted by survey site (see Appendix B).

Survey sampling techniques generally fall into two classificatory systems: probability, and non-probability. This research used the non-probability technique of convenience sampling for both on-site and online surveys. This technique was selected because the population of visitors for the majority of the sites is unknown, especially in terms of visitation numbers and demographics, making probability sampling difficult at best. Convenience sampling is a technique that samples people because they are 'conveniently available' sources of data, (in terms of this research, a conveniently available source of data are people *at* the study locations *during* the data collection period). This technique is also useful for collecting large batches of data relatively quickly and effectively. A large part of sampling techniques also includes having a sample size (or number of respondents/participants). Previous studies that have examined the sociocultural or economic impacts of tourism have varied in sample size. Those that have used place attachment theory have sample sizes ranging from 129 (Williams and Roggenbuck 1989) to 2,847 people (Kyle et al. 2004a), while those that examine economic impacts range from 115 (Carlsen and City of Perth 2008) to 725 people (Hughes et al. 2005). Sample sizes are generally based on a project's type of data collection, as well as the overall size of the targeted population and the accessibility of the survey to the population. Unfortunately, because many of the sites have a completely unknown population (which necessitated a convenience sample approach), the researcher had to determine *ad hoc* when sufficient respondents had been sampled. As with all approaches, this was adjusted according to the available information for each site (which is discussed further below).

On-site surveys at the South Australian Maritime Museum were conducted in the museum during opening hours. The museum provided free entry to the researcher for the purposes of this project, and visitors were engaged with while they experienced the exhibitions. While visitor numbers are known and recorded for this location, a minimum goal of 100 surveys was set for the museum.

On-site surveys at the clipper ship *City of Adelaide* were conducted in the general 'entry' space where the gift shop is located. The researcher targeted visitors who participated in tours on the vessel, as those who only experienced it externally by walking past or engaging with the volunteers (regardless of how long) were generally disinclined to participate in the survey. This was due to a seemingly pervasive perception that they had not 'fully experienced' the site. Surveys were conducted after the tours to capture respondent's thoughts and emotions *after*

their experience. As visitor numbers for the clipper ship are recorded and are much lower than the museum, a target of 50 surveys was set for this site.

On-site surveys at Garden Island were conducted in the boat/kayaking launching carpark on the eastern side of the island. This is due to the general inaccessibility of the main section of the graveyard (particularly to foot traffic). Consequently, visitors who were partaking in kayaking tours, went kayaking individually, or went boating, were also approached. Garden Island has an unknown number of visitors, and due to the inaccessible nature of the shipwrecks, a target of 50 surveys was set for this site.

On-site surveys at Port Willunga were conducted along the area's foreshore (from *Star of Greece* to the dugout boat caves) as well as in the carpark. This was to ensure survey participation represented engagement with all foreshore sites, including building remains and the café. While patrons to the café were not surveyed on café premises, those visiting the foreshore and the car park were incorporated into the potential pool of participants. Additionally, when undertaking surveys at Port Willunga, a high visibility vest was worn by the researcher in-line with council approval requirements. Some respondents reacted differently to the researcher (in some cases positively, in others, negatively) due to the presence of the vest, which may have affected results. Port Willunga has an unknown number of visitors, but is relatively accessible, and a target of 100 surveys was set for this site.

On-site surveys at the ex-*HMAS Hobart*, which is located under approximately 30 metres of water, were impractical. Consequently, surveys were only promoted online through Facebook and Twitter posts, and Facebook and Instagram advertisements. Additionally, these posts were shared and promoted through online social media, specifically targeting South Australian SCUBA diving groups. The ex-*HMAS Hobart* is one of the most inaccessible and least-visited sites selected for this study, and a small target of 30 surveys was set.

On-site surveys at Rapid Bay were conducted at both the jetty and carpark, as well as at the campground and beach foreshore to ensure a range of visitors were included within the potential respondent pool. Rapid Bay's unique geographical layout means visitors are often spread between the jetty for diving and fishing and the campground and beach for other recreation. Surveys at both the jetty/carpark and campground/beach were conducted in-line with council and business owner requirements. Additionally, extra caution was taken when approaching people in the campground with respect for designated personal boundaries, with the researcher remaining outside of these demarcations unless invited in by participants.

Rapid Bay is an easily accessible site with a range of activities for visitors, and a target of 100 surveys was set for this site.

3.3.2 Qualitative Data: In-Depth Interviews

The in-depth interviews were designed to contextualise survey data through a more detailed and qualitative sociocultural lens. While the surveys were targeted at visitors to each site, the interviews were targeted at people who consider themselves 'invested in' or 'connected to' each site regardless of whether they visit it or not. This part of the research mostly encompassed individuals who are part of volunteer organisations and stakeholder groups, but also included other community members who consider themselves more than just a 'visitor'. In this context, using a guided interview approach allowed for a dynamic process that provided interviewees with the space to express and explore their connections and attachments to a relevant site. Following a loose structure, the questions were designed to guide interviewees while simultaneously maintaining enough flexibility to allow the researcher to seek clarification and explore when necessary.

Additionally, the interviews were also designed to encourage interviewees to think about tourism at the relevant site and how important they consider the industry, as well as their own personal knowledge of the site's history and subjective 'meaning'. Interviews were conducted after the completion of the survey period. Interviewees were not approached directly but instead through generic emails sent to stakeholder groups, businesses, and other associated organisations, which were then sent to members, customers, staff, and volunteers (a snowball data collection method). Interested interviewees made themselves known during the survey collection period or contacted the researcher directly to organise an interview. The interviews were conducted in this manner across all six selected sites, although the time and place varied for each interviewee. As the guided interviews were designed to search for deeper sociocultural information, each site had a lower target of 5 – 10 interviews (see Appendix A for a complete list of interview questions).

3.4 Right on the Money: Economic Value

Because the economic value of cultural heritage tourism is a more studied topic than its sociocultural value, the range of practised calculative approaches to defining it is naturally wider, resulting in some diverse methodological considerations. This thesis quantifies the economic value of the selected maritime cultural heritage sites using a two-step process drawn from some of these practises. The first step comprises a series of simplistic calculations using data from survey responses to approximate *how much* money each respondent (and their travelling group, if applicable) spent during their trip, and what the money was spent *on*. The question sets were developed from several studies that attempt to evaluate cultural heritage sites as tourism locations across Australia (Cegielski et al. 2000, Hughes et al. 2005, Carlsen and City of Perth 2008, Carlsen 2015). This data was then averaged per respondent to obtain an average spend per person per day, as well as a total average spend for each site and overall. The second step involved determining how much was spent *in pursuit of* visiting the maritime cultural heritage site (the *targeted spend*) and how much was spent incidentally *in the course of* visiting the maritime cultural heritage site (the *collateral spend*). Economic value was then measured as *Incoming* economic value (the *targeted spend*) and *Outgoing* economic value (the *collateral spend*).

3.4.1 Calculating Spends

The question set designed to ascertain a respondent's total trip spend focused on *expense type*, asking the respondent what they spent, in total, by broad category (such as 'accommodation', 'food and drinks', 'activities', 'travel', etc.). However, to obtain proper averages for the respondent's spend per person per day, respondents were also asked if these values were per day (or a total figure for the trip), how many people the values covered, and the total length of their trip in days. All calculations were then finalised in Australian dollars [AUD]. The adapted economic question set used for the survey appears as follows:

- How many days did you spend visiting this location?
- How much money have you spent locally during your visit to this location?
    - Accommodation (hotels, motels, airbnbs, etc.)
    - Travel (bus fare, fuel, parking, etc.; not flights)
    - Food and drink (hotels, restaurants, shops, etc.)
    - Activities (equipment hire, tours, entry fees, etc.)

    - Other (clothing, merchandise, souvenirs, etc.)
- How many people were covered by your spending (as detailed in the previous question)?
- During your visit to this location, did you travel as or with:
    - Individual
    - Family
    - Friends
    - A larger group
        - Tour group
        - Work group
        - Educational group
        - Other

It is important to note the limitations of self-reported spends, as the figures ultimately provided are subject to estimation and may not accurately represent a respondent's *actual* spend. Unfortunately, the only way to remedy this limitation is to either engage with visitors *before* their trip and ask them to record all expenses as they go or otherwise establish an experimental study design. Both options are beyond the scope of this thesis, but care was taken to research previous attempts to obtain such data and incorporate their methodology where appropriate and practical. Responses were subjected to several mathematical calculations mirroring those of previous studies (Cegielski et al. 2000, Hughes et al. 2005, Carlsen and City of Perth 2008, Carlsen 2015). Total spend was calculated by simple addition across categories, adjusting accordingly whenever responses dictated a necessity to do so (for example, if a respondent reported spending $50 on accommodation, but spent it every day for three days).

Average spend per person and length of stay (in days) by site was obtained by taking each relevant respondent's total trip spend and length of stay (in days) and dividing it by the number of respondents for that site:

Average trip spend = *Total trip spend* / *Number of respondents*

AND

Average trip length = *Total trip length* / *Number of respondents*

Once the average trip spend per person and average trip length were calculated for each site, these figures were used to calculate the average spend per person per day, with the following equation:

Average spend per person per day = *Average trip spend* / *Average number of people* / *Average number of days*

The total annual spend by site was then calculated by multiplying the average visitor spend per person per day figure, the average trip length (in days), and the total number of annual visitors by site:

Total annual spend = *Average spend per person per day* X *Average trip length (in days)* X *Annual number of visitors*

These calculations were repeated for all respondents regardless of site to obtain an *overall* average spend per person per day across *all* sites. The economic data also required some minor statistical treatment to remain broadly accurate due to the fact that outlier responses (extreme values) can distort analysis on primary data sets dealing with means. Consequently, outlier responses two or more +/- standard deviations from the mean were removed from the final results.

3.4.2 The Attribution Factor

The second step in assessing each site's economic value was to determine how much of a respondent's total spend was attributable to the presence of the *maritime cultural heritage* at the site (the money spent *in pursuit of* visiting the maritime cultural heritage, i.e., the *targeted spend*, or *Incoming* economic value of the site) and how much of the spend was attributable to the presence of the site *generally* as a tourist destination (the money spent coincidentally *in the course of* visiting the maritime cultural heritage, i.e., the *collateral spend*, or *Outgoing* economic value of the site). To extrapolate this division per respondent, an attribution factor – expressed as a percentage – was calculated based on the answers a respondent gave to three sociocultural questions gauging the importance of the site's nature (in this case, maritime cultural heritage) to the respondent's travel plans. In other words, a respondent's travel

motivation, the activities they engaged in, and the importance they placed on heritage was used to calculate approximately how much of their trip spend was due to the presence of maritime cultural heritage material at the site they visited. The questions, as well as the attribution factor calculation, were drawn from previous studies (Hughes et al. 2005, Carlsen and City of Perth 2008, Carlsen 2015). The first two questions allowed for open answer responses while the third used a five-point Likert scale (where 1 = not at all important, 3 = moderately important, and 5 = extremely important):

- What was your main reason for visiting this location?
- What activities did you engage in or plan to engage in during your visit to this location?
- In general, how important do you consider the following amenities when travelling?

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Friends and family	○	○	○	○	○
Heritage (museums, trails, experiences, etc.)	○	○	○	○	○
Entertainment (movies, theatre, sport, etc.)	○	○	○	○	○
Shopping (shops, malls, markets, etc.)	○	○	○	○	○
Hospitality (hotels, bars, restaurants, cafes, etc.)	○	○	○	○	○
Nature (parks, beaches, wildlife, etc.)	○	○	○	○	○

Responses to the first two questions were qualitatively analysed to determine what proportion of respondents were motivated to experience the maritime cultural heritage at the site, and what proportion engaged in an activity directly related to the cultural heritage at the site. Responses to the third question were collated and recoded into an ‘important’, ‘neutral’, or ‘not

important' percentage rating (where 1 and 2 = not important, 3 = neutral, and 4 and 5 = important). These proportions were first calculated by site, and then again for *all* respondents regardless of site. The attribution factor itself is expressed as a percentage. This percentage is calculated from how many respondents reported the heritage features of the sites to be key factors in their motivation and activities, and how important heritage is for their holiday and travel plans overall (Carlsen and City of Perth 2008, Carlsen 2015). Thus, it is calculated by:

$$\textit{Motivation (\%)}^{13} = \frac{\text{Number of responses which identified heritage}}{\text{Number of responses}}$$

Then:

$$\textit{Attribution Factor (\%)} = \text{Motivation (\%)} \times \text{Activities (\%)} \times \text{Importance (\%)} / 3$$

Once the attribution factor had been calculated, it was multiplied by the total annual spend at a site to determine how much of the spend represented *targeted* (or *Incoming*) economic value and how much of the spend represented *collateral* (or *Outgoing*) economic value:

$$\textit{Total targeted spend} = \textit{Total annual spend} \times \textit{Attribution factor (\%)}$$

As an example, if the total annual spend at a site is $100,000 and the site has an attribution factor of 75%, then $75,000 can be called *targeted* (i.e., money spent *in pursuit of* visiting maritime cultural heritage) and $25,000 can be called *collateral* (i.e., money spent *in the course of* visiting a maritime cultural heritage). Under this model, precisely *where* money is spent is not necessarily important. Booking a hotel room in Mt Gambier, for example, is still *targeted* spending if it is to facilitate driving between Melbourne and Adelaide specifically to visit the ex-*HMAS Hobart*.

3.4.3 Why an Attribution Factor?

The primary advantage of using an attribution factor is that it can be used to estimate the economic value of the *maritime cultural heritage material* present at a site rather than the economic value of the site itself as a tourism destination (Carlsen and City of Perth 2008, p. 7). Calculating the 'targeted' and 'collateral' economic spend of visitors was deemed to be a

[13] Repeated for each variable, motivation, activity, and importance.

more semantically appropriate representation of a site's economic value than other terminologies, including 'direct' and 'indirect' spends. This is due to several reasons, but primarily because 'direct' and 'indirect' spends are established terms within the tourism industry with their own meanings and inferences. Additionally, the conventional use of the term 'direct spend' refers to all the spending visitors make during their trip, which tends to inflate numbers whenever a singular effect is of interest (such as the presence of maritime cultural heritage material) simply because it becomes almost impossible to make assertions of attribution. Visitors may spend money to experience cultural heritage during their visit, but the rest of their spend may be causally unrelated. For example, at the Garden Island Shipwreck Graveyard, the Adelaide Speed Boat Club holds biannual speed boat races in North Arm. Visitors to these races passively experience the shipwreck graveyard (which provides a backdrop for the races), however, their visitation and associated spend is entirely dependent on the races. If the races were held elsewhere, most spectators would presumably travel to the new location instead, forgoing the maritime cultural heritage experience. Another consideration is the fact that the selected sites encompass a range of site types, with different levels of monitoring, accessibility, and tourism development, which makes relying solely on on-site spends to calculate value problematic. While not a major issue for sites like the museum and clipper ship (that are fee-to-enter), it is mostly impossible to accurately estimate spending for unmonitored sites like the shipwreck graveyard and ex-*HMAS Hobart,* which have no on-site facilities. Arguably, their economic value is derived from what visitors spend in off-site locations, which the attribution factors are designed to capture and accurately interpret.

In fact, and as previously stated, the use of attribution factors in this thesis represents a formalised attempt to quantify how much of a person's trip spend is attributable *specifically* to maritime cultural heritage material. This is because attempts to generalise otherwise are inherently flawed. For example, every diver who visits a site like ex-*HMAS Hobart* directly experiences the cultural heritage material at the site, however, claiming that every dollar spent to visit the site was spent *due* to the cultural heritage material is disingenuous. Divers may still visit ex-*HMAS Hobart* purely because it is an artificial reef that hosts expansive and often colourful flora and fauna, and the experience of simply diving may be enough to draw a significant number of visitors itself. For this reason, attribution factors were calculated using factorial analyses using confidence intervals. Confidence intervals are statistically derived figures identifying the lower and upper range of a variable where 95% of a relevant population (i.e., all site visitors) would fall (if generalised out). Confidence intervals are increasingly being reported in statistics, as they provide more information about the studied population than

significance or p-values alone (Haukoos and Lewis 2005). Confidence intervals were also applied to the mean economic spend per person per day at each site.

3.5 Social Sorcery: Sociocultural Value

Despite its terminological ambiguity, archaeologists continue to use 'sense of place' when measuring sociocultural value. This thesis, however, uses the more conceptually defined place attachment theory to interpret and measure each respondent's attachment to maritime cultural heritage sites. Here, the implementation of place attachment theory involves measuring the relationship between two distinct – but equally important – variables to convert at least part of a site's intangible value into actionable, tangible data. The first variable is a subjective, self-reported measurement of *place attachment type* obtained from each survey respondent's answers to four question sets. The outcome was the determination of a respondent's *place attachment type* to a site (perhaps the site forms an integral element of their personal identity, or they may be pragmatically reliant on the site for a wage, etc.). The second variable is a subjective, self-reported measurement of *behavioural intentions type* obtained from each survey respondent's answers to two scenario sets. The outcome was the determination of a respondent's willingness to engage in either low or high effort pro-environmental and/or pro-heritage behaviours (perhaps they are willing to clean up rubbish at a site, or they may be interested in attending management meetings, etc.). Finally, comparing the relationship between the variables involved searching for statistical correlations between *place attachment type* and *behavioural intentions type* (for example, is someone who experiences place social bonding at a site likely to advocate for legislation that will protect it?). Sociocultural value was then measured as *Incoming* (the role an individual assigns a site within their own life, or *place attachment type* and strength) and *Outgoing* (the role a site has on altering an individual's behaviour, or *behavioural intentions type* and intensity).

3.5.1 Place Attachment Type

Place attachment theory is largely untested when it comes to maritime cultural heritage material, and broader discussions in tourism often question what psychological constructs are relevant to actionable visitor data (Williams et al. 1992, Kaltenborn and Williams 2002, Hwang et al. 2005, He 2013, Ramkissoon et al. 2013a). Without precedent, it is necessary to adapt a model of place attachment theory from a parallel discipline, and consequently, the framework deployed for this thesis is based on previous environmental tourism research by Ramkissoon (2013a, 2013b). Ramkissoon's work focused on the emotional connections individuals formed with national parks in Australia's eastern states, and subscribed to a multi-dimensional version of place attachment theory. The model consisted of four place attachment 'types': 'place identity', 'place affect', 'place dependence', and 'place social bonding', which collectively represent a visitor's 'attachment' to a particular site (Ramkissoon et al. 2013a, p. 554). Each

type defines a different component of attachment, conceptualised under an inductive understanding of how attachment can ultimately manifest (Figure 3-28).

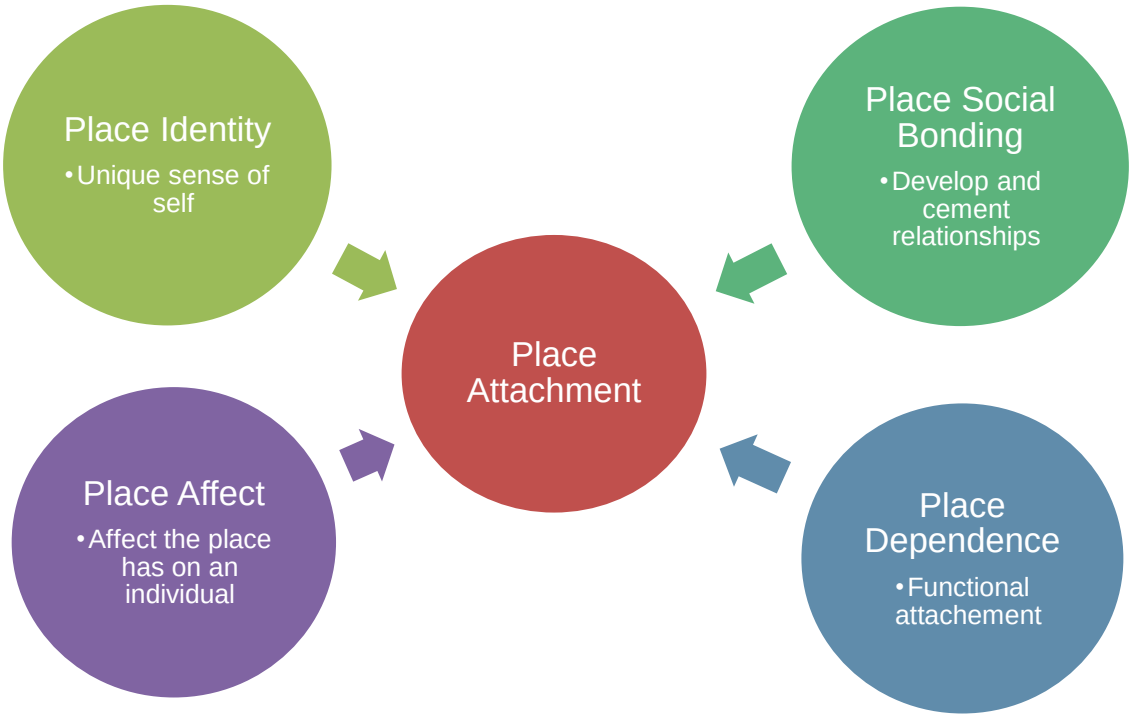

Figure 3-28 The adapted components of place attachment.

As an attachment type, 'place identity' refers to a site's ability to help people form a unique sense of self. 'Place affect' refers to the affects that a place has on an individual, which can include things like ambiance, aesthetics, and overall 'feel' of the place. 'Place dependence' relates to a visitor's functional attachment; their ability to achieve goals or partake in activities at a place with an awareness of how unique the place is for their preferred activities. 'Place social bonding' refers to the ability of a place to assist an individual develop and cement interpersonal relationships (Williams and Vaske 2003, p. 831, Kyle et al. 2004c, p. 102, Lewicka 2008, p. 211, Ramkissoon et al. 2013a, p. 554). For the purposes of data collection within this thesis, each place attachment type is condensed into a practical set of three statements – or examples – designed to measure its applicability to a respondent's overall attachment experience to a particular site. They are:

- Place Dependence
    - (PD-1): For the recreational activities I enjoy most, the settings offered here are the best

    - (PD-2): For the type of recreational activities I enjoy, I would not substitute this place for any other
    - (PD-3): I enjoy visiting this location more than any other historical place
- Place Identity
    - (PI-1): I identify strongly with this location
    - (PI-2): I feel this location is part of who I am
    - (PI-3): Visiting this place says a lot about who I am
- Place Affect
    - (PA-1): I am very attached to this location
    - (PA-2): I feel a strong sense of belonging to this location
    - (PA-3): This location means a lot to me
- Place Social Bonding
    - (PSB-1): Many of my friends and family have visited this location
    - (PSB-2): The friendships developed by visiting this location strongly connects me to this place
    - (PSB-3): This place allows me to connect with and get close to my friends and family

The respondent indicates how much they agree with each statement according to a five-point Likert scale (where 1 = strongly disagree, 3 = neutral, and 5 = strongly agree). A mean number is then calculated from each statement set, resulting in an overall agreement factor for the attachment type. A positive score (i.e., above 3) indicates an applicable attachment type, while a negative score (i.e., below 3) indicates an inapplicable attachment type. As long as the respondent scores positively in one attachment type it is arguable that they experience place attachment – or a 'sense of place' – to the site in question. This represents a site's *Incoming* sociocultural value, summarised by the site's role in the lives of individuals (i.e., the value they place on the site). It also provides granular data facilitating differentiation between attachment types per respondent, which can subsequently be compared with each respondent's behavioural intentions to measure which attachment types correlate with which behavioural intentions types.

3.5.2 Behavioural Intentions Type

Scholars have long argued that people's intentions and feelings can often predict their future behaviours and actions (Ajzen 1988, He 2013). This thesis attempts to capitalise on this theory by examining the relationships between *place attachment types* and *behaviour intentions types*. In fact, one of the ways this thesis measures sociocultural value is by extrapolating the relationship between the potentially observable behaviours a maritime cultural heritage site may induce in visitors and the type of attachment they experience to a site. Behavioural intentions types therefore represent a site's *Outgoing* sociocultural value, summarised by the site's role in altering an individual's behaviour (i.e., the affect the site has on them). For the purposes of data collection within this thesis, each *behavioural intentions type* is condensed into a series of example scenarios designed to roughly emulate the amount of time and resources an individual would expend when engaging in them. They are:

- Low Effort
    - (LE-1): Sign petitions in support of the heritage and environment at this location
    - (LE-2): Learn about the history of this area
    - (LE-3): Tell my friends/family to not feed wildlife
    - (LE-4): Tell my friends/family to dispose of waste appropriately
    - (LE-5): Recommend friends and family to visit
- High Effort
    - (HE-1): Volunteer my time to help with projects at this site
    - (HE-2): Participate in meetings about this site
    - (HE-3): Write letters in support of this site

As with the place attachment statements, the scenarios are adapted from previous studies that explore behavioural intentions in general (Kyle et al. 2003, 2004d, 2004a, Ramkissoon et al. 2012, 2013b, He 2013, Buonincontri et al. 2017) that sought to identify a connection between place attachment and pro-environmental behaviour (Williams and Roggenbuck 1989, Williams et al. 1995, Jörgensen and Stedman 2001, Williams and Vaske 2003, Halpenny 2010, Ramkissoon et al. 2013b). It was necessary, however, to alter the scenarios slightly to foreground pro-heritage-based behavioural scenarios. Once again, the respondent indicates

how likely they are to engage with each activity according to a five-point Likert scale (where 1 = extremely unlikely, 3 = neutral, and 5 = extremely likely). This facilitates differentiation between *behavioural intentions types* per respondent, which can subsequently be compared with each respondent's *place attachment type* to measure which *place attachment types* correlate with which *behavioural intentions types*. It is important to note that this thesis does not consider *observed* behaviour and instead relies on subjective self-reporting by respondents (hence the use of the term 'behavioural intentions' rather than 'behaviour indicators'). This is because it simply was not feasible to construct a longitudinal, probability-based, scientific experiment to physically observe behavioural outcomes.

3.5.3 Statistical Considerations

Due to its nature, processing and analysing social data is more complex than economic data. Some scholars may even balk at the use of simplistic Likert scales for measuring place attachment and behavioural intentions, even if it helps paint a palatable picture of the data. Nevertheless, place attachment theory is used in a range of disciplines and a plethora of contexts, and the variety of analyses that have been run on similar data sets is extensive. They include chi-square (Kyle et al. 2004a, Orange 2010, He 2013, Goussous and Al-Hammadi 2018), one-way analysis of variance (ANOVA) (Kyle et al. 2004a, Brown et al. 2015), structural equation modelling (Kyle et al. 2004d, Halpenny 2010, Buonincontri et al. 2017), exploratory factor analysis (Halpenny 2010, He 2013, Ramkissoon et al. 2013b, Goussous and Al-Hammadi 2018), independent sample t-tests (Raymond et al. 2010, He 2013, Brown et al. 2015, Goussous and Al-Hammadi 2018), multiple regression analysis (Ramkissoon et al. 2013b), frequencies (He 2013), correlations (He 2013), and path analysis and regression tests (Buonincontri et al. 2017), all of which – if conducted or interpreted incorrectly – can render months' or years' worth of data collection effectively meaningless. A vital aspect of this thesis, however, is the more comprehensive application of statistical analyses than is typical to demonstrate the inadequacy of current statistical standards.

Statistical tests for sociocultural value were conducted using the Statistics Package for Social Sciences (SPSS) (IBM Corp. 2017), unless stated otherwise. The first tests conducted were simple frequencies to expound the demographic data (descriptive statistics) collected through both surveys and interviews at each site (see Section 3.3 for an overview on sampling methods). This included a respondent's age, sex, postcode, how long and often they went to the site, travel group size, and survey response status. This data was then collated for all six selected sites, forming an 'average' visitor profile for each site (this is discussed in Chapter 4). This profile included the motivational data pulled from the attribution questions discussed in

Section 3.4.2, which, in addition to economic data, provided some qualitative contextualisation for each individual's attachment to the relevant site.

The next batch of tests concerned the conceptual validity of the question sets for *place attachment type* and the scenario sets for *behavioural intentions type*. A confirmatory factor analysis and exploratory factor analysis were both used on the collected data to ensure responses to either set matched the type they purportedly measured (for example, that the question 'I identify strongly with this location' actually measured place identity, or the 'write letters in support of this site' scenario actually represented a high effort behaviour). The confirmatory factor analysis tested if the 'type' model structure was verified with the resulting data set, while the exploratory factor analysis (a multivariate test) identified whether the proposed underlying relationships between question sets, scenario sets, and their relevant 'type' classification, were valid (Figure 3-29 and 3-30). Both the confirmatory factor analysis and exploratory factor analysis were conducted using MPlus ('MPlus [Version 8]. Computer Software' 2018) due to its status as a more robust statistical software package for ordinal scale data (like those produced by Likert scales) (Beauducel and Yorck Herzberg 2006, Camacho et al. 2012, Wang and Wang 2012, pp. 30–80, Distefano and Morgan 2014, Dahlström et al. 2015, Lloret et al. 2017, Tan et al. 2018). Finally, Cronbach's Alpha reliability tests were performed to measure the internal consistency – which is an assessment of how reliably survey or test items that are designed to measure the same construct actually do so – for each type's question set or scenario (Streiner 2003, Pallant 2007, pp. 95–99, Zumbo et al. 2007, Gadermann et al. 2012, Dunn et al. 2014) (Figure 3-29 and 3-30). The results from these tests are discussed in Chapter 5.

After the model's validity was tested, the data was then analysed directly to determine which *place attachment types* and *behavioural intentions types* were the most and/or least applicable experiences for visitors at each site. As discussed in Sections 3.5.1 and 3.5.2, this was obtained by averaging respondents' scores across each question and scenario set into a unified Likert scale variable for each *place attachment type* and *behavioural intentions type* (where 1 = strongly inapplicable, 3 = neutral, and 5 = strongly applicable). This data was then averaged for all respondents at each site, and again for *all respondents* across all sites using confidence intervals to extrapolate to the entire visitor population. This was then merged with the demographic results and motivational information drawn from the economic attribution data questions discussed in Section 3.4.2 to create an 'average' visitor profile for each site and for maritime cultural heritage tourism in South Australia generally (all of which are presented in Chapter 4).

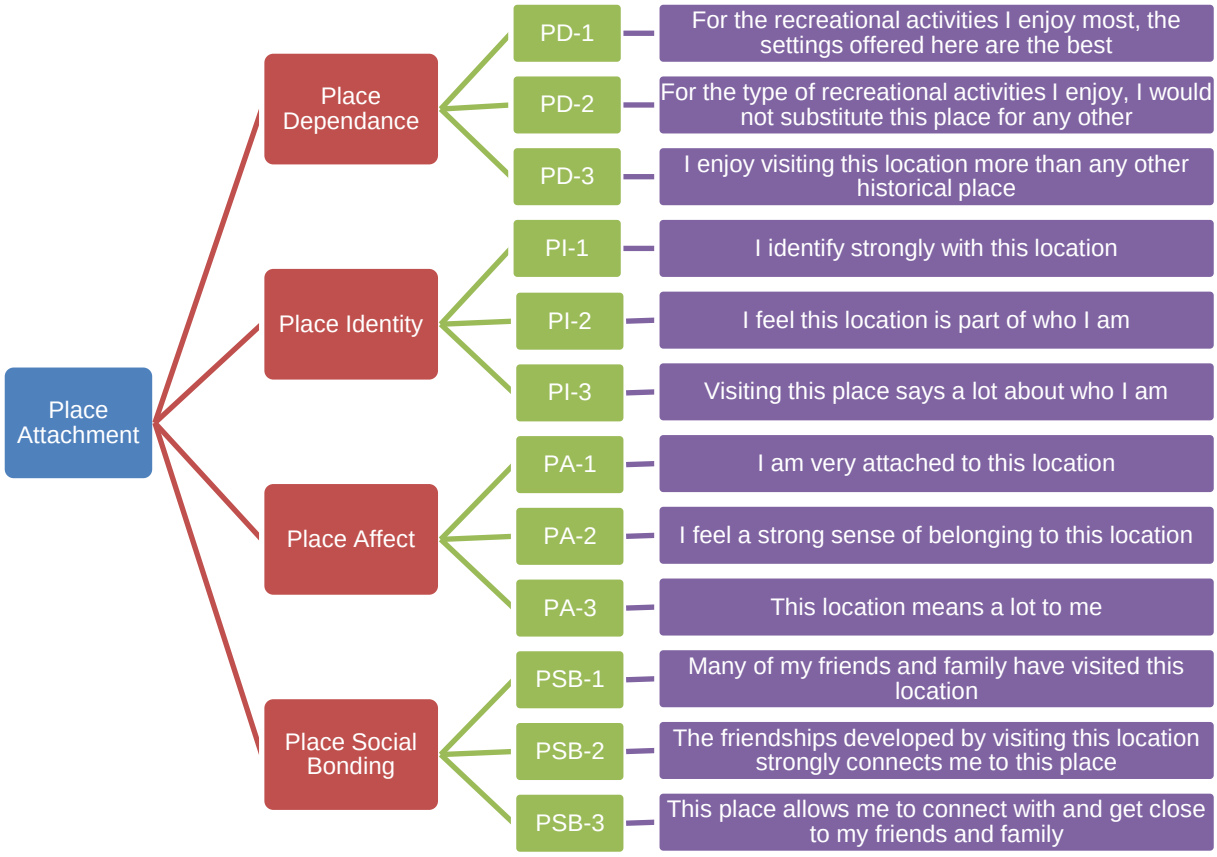

Figure 3-29 Four 'type' structure of place attachment theory and the relevant validity tests.

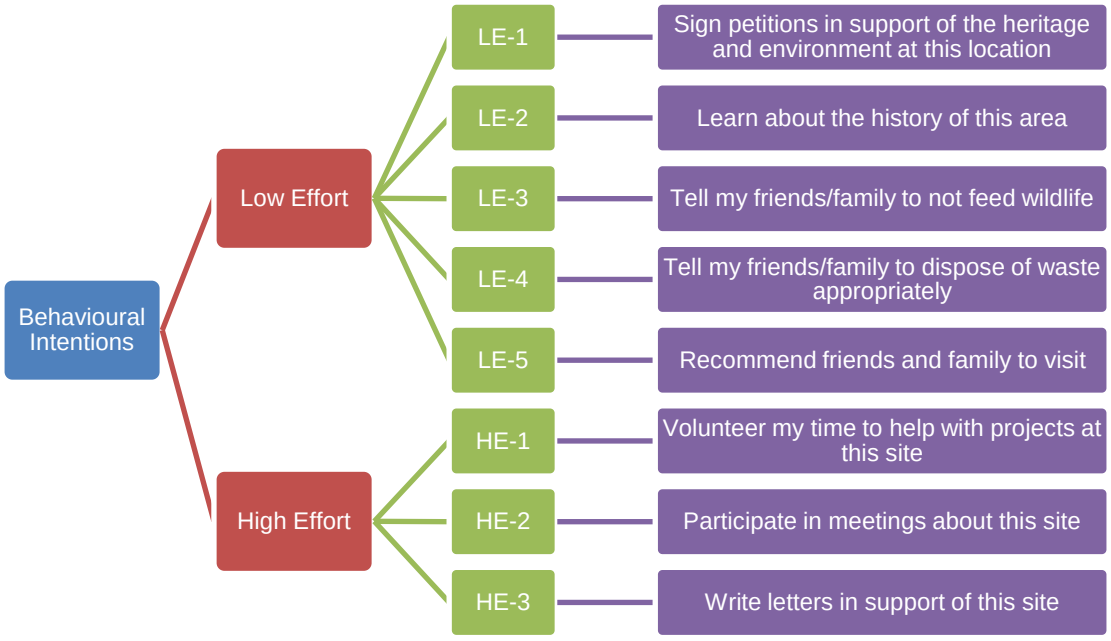

Figure 3-30 Two 'type' structure of behavioural intentions type and the relevant validity tests.

The last batch of statistical tests determined correlation coefficients between *place attachment types* and *behavioural intentions types*. The data for these components presented as 'non-parametric', which means answers to the Likert scale questions tended to skew towards one

end of the spectrum or the other (i.e., most respondents indicated type applicability of 1 or 5 rather than the more neutral 2, 3, or 4). When translated to histograms, the data is consequently non-normally distributed: it does not present in a typical *n* shape conducive to easily calculating means, standard deviations, and correlation coefficients (Figure 3-31). To account for this, a Spearman rank analysis was conducted with correlation coefficient tests for all respondents at site level and again for all respondents regardless of site. To assist in the creation of confidence intervals (which allow the results to be extrapolated to the total visitor population) the data was 'bootstrapped'. Bootstrapping is a statistical technique that uses random resampling within a sample group to estimate the distribution and calculate the confidence intervals (Haukoos and Lewis 2005). The resulting narrower sample helps reduce the overall confounding effects of sampling errors. Bootstrapping was again conducted at both site and state level.

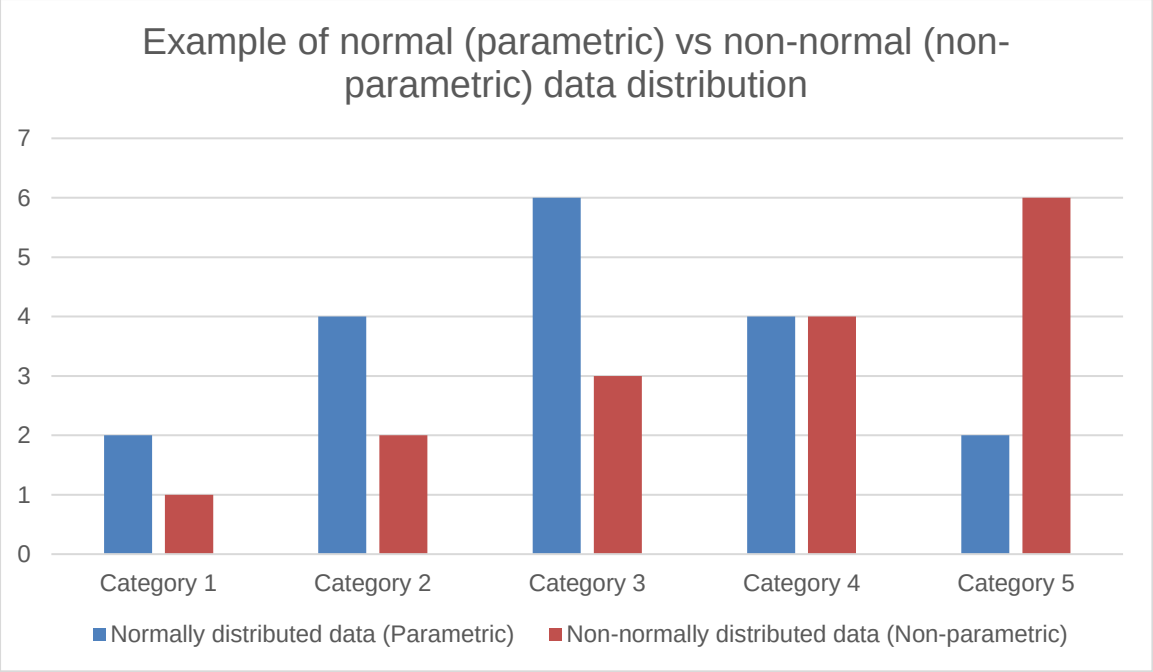

Figure 3-31 Parametric vs non-parametric data distributions. Image created as an example only.

The final test for sociocultural value involved a recursive system path analysis on the correlation coefficients (as well as the related variables) using the averaged place attachment applicability for all respondents regardless of site. This was conducted using the SPSS AMOS (Analysis of a Moment Structures) software package (Arbuckle 2017). The purpose of the recursive system path analysis is to test the strength of each correlation between *place attachment type* and *behavioural intentions type* while identifying and countering for any covariance between *place attachment types*. This allows for the statistical differentiation between each *place attachment type* to ensure each is measuring place attachment while

representing a unique concept. It can also be used to estimate the rate of effective change needed in one attachment type to determine its hypothetical effect on *behavioural intentions type*. While similar to the previous coefficient tests, the recursive system path analysis helps determine the validity of correlation by accounting for potentially confounding factors (Figure 3-32). Importantly, this test could only be conducted at the state level (which uses the data gathered from *all* six sites) because a recursive system path analysis requires a sample size of at least 300 (Thakkar 2020, p. 26).

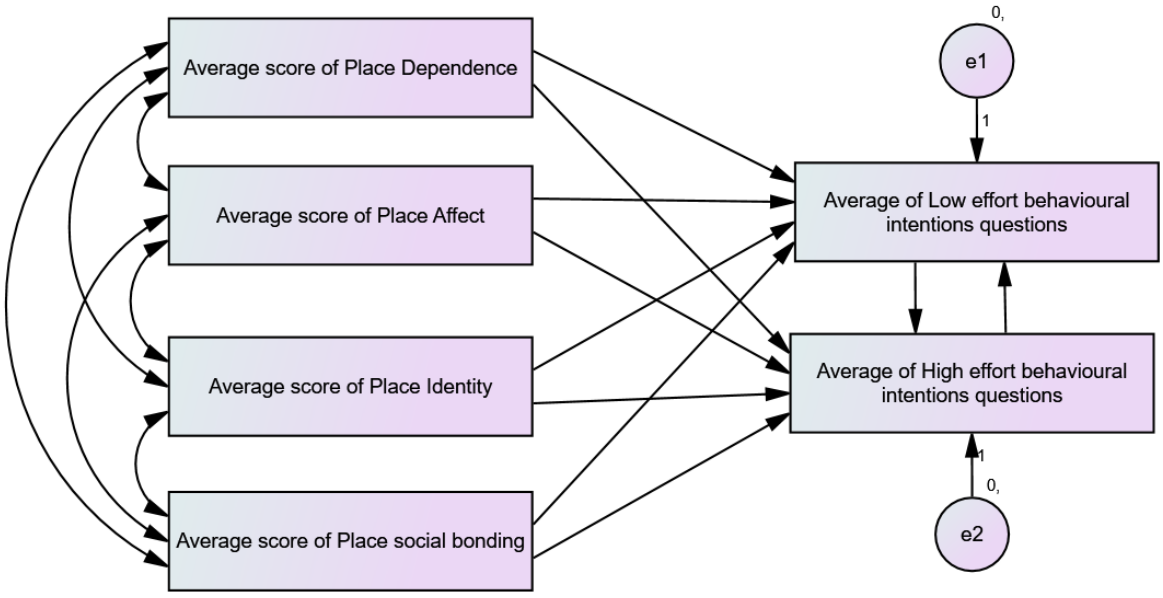

Figure 3-32 Correlations between place attachment variables and behavioural variables.

3.6 Chapter Summary

This chapter reviewed the study's methodology, which adapts approaches from several disciplines that have been combined to create a single, interdisciplinary model of inquiry. The model is designed to assess the economic and sociocultural value of maritime cultural heritage tourism sites in South Australia by using estimated visitor spends divided by an attribution factor and the self-reported interaction between *place attachment type* and *behavioural intentions type*. The study includes both surveys of casual site visitors and focused interviews with site stakeholders (individuals who felt especially invested in or connected to a particular site). The surveys were deployed via on-site face-to-face engagements and online via social media (Facebook and Twitter posts and Facebook and Instagram ads). The results will also be subjected to an array of statistical tests to determine if the model was applicable, and the data statistically reliable and generalisable. This combined quantitative and qualitative approach is largely unique in the maritime cultural heritage tourism sphere of study. The results obtained by the model, as well as a review of its application and appropriateness for maritime cultural heritage tourism sites, are presented in the next two chapters.

4 Site Results

'There was a magic about the sea. People were drawn to it. People wanted to love by it, swim in it, play in it, look at it.'

— Cecelia Ahern, *The Gift*, 2009.

This chapter presents the results of the data analysis for each site before combining all data sets to present an overview of maritime cultural heritage tourism in South Australia. Each section presents the results for the descriptive data analysis, economic data analysis, and sociocultural data analysis for a single site, culminating in the final chapter section, which generalises the data to a state-wide industry snapshot-level. The descriptive data analysis touches on the demographics, ethnographic profiles, and trip characteristics of visitors. The economic analysis calculates the approximate economic value of the maritime cultural heritage material located at each site (according to the attribution factor model discussed in Section 3.4.2). The sociocultural data analysis discusses both the intangible connections people experience to each site (through place attachment questions and interviews conducted with local community members), and the tangible, actionable benefits they may have (by comparing *place attachment type* with *behavioural intentions type*). The chapter concludes with the South Australian maritime cultural heritage tourism snapshot created through the combination and reassessment of all data collected within this study.

4.1 South Australian Maritime Museum

4.1.1 Visitor Profile

At the South Australian Maritime Museum, 149 visitors participated in surveys. Of these, 62 were completed on-site and face-to-face and 87 were completed via the online survey platform. Additionally, all surveys completed on-site were *fully* complete, while the online completions ranged from *partially* to *fully* complete (Table 4-1 and Appendix B, Figure B-3, B-4, B-5, B-6). Notably, the data collected from these partial surveys can still be utilised for relevant sections. For example, if the survey was completed up to and including the economics data, then this data has been included within the demographics and economic data sets. This was made possible by the presentation of the survey questions. Because of this, the 'total response' numbers presented may vary from section to section. This is applicable to *all* sites.

Table 4-1 Surveys completed for the South Australian Maritime Museum.

		Response Type		
		Online	On Site	Total
		Count (n=)	Count (n=)	Count (n=)
Stage complete	Opened never completed	0	0	0
	Information sheet	0	0	0
	Demographics	9	0	9
	Economic	10	0	10
	Site activities	3	0	3
	Social (fully complete)	65	62	127
	Total	87	62	149

A larger portion of responses were provided by females (65.8%) than males (34.2%) (Table 4-2). This does not suggest that men are underrepresented within the data set, as observational and demographic data analysis suggests that participants from the museum visited mainly with family (65.9%) or friends (12.3%), which often included males (Table 4-3). The data simply suggests that women are more likely to participate in surveys than men (Smith 2008, p. 3). It was also common (across all sites) for only one member of a group to participate in the survey. It is important to note that observationally reported 'family' groups did not always compromise the nuclear 'mother, father, children' combination (they also compromised single parents, aunts, uncles, grandparents, and any conglomeration thereof).

Table 4-2 Basic demographics of survey responses for the South Australian Maritime Museum.

Demographics		Count (n=)	Column (N %)
What gender do you identify as?	Male	51	34.2%
	Female	98	65.8%
	Non-binary	0	0.0%
	Total	149	100.0%
What is your age?	18-24	6	4.0%
	25-34	29	19.5%
	35-44	17	11.4%
	45-54	32	21.5%
	55-64	28	18.8%
	65+	37	24.8%
	Total	149	100.0%
Do you identify as "local" to this location?	Yes	46	30.9%
	No	103	69.1%
	Total	149	100.0%

Table 4-3 Characteristics of respondents' trip pattern for the South Australian Maritime Museum.

Characteristics		Count (n=)	Column (N %)
Postcode visitor type	South Australian	117	80.7%
	Interstate	21	14.5%
	International	7	4.8%
	Total	145	100.0%
Days continuously visiting site	Single day	132	95.7%
	Trip with overnight stay	0	0.0%
	Trip with two or more overnight stays	6	4.3%
	Total	138	100.0%
During your visit to this location, did you travel as or with:	Individual	24	17.4%
	Family	91	65.9%
	Friends	17	12.3%
	A larger group	6	4.3%
	Total	138	100.0%
Is this your first visit to this location?	Yes	51	36.4%
	No	89	63.6%
	Total	140	100.0%

Most survey respondents identified as nonlocal (69.1%) (Table 4-2), even though 80.7% were South Australian. Only 14.5% of respondents were from interstate locations while 4.8% were international visitors (Table 4-3). Regardless of their home location, most respondents were engaged in single day trips (95.7%) but repeat visits were common for many (63.6%) (Table 4-3). International respondents came primarily from Europe, North America, and New Zealand, while interstate respondents came from all over the country (but predominantly Victoria) (Appendix C, Figure C-1). Intrastate respondents, meanwhile, predominately came from the Greater Adelaide area with no respondents originating from outback or far regional South Australian locations (Appendix C, Figure C-2, and C-3). This spread of intrastate visitors differs from other selected sites where intrastate visitors came from as far south as Mount Gambier and as far north as Port Augusta. This lack of locational diversity is noteworthy because Port Adelaide is often considered the maritime cultural heritage 'hub' of South Australia due to its history and current use as the state's commercial shipping port. The museum's location within this space has created the impression that it, too, is a nexus for the state's maritime history, but the data suggests that this draw is primarily effective only for international and interstate visitors, not intrastate visitors.

Table 4-4 Descriptive statistics on the factors visitors to the museum feel are important for their travel or holiday plans.

	N =	Minimum	Maximum	Mean	95% Lower CL for Mean	95% Upper CL for Mean
Friends and family	129	1	5	4.14	3.96	4.32
Heritage (museums, trails, experiences, etc.)	129	2	5	4.24	4.11	4.37
Entertainment (movies, theatre, sport, etc.)	129	1	5	3.07	2.88	3.26
Shopping (shops, malls, markets, etc.)	129	1	5	2.62	2.42	2.82
Hospitality (hotels, bars, restaurants, cafes, etc.)	129	1	5	3.48	3.32	3.65
Nature (parks, beaches, wildlife, etc.)	129	1	5	4.28	4.14	4.42

Survey respondents were also questioned about the factors they consider important when travelling or making holiday plans. As well as contributing to economic evaluations, these questions highlighted which factors are important for visitors' travel plans. Museum visitors in general ranked travelling or visiting with family and friends as 'very important' (Appendix C

Figure C-4), however, visiting nature and heritage was still considered slightly more important to travel plans overall (Table 4-4, Appendix C, Figure C-4, and Appendix D, Table D-1).

4.1.2 Economic Value

As discussed in Section 3.4, the model of inquiry deployed in this project attempts to focus economic evaluations on determining how much economic spend is directly attributable to the maritime cultural heritage material at each site. The approach was adopted from previous studies conducted across Australia and uses several relatively simple equations to provide a conservative but reliable estimation of economic value (Appendix E). It includes the calculation of an *attribution factor* and a *total visitor expenditure*, as well as a *total attributable economic expenditure*, which can then be parsed as a visitor's *targeted spend*.

Table 4-5 Average visitor expenditure per person per day for those visiting the South Australian Maritime Museum.

	Count (n=)	Sum	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Days on site	140	157	1.12	.98	1.27
Accommodation ($)	140	4,305	30.75	-.94	62.44
Travel ($)	140	2,115	15.11	5.58	24.63
Food ($)	140	5,261	37.58	26.52	48.64
Activities ($)	140	4,690	33.50	28.49	38.51
Other ($)	140	2,502	17.87	6.91	28.84
Total ($)	140	18,873	134.81	83.45	186.16
Adults	140	244	1.74	1.61	1.88
Children	140	98	.70	.36	1.04
Total people	140	342	2.44	2.05	2.83

Visitor expenditure at the South Australian Maritime Museum is based on reported trip spends from survey respondents (Table 4-5). This was calculated from the average spend per person per day, the average number of visitation days, and the annual number of visitors (Appendix E). This research adjusted for outliers (see Section 3.4.1) and identified that the average spend per person per day at the museum was $49.33. Furthermore, based on survey respondents, visitors to the museum frequently travelled in groups of 2.44 people (1.74 adults and 0.70 children) to spend approximately 1.12 days on site (Table 4-5). Fortunately, of all the selected sites, the South Australian Maritime Museum was the easiest to gather accurate visitor numbers for, as it is the only site that fully monitors all visitation. The museum provided this data to assist in the calculation of the museum's economic value to Port Adelaide and the

broader South Australian community. The museum reports receiving 63,495 annual visitors, which encompasses the 12,167 who paid to enter the nearby lighthouse and the 16,903 people who visited both the lighthouse and the museum.

The annual direct visitor expenditure is calculated with the following equation (see Section 3.4 and Appendix E):

Total annual direct visitor expenditure	=	*Average daily visitor expenditure per person per day*	*X*	*Average length of stay (days)*	*X*	*Annual number of visitors per year*
$ 3,508,073.35	=	*$ 49.33*	*X*	*1.12*	*X*	*63,495*

Based on these results, the estimated total annual visitor expenditure at the South Australian Maritime Museum is $3.5 million. It is important to note that this figure represents the 2018/2019 financial year, and that other factors may alter this figure, including yearly variations and global pandemics such as COVID-19. To calculate how much of this total annual expenditure could be considered *targeted* (a direct result of the maritime cultural heritage material) and how much could be considered *collateral* (an incidental consequence of the maritime cultural heritage material's presence), an attribution factor was summarily applied to this figure. As previously discussed, the attribution factor identifies which proportion of visitors consider cultural heritage as significant and, summarily, an important part of their experience. It is a figure therefore based on a combination of respondents' motivations, priorities, and chosen activities (see Section 3.4.2).

Survey respondents at the South Australian Maritime Museum identified their primary motivating factor for visiting the site as its cultural heritage assets (100%), while visiting with friends and family was the second highest motivating factor (82.81%) (Table 4-6). Furthermore, they frequently mentioned wanting to share knowledge and local history with their children or grandchildren. This explains another key driver, which was to satisfy a child's or grandchild's interest in maritime history and/or the marine environment (including flora and fauna). Respondents at the museum also rated heritage as an important factor for their travel and holiday plans in general (82.17%) (Table 4-8). Additionally, 85.25% of respondents specifically mentioned directly engaging with the heritage assets and features as an activity they participated in at the museum (Table 4-8).

Table 4-6 Main reason or motivation for visiting the South Australian Maritime Museum (n=128).

Motivation	Responses	Percentage	Lower CL 95%	Upper CL 95%
Heritage	128	100.00%	97.09%	100%
Friends and Family	106	82.81%	75.35%	88.37%
Shopping	2	1.56%	0.43%	5.52%
Nature	2	1.56%	0.43%	5.52%
Entertainment	1	0.78%	0.14%	4.29%
Hospitality	0	0.00%	0.00%	2.91%
Other	0	0.00%	0.00%	2.91%

Table 4-7 Respondent's importance rating for factors important for their travel (n=129).

Attribute	Not Important	Neutral	Important
Friends and Family	10	16	103
Heritage	1	22	106
Entertainment	35	55	39
Shopping	56	46	27
Hospitality	18	48	63
Nature	3	14	112

Table 4-8 Activities undertaken during their visit to the South Australian Maritime Museum (n=122).

Activity	Responses	Percentage	Lower CL 95%	Upper CL 95%
Heritage	104	85.25%	77.88%	90.46%
Hospitality	66	54.10%	45.27%	62.68%
Other	34	27.87%	20.68%	36.41%
Shopping	15	12.30%	7.59%	19.30%
Nature	6	4.92%	2.27%	10.32%
Friends and Family	6	4.92%	2.27%	10.32%
Entertainment	0	0.00%	0%	3.05%

Other activities visitors participated in while at the site included visiting local hospitality establishments (54.10%) and participating in a range of ‘other’ physical activities (27.87%) (Table 4-8). These were, of course, based outside of the museum itself and included walking or driving around Port Adelaide and the Docks to ‘sightsee’. In Port Adelaide, and specifically around the maritime museum, most buildings are heritage listed (see Section 3.1.1). Therefore, such activities are arguably heritage activities, however, if respondents did not specifically mention looking at or engaging with cultural history/heritage, their response was categorised as ‘other’. Respondents may simply have ‘gone for a walk’, making their decision

to do so irrelevant to the heritage material at the Port, despite them experiencing it anyway. Consequently, activities such as 'went for a walk to see the other heritage buildings' are coded into both the 'heritage' and 'other' categories as it provides deeper insights into the direct impacts of local heritage on museum visitors.

Based on the above percentages (100% of respondents indicated that cultural heritage was their main reason for visiting, 82.17% of respondents rated heritage and cultural heritage as 'important' or 'very important', and 85.25% of respondents engaged in activities involving cultural heritage places, assets, or features), the attribution factor for the South Australian Maritime Museum is 89.14%. This means that 89.14% of the total expenditure, or $3.1 million of the total annual expenditure of $3.5 million, can be considered *targeted*, or money spent in pursual of visiting maritime cultural heritage material *specifically*. This was calculated with the following equation:

Total annual attributable visitor expenditure	=	*Total annual direct visitor expenditure*	*X*	*Attribution factor (%)*
$ 3,127,096.58	=	*$ 3,508,073.35*	*X*	*89.14%*

4.1.3 Sociocultural Value

As discussed in Section 3.5, the model of inquiry deployed in this project attempts to quantify *some* (not all) of the less tangible and intangible sociocultural value of maritime cultural heritage material (through *place attachment type*) by finding ways to transform portions of the data into tangible, actionable information (specifically, by comparing *place attachment type* to *behavioural intentions type*). As with the project's economic evaluation strategy, this approach was adapted from previous studies in place attachment theory that focused primarily on nature-based tourism in Australia. A place attachment framework was utilised to measure the type and depth of psychological connection survey respondents and interviewees have to the South Australian Maritime Museum, with most experiencing *some* form of psychological connection, regardless of type (Table 4-9, Appendix C, Figure C-5, Appendix F, Table F-1 and Appendix G, Table G-1). When experienced, attachment is most likely to come from a respondent's dependence on the museum as a facilitator for recreational activity (mean 3.44), however, social bonding through the museum also scored highly (mean 3.40). These results are mirrored with observational data, which reveals that older members of a family (parents/grandparents) would often take younger members (children/grandchildren) to the museum for a 'day out'. This allowed individuals within groups to partake in their chosen

recreational activities while also bonding with members of their close social or familial group. Respondents still reportedly connect to the museum though the place identity and place affect sub-dimensions, albeit marginally (mean 3.26 and 3.12, respectively). These results seem to emphasise the role of the museum as a family friendly educational institution where people can connect intellectually with each other and their maritime heritage. Considering these individual attachment scores as a single overall score of emotional connection, visitors to the South Australian Maritime Museum have the second lowest of all sites at 3.30.

Table 4-9 Mean scores of the amalgamated place attachment dimensions from visitors to the South Australian Maritime Museum.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average score of Place Dependence	149	3.44	3.29	3.60
Average score of Place Affect	149	3.12	2.88	3.35
Average score of Place Identity	149	3.26	3.04	3.48
Average score of Place Social Bonding	149	3.40	3.22	3.58

Table 4-10 Mean scores of the amalgamated place attachment dimensions from interviewees for the South Australian Maritime Museum.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Place Dependence	5	3.87	3.24	4.49
Average of Place Affect	5	5.00	5.00	5.00
Average of Place Identity	5	5.00	5.00	5.00
Average of Place Social Bonding	5	4.87	4.64	5.09

Conversely, however, interviewees were more likely to experience attachment through the place affect and identity dimensions (mean of 5.00) (Table 4-10). They often expressed deep personal connections with the site and Port Adelaide itself, citing favourable memories of their childhood and life around the area. The difference between the average survey respondent's connection to the museum and the average interviewee's connection to the museum, stems from both type *and* strength: interviewees tended to view the museum as an integral part of their individual identity while respondents tended to view it as a pragmatic place to help them connect with others.

Survey respondents indicated they were willing to undertake behaviours considered 'low effort' tasks (mean 4.36) that positively impact the museum and surrounding environment but were disinclined to undertake 'high effort' behaviours (mean 2.53) (Table 4-11, Appendix C, Figure C-6, Appendix F, Table F-2 and Appendix G, Table G-1). In fact, all low effort behaviours were

popular with both respondents and interviewees, including 'learning about local history'. Furthermore, although many respondents noted the behaviour 'tell friends and family not to feed the wildlife' was 'odd' for a museum environment, many still indicated they would undertake the behaviour (Appendix C, Figure C-6). Conversely, interviewees indicated that they would undertake 'low effort' and 'high effort' behaviours in equal measure (Table 4-12). This may be due to most interviewees being volunteers for the museum who already undertake the majority of both 'low effort' and 'high effort' behaviours anyway. Nevertheless, understanding both the *place attachment type* and *behavioural intentions type* of each respondent is vital to our awareness of how people value the museum and knowing the correlations between these two variables can help produce meaningful management protocols for the site. Therefore, a correlation test was conducted on survey respondent data to expound the relationship between them. This test was not conducted with interviewee data, however, as the sample size was too small to produce results. The details of this test are outlined in the methodology (see Section 3.5.3) and the results for the South Australian Maritime Museum are presented below (Table 4-13):

Table 4-11 Mean scores of the amalgamated behavioural intention factors from visitor to the South Australian Maritime Museum.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Low effort behavioural intentions questions (excluding L2)	149	4.36	4.24	4.47
Average of High effort behavioural intentions questions	149	2.53	2.33	2.74

Table 4-12 Mean scores of the amalgamated behavioural intention factors from interviewees to the South Australian Maritime Museum.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Low effort behavioural intentions questions (excluding L2)	5	5.00	5.00	5.00
Average of High effort behavioural intentions questions	5	5.00	5.00	5.00

Additionally, the fact that visitors scored highest with both the dependence *place attachment type* (3.44) and the social bonding *place attachment type* (3.40) suggests that most

respondents consider the museum an essential component for their recreational activities (and again as a key location for social interaction with family/friends).

Table 4-13 Correlations between the place attachment types and the behavioural intentions types for survey respondents at the South Australian Maritime Museum.

Spearman's rho				Average of Low effort behavioural intentions	Average of High effort behavioural intentions
Average score of Place Dependence	Correlation Coefficient			**.331****	**.454****
	Sig. (2-tailed)			.000	.000
	N			126	126
	Bootstrap[c]	Bias		-.002	-.002
		Std. Error		.084	.084
		95% Confidence Interval	Lower	.160	.279
			Upper	.485	.607
Average score of Place Affect	Correlation Coefficient			**.258****	**.374****
	Sig. (2-tailed)			.004	.000
	N			126	126
	Bootstrap[c]	Bias		.000	-.002
		Std. Error		.089	.084
		95% Confidence Interval	Lower	.083	.203
			Upper	.431	.530
Average score of Place Identity	Correlation Coefficient			**.341****	**.442****
	Sig. (2-tailed)			.000	.000
	N			126	126
	Bootstrap[c]	Bias		.000	-.003
		Std. Error		.086	.081
		95% Confidence Interval	Lower	.166	.279
			Upper	.504	.594
Average score of Place Social Bonding	Correlation Coefficient			**.621****	**.355****
	Sig. (2-tailed)			.000	.000
	N			126	126
	Bootstrap[c]	Bias		-.003	.000
		Std. Error		.060	.087
		95% Confidence Interval	Lower	.491	.177
			Upper	.726	.520

**. Correlation is significant at the 0.01 level (2-tailed).

c. Unless otherwise noted, bootstrap results are based on 5000 bootstrap samples

In terms of behavioural intentions, respondents were (overall) very likely to undertake the 'low effort' behaviours (mean 4.36), and unlikely to undertake the high effort behaviours (mean 2.53). However, when *place attachment type* is examined in isolation, place dependence had a medium positive correlation with 'high effort' behaviours (0.454) compared to place social bonding's weaker correlation with 'high effort' behaviours (0.355) (Table 4-13). Since most respondents reported experiencing place dependence, this would suggest that the likelihood of engaging in 'high effort' behaviours is high on-site, but the contrary outcome was reported (mean 2.53). This discrepancy between the disinclination to undertake 'high effort' behaviours despite the strength of the place dependence attachment score may be due to visitors using, and being dependent on, the museum to create and strengthen familial and intergenerational bonds (place social bonding, which shows a weaker correlation with 'high effort' behavioural intentions and a stronger correlation with 'low effort' behavioural intentions on *all* sites [0.544] and [0.336] respectively) (Table 4-104) rather than for a wider variety of recreation activities.

For the museum, place affect and 'low effort' behaviours have a smaller than typical correlation (0.10-0.29) and place social bonding and 'low effort' behaviours have a larger than typical correlation (0.50–0.69). The remaining combinations have a medium strength, or typical, correlation (0.30-0.49) (Table 4-13) (Leech et al. 2005, p. 56). The test does reveal, however, a general positive correlation between all *place attachment types* and *behavioural intentions types*, indicating that, in general, the 'stronger' a psychological connection (*place attachment type*) becomes, the more likely someone will undertake both 'low effort' and 'high effort' behaviours at the museum. This means that implementing activities involving social interaction with other visitors may be the most efficient way of strengthening a visitor's psychological connection to the site, which would, in turn, result in the greatest likelihood of visitors undertaking at least 'low effort' behaviours as a matter of course. Conversely, because most visitors did not consider themselves local, attempting to strengthen place attachment though place affect (i.e., community driven events or activities) may only slightly increase the likelihood of people undertaking 'low effort' behaviours. Additionally, all combinations of *place attachment type* to *behavioural intentions type*) have a significance value of less than 0.01 (sig. (2-tailed)), indicating that the results are statistically significant and present within the wider population (not just the measured sample) (Table 4-13).

4.1.4 Interviews

Relatively few interviewee responses for the museum were collected, especially when compared to other sites like the Clipper Ship *City of Adelaide*. This is due to several factors, including the fact that the museum operates primarily with paid employees rather than volunteers, which may have dissuaded multiple potential interviewees from participating. Ultimately, five interviews were conducted with a gender division of four females and one male (Table 4-14). For interviewees, both nature and heritage were more important decision-making factors for travel plans than friends and family. Similar to survey respondents, however, shopping was the least important factor (Table 4-15).

Table 4-14 Demographics of interviewees for the Maritime Museum.

		Count	Column N %
What is your sex?	Male	1	20.0%
	Female	4	80.0%
	Other	0	0.0%
	Total	5	100.0%
What age group are you?	18 - 24	0	0.0%
	25 - 34	1	20.0%
	35 - 44	1	20.0%
	45 - 54	2	40.0%
	55 - 64	1	20.0%
	65 +	0	0.0%
	Total	5	100.0%

Interviewees were questioned regarding their perspectives on the economic impacts of tourism to the museum. Specifically, they were asked how much they think the average person would spend to visit the site, and if having an economic spend is more important than visitors having an engaging and meaningful experience. Overall, interviewees *underestimated* the average spend for visitors to the museum, estimating an average spend per person of $25.40. Conversely, most interviewees (80%) indicated that they believe visitor enjoyment and spending money are equally important, while 20% indicated that they believe visitor enjoyment to be *more* important. However, no interviewee believed that spending money at the site was more important than getting a quality experience. Experientially, interviewees reported such bespoke individual connections to the museum that the data collected could not provide any meaningful insights into the experiences casual visitors have at the site. Regardless, the data

does help explain what kinds of connections *can* form, but further studies focusing specifically on these qualitative elements are highly recommended.

Table 4-15 Descriptive statistics on the factors interviewees for the museum feel are important for their travel and holiday plans.

	N =	Minimum	Maximum	Mean	95% Lower CL for Mean	95% Upper CL for Mean
Friends and family	5	4	5	4.60	3.92	5.28
Heritage (museums, trails, experiences, etc.)	5	5	5	5.00	5.00	5.00
Entertainment (movies, theatre, sport, etc.)	5	2	3	2.40	1.72	3.08
Shopping (shops, malls, markets, etc.)	5	1	3	2.00	1.12	2.88
Hospitality (hotels, bars, restaurants, cafes, etc.)	5	2	3	2.60	1.92	3.28
Nature (parks, beaches, wildlife, etc.)	5	5	5	5.00	5.00	5.00

4.1.5 Discussion

These results indicate that the South Australian Maritime Museum has significant social and economic value to South Australia as a maritime cultural heritage tourism destination. The average visitor is a South Australian travelling in a family group for a single day trip. Most are repeat visitors for whom nature and heritage material are important factors for their travel and holiday plans. All visitors are motivated to experience the heritage material interpreted at the site, and most engage with it during their visit. Additionally, most visitors also go out to eat at local hospitality establishments while walking around the area. Regardless of group composition, visitors spend an average of $49.33 per person per day, totalling $3.5 million expenditure annually. The South Australian Maritime Museum's sociocultural value appears to be derived primarily from its capacity to act as a facilitator of social bonding, with the place social bonding *place attachment type* correlating strongly with the 'low effort' *behavioural intentions type*. This suggests that creating exhibits and events that capitalise on intergenerational, interactive education may result in stronger psychological connections forming between visitors and the site itself. Nevertheless, most respondents still indicated experiencing some form of emotional connection to the site.

The data also shows that most visitors to the museum are repeat travellers (63.6%) who visit for a single day (95.7%), predominately in family groups (65.9%). Furthermore, while

experiencing heritage is a high priority for many visitors, most (82.17%) are also motivated to spend time with friends and family, reinforcing the conclusion that visitors often use the museum as a place to connect with family. This may explain why visitors to the museum were less inclined to partake in 'high effort' behaviours than visitors at most other sites with similar place attachment experiences. Visitors tended to perceive the museum as a place of education and connection for *others* rather than *themselves*; the site thus fulfils a socially mediating role rather than a culturally defining one. For future developments, the museum may continue to target their principal demographic in the family unit (including both children and adults), however, the data suggests this will have limited returns encouraging 'higher effort' pro-heritage behaviour. Consequently, targeting other forms of attachment, such as place identity (by, for example, linking exhibition narratives directly to local historical sites and families through genealogical material) and place affect (by, for example, providing on-site refreshments to encourage longer engagement). Expanding 'experientially' is difficult, unfortunately, because museums are by nature heavily curated spaces that rely on the presentation of multiple exhibits. Tailoring exhibits and transforming them into 'adventure' style installations may require minimising the museum's capacity, potentially harming its value as a site for place bonding (at least, in its current family friendly form).

4.2 Garden Island Shipwreck Graveyard

4.2.1 Visitor Profile

At the Garden Island Shipwreck Graveyard, 48 visitors participated in surveys. Half of these were completed on-site and face-to-face (Table 4-16). All surveys completed on-site were *fully* completed, while online completions ranged from *partially* to *fully* complete (Table 4-16 and Appendix B, Figure B-11, B-12, B-13, B-14).

Table 4-16 Surveys completed for the Garden Island Shipwreck Graveyard.

		Response Type		
		Online	On Site	Total
		Count (n=)	Count (n=)	Count (n=)
Stage complete	Opened never completed	0	0	0
	Information sheet	0	0	0
	Demographics	4	0	4
	Economic	3	0	3
	Site activities	1	0	1
	Social (fully complete)	16	24	40
	Total	24	24	48

Table 4-17 Basic demographics of survey responses for the Garden Island Shipwreck Graveyard.

Demographics		Count (n=)	Column (N %)
What gender do you identify as?	Male	28	58.3%
	Female	20	41.7%
	Non-binary	0	0.0%
	Total	48	100.0%
What is your age?	18-24	1	2.1%
	25-34	7	14.6%
	35-44	9	18.8%
	45-54	15	31.3%
	55-64	10	20.8%
	65+	6	12.5%
	Total	48	100.0%
Do you identify as "local" to this location?	Yes	18	38.3%
	No	29	61.7%
	Total	47	100.0%

Table 4-18 Characteristics of respondents' trip pattern for the Garden Island Shipwreck Graveyard.

Characteristics		Count (n=)	Column (N %)
Postcode visitor type	South Australian	44	91.6%
	Interstate	1	2.1%
	International	3	6.3%
	Total	48	100.0%
Days continuously visiting site	Single day	40	88.9%
	Trip with overnight stay	3	6.7%
	Trip with two or more overnight stays	2	4.4%
	Total	45	100.0%
During your visit to this location, did you travel as or with:	Individual	9	20.5%
	Family	26	59.1%
	Friends	7	15.9%
	A larger group	2	4.5%
	Total	44	100.0%
Is this your first visit to this location?	Yes	14	31.8%
	No	30	68.2%
	Total	44	100.0%

More males completed surveys (58.3%) than females (41.7%) and a third of respondents were in the 45-54 age bracket (Table 4-17). Most respondents identified as nonlocal, despite the vast majority being South Australian (Table 4-17, 4-18). Observational and demographic data suggests that most respondents travelled in principally familial groups, with only nine respondents (20.5%) visiting as individuals (Table 4-18). Most of the respondents were taking single day trips (88.9%), but they were also repeats for many (68.2%) (Table 4-18). Notably, three respondents were from international locations (Germany and Austria), while one was from New South Wales (Table 4-18 and Appendix C, Figure C-7). The remaining intrastate respondents were predominately from the Greater Adelaide area, with a small portion coming from the Port Augusta region (Appendix C, Figure C-8 and C-9). When asked which factors were important for their travel and holiday plans, respondents at the Garden Island Shipwreck Graveyard identified nature as their top priority. Travelling with or to see family and friends came in second, and cultural heritage was the third highest priority for their travel plans. Shopping was, overall, considered the least important factor (Table 4-19. Appendix C, Figure C-10 and Appendix D, Table D-2).

Table 4-19 Descriptive statistics on the factors respondents to the Garden Island Shipwreck Graveyard feel are important for their travel or holiday plans.

	N	Minimum	Maximum	Mean	95% Lower CL for Mean	95% Upper CL for Mean
Friends and family	41	2	5	4.24	3.95	4.53
Heritage (museums, trails, experiences, etc.)	41	2	5	3.90	3.62	4.18
Entertainment (movies, theatre, sport, etc.)	41	1	5	2.95	2.65	3.25
Shopping (shops, malls, markets, etc.)	41	1	4	2.02	1.65	2.39
Hospitality (hotels, bars, restaurants, cafes, etc.)	41	1	5	3.24	2.93	3.56
Nature (parks, beaches, wildlife, etc.)	41	2	5	4.39	4.15	4.63

4.2.2 Economic Value

Visitor expenditure at the Garden Island Shipwreck Graveyard is based on reported trip spends from survey respondents. As previously explained (see Section 3.4.1), this was calculated from the average spend per person per day, the average number of visitation days, and the annual number of visitors (Appendix E). The results were then adjusted to control for outliers (see Section 3.4.1). The average spend per person per day at the shipwreck graveyard is $38.08 (Table 4-20). Furthermore, people visiting the site frequently travelled in groups of 2.50 people (1.95 adults and 0.55 children) and spent approximately 1.20 days on-site.

Table 4-20 Average visitor expenditure per person per day for those visiting the Garden Island Shipwreck Graveyard.

	Count (n=)	Sum	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Days on site	44	53	1.20	.99	1.42
Accommodation ($)	44	700	15.91	-8.57	40.39
Travel ($)	44	258	5.85	2.23	9.48
Food ($)	44	1,245	28.30	10.75	45.84
Activities ($)	44	2,685	61.02	27.68	94.37
Other ($)	44	140	3.18	-1.35	7.71
Total ($)	44	5,028	114.26	57.66	170.86
Adults	44	86	1.95	1.62	2.29
Children	44	24	.55	.14	.95
Total people	44	110	2.50	1.88	3.12

Despite this data, estimating annual visitor numbers for the site is a complex task because the Garden Island Shipwreck Graveyard is an unmonitored and free-to-access location. Fortunately, Adventure Kayaking SA (a company that coordinates kayaking tours around the island) provides a generalisable annual estimate through their customer numbers. Adventure Kayaking SA reported having 4,381 customers during the 2018- 2019 fiscal year. Observational data, however, suggests that during the data collection period, approximately only one third (34%) of visitors to the island engaged in a tour. This would mean that two thirds (66%) of visitors were casual (non-tour). Assuming this is representative of the annual visitor population, a conservative estimate of annual non-tour visitors to Garden Island would be 8,620, making a grand total of 13,061 annual visitors. Additionally, the Adelaide Speedboat Club holds two or three races per year, all of which occur on North Arm (the main body of water between the shipwrecks and the club grounds). These races run over a weekend and bring in approximately 2,000 spectators per race. Attendance requires a $20 entry fee, and spectators have access to a range of food and drink vendors on-site. Unfortunately, neither the Adelaide Speedboat Club nor any of its attendees participated in this project and are consequently not included. Nevertheless, it can be argued that attendees still visit and experience the shipwreck graveyard to some degree, as the shipwrecks provide the backdrop for the races. Future research should seek to include this demographic.

The annual direct visitor expenditure is calculated with the following equation (see Section 3.4 and Appendix E):

Total annual direct visitor expenditure	=	*Average daily visitor expenditure per person per day*	*X*	*Average length of stay (days)*	*X*	*Annual number of visitors per year*
$ 596,835.45	=	*$ 38.08*	*X*	*1.20*	*X*	13,061

For the Garden Island Shipwreck Graveyard, most visitors identified a physical activity as their primary motivation for visiting the site (Table 4-21). The ‘other’ motivational category covers physical activities, with the most engaged in activity being ‘kayaking’. However, other physical actives included ‘boating’, ‘swimming’, and ‘walking the boardwalk’. Additionally, 36.59% of respondents specifically mentioned visiting the natural elements of the site (dolphin watching, exploring the mangroves, etc.) as a key motivating factor for their visit, while only 34.15% of visitors specifically mentioned the cultural heritage material (shipwrecks) (Table 4-21). Respondents who reported ‘kayaking to see shipwrecks’ as their motivation for visiting the island had their motivation categorised as both ‘other’ *and* ‘heritage’ related. Most respondents

(70.73%) also identified cultural heritage material as an important factor for their travel and holiday plans (Table 4-22).

Table 4-21 Main reason or motivation for visiting the Garden Island Shipwreck Graveyard (n=41).

Motivation	Responses	Percentage	Lower CL 95%	Upper CL 95%
Other	34	82.93%	68.74%	91.47%
Nature	15	36.59%	23.59%	51.88%
Heritage	14	34.15%	21.56%	49.45%
Friends and Family	8	19.51%	10.23%	34.01%
Entertainment	0	0.00%	0.00%	8.57%
Shopping	0	0.00%	0.00%	8.57%
Hospitality	0	0.00%	0.00%	8.57%

Table 4-22 Respondents' importance rating for factors important for their travel (n=41).

Attribute	Not Important	Neutral	Important
Friends and Family	1	10	30
Heritage	3	9	29
Entertainment	12	17	12
Shopping	25	10	6
Hospitality	8	17	16
Nature	2	1	38

Table 4-23 Activities undertaken during respondents' visits to the Garden Island Shipwreck Graveyard (n=41).

Activity	Responses	Percentage	Lower CL 95%	Upper CL 95%
Other	38	92.68%	80.57%	97.48%
Hospitality	13	31.71%	19.56%	46.98%
Nature	11	26.83%	15.69%	41.93%
Heritage	8	19.51%	10.23%	34.01%
Entertainment	1	2.44%	0.43%	12.60%
Friends and Family	1	2.44%	0.43%	12.60%
Shopping	0	0.00%	0.00%	8.57%

Given this motivational data, it is unsurprising that the most engaged in activities at the site were physical (92.68%) (Table 4-23). Respondents also reported visiting hospitality establishments, principally for lunch and/or coffee (31.71%). Unfortunately, Garden Island has no on-site hospitality establishments, so visitors reported travelling into Port Adelaide to meet

this need. The physical activities mentioned included all of those that appeared in the motivational portion of the survey and cover kayaking, walking, swimming, and boating. All of these activities occurred in the Port River, specifically around Garden Island, and almost all respondents who engaged in them would have experienced the surrounding nature and heritage to some degree. However, responses were only categorised thusly if respondents specifically mentioned the nature or heritage as a motivating factor for that activity (for example, 'kayaking to see the dolphins').

Based on the above percentages (34.15% of respondents indicating that cultural heritage was the main reason for visiting, with 70.73% of respondents rating heritage and cultural heritage as 'important' or 'very important' and 19.51% of respondents engaging in activities involving cultural heritage places, assets, or features), the attribution factor for the Garden Island Shipwreck Graveyard is 41.46%. This means that 41.46% of the total expenditure, or $247,447 of the total annual expenditure of $596,835, can be considered *targeted*, or money spent in pursuit of visiting the maritime cultural heritage material located at the site. This was calculated with the following equation:

Total annual attributable visitor expenditure	=	*Total annual direct visitor expenditure*	*X*	*Attribution factor (%)*
$ 247,447.98	=	*$ 596,835.45*	*X*	*41.46%*

4.2.3 Sociocultural Value

Most respondents reported experiencing some kind of psychological connection to the site (Table 4-24, Appendix C, Figure C-11, Appendix F, Table F-3 and Appendix G, Table G-2). The most commonly experienced *place attachment type* stemmed from respondents' dependence on the Garden Island Shipwreck Graveyard for its recreational capacity, particularly for kayaking (mean 3.73). Social bonding and place identity also scored relatively highly (means 3.57 and 3.49, respectively). These results were mirrored by the observational, demographic, and interviewee data, which suggests visitor groups were often familial in nature, and specifically geared towards group activities such as kayaking, picnicking, and boating. Furthermore, several respondents remarked that they had travelled to the island as children with their parents and now return with their children to bond and create 'new, fun, family memories'. Arguably, these inter-generational trips help visitors link their individual identity with the site. Respondents also reported experiencing place affect, albeit marginally (mean 3.06) (Table 4-24). Considering these individual attachment scores as a single overall

score of emotional connection, visitors to the Garden Island Shipwreck Graveyard have an average place attachment score of 3.46.

Table 4-24 Mean scores of the amalgamated place attachment dimensions from visitors to the Garden Island Shipwreck Graveyard.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average score of Place Dependence	48	3.73	3.48	3.98
Average score of Place Affect	48	3.06	2.66	3.46
Average score of Place Identity	48	3.49	3.11	3.87
Average score of Place Social Bonding	48	3.57	3.22	3.92

Table 4-25 Mean scores of the amalgamated place attachment dimensions from interviewees from the Garden Island Shipwreck Graveyard.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Place Dependence	6	4.56	3.41	5.70
Average of Place Affect	6	4.67	4.12	5.21
Average of Place Identity	6	5.00	5.00	5.00
Average of Place Social Bonding	6	4.83	4.64	5.02

Conversely, interviewees were more likely to experience attachment through place identity (mean 5.00) (Table 4-25), often expressing the nature of their connection with the site by referring to their own memories of it. Place social bonding and place affect were also strong factors (mean 4.83 and 4.67 respectively). Despite most reported memories revolving around physical activities, place dependence was ranked lower than other *place attachment types* (mean 4.56), but still represented a significant factor (Table 4-25).

Most respondents at the Garden Island Shipwreck Graveyard were more willing and likely to engage in ‘low effort’ behaviours (mean 4.68) to protect the heritage and environment at Garden Island but were neither inclined nor disinclined to engage in ‘high effort’ behaviours (mean 2.98) (Table 4-26, Appendix C, Figure C-12, Appendix F, Table F-4 and Appendix G, Table G-2) regardless of *place attachment type*. Additionally, several ‘low effort’ behaviours were more likely to be undertaken than others. Notably, all survey respondents would tell friends or family members to dispose of their waste appropriately (Appendix C, Figure C-12) and recommend others visit (Appendix C, Figure C-12), but other ‘low effort’ behaviours,

including ‘telling friends and family not to feed the wildlife’ or ‘learn about the local history’, were unappealing to many respondents (Appendix C, Figure C-12).

Table 4-26 Mean scores of the amalgamated behavioural intentions types from respondents at the Garden Island Shipwreck Graveyard.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Low effort behavioural intentions questions (excluding L2)	48	4.68	4.51	4.85
Average of High effort behavioural intentions questions	48	2.98	2.53	3.44

The latter may be due to the island and surrounding water ways being a popular fishing destination (despite the presence of dolphins), an activity that inherently requires the ‘feeding’ of wildlife. Regardless, a significant portion of respondents noted that they would stop friends and relatives from feeding the dolphins. Furthermore, while the island and graveyard has played an important role in the development of the South Australian colony, the island has scant on-site resources that convey this history to the public. Consequently (for some visitors), ‘learning’ about it seems to be considered an onerous task, even though visitors who undertake a tour with Adventure Kayaking SA are given brief historical and environmental overviews of the island, graveyard, and waterways.

Table 4-27 Mean scores of the amalgamated behavioural intentions types from interviewees at the Garden Island Shipwreck Graveyard.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Low Effort Behaviours	6	5.00	5.00	5.00
Average of High Effort Behaviours	6	4.89	4.71	5.07

Interviewees were also more likely to engage in ‘low effort’ behaviours (mean 5.00), but unlike survey respondents, were also inclined to engage in ‘high effort’ behaviours (mean 4.89) (Table 4-27). This may have been due to the fact that most of the interviewees were volunteers for conservation groups and were consequently already engaged in many of the ‘high effort’ behaviours.

Table 4-28 Correlations between the place attachment types and the behavioural intentions types for survey respondents at the Garden Island Shipwreck Graveyard.

Spearman's rho				Average of Low effort behavioural intentions	Average of High effort behavioural intentions
Average score of Place Dependence	Correlation Coefficient			**.416****	**.464****
	Sig. (2-tailed)			.008	.003
	N			40	40
	Bootstrap[c]	Bias		-.002	-.007
		Std. Error		.136	.124
		95% Confidence Interval	Lower	.121	.196
			Upper	.661	.682
Average score of Place Affect	Correlation Coefficient			**.325***	**.500****
	Sig. (2-tailed)			.041	.001
	N			40	40
	Bootstrap[c]	Bias		-.001	-.008
		Std. Error		.148	.140
		95% Confidence Interval	Lower	.018	.186
			Upper	.603	.734
Average score of Place Identity	Correlation Coefficient			**.516****	**.709****
	Sig. (2-tailed)			.001	.000
	N			40	40
	Bootstrap[c]	Bias		-.005	-.010
		Std. Error		.118	.092
		95% Confidence Interval	Lower	.259	.486
			Upper	.714	.844
Average score of Place Social Bonding	Correlation Coefficient			**.534****	**.538****
	Sig. (2-tailed)			.000	.000
	N			40	40
	Bootstrap[c]	Bias		-.004	-.004
		Std. Error		.122	.135
		95% Confidence Interval	Lower	.270	.240
			Upper	.747	.761

**. Correlation is significant at the 0.01 level (2-tailed).

c. Unless otherwise noted, bootstrap results are based on 5000 bootstrap samples

Correlation tests revealed a positive correlation between all *place attachment types* and *behavioural intentions types* for survey respondents. While the strength of the correlation

varied for each measured variable, the tests indicated that the 'stronger' the psychological connection, the more likely respondents were to partake in pro-heritage and pro-environmental behaviours. For the Garden Island Shipwreck Graveyard, place identity and 'high effort' behaviours have a much larger than typical correlation, while place dependence with both 'low effort' and 'high effort' behaviours and place affect with 'low effort' behaviours returned a medium strength or typical correlation (0.30 and 0.49, respectively). The remaining combinations have a slightly larger than typical correlation (between 0.50 and 0.69) (Table 4-28) (Leech et al. 2005, p. 56). In particular, place identity seemed to be the primary reason respondents experienced a psychological connection to the site and correlated the most strongly with 'high effort' behavioural intentions. Most of these combinations also had a significance value of less than 0.01 (sig. (2-tailed)), indicating that the results are statistically significant, and would present within the wider population (Table 4-28).

4.2.4 Interviews

A total of six interviewee responses were collected for the shipwreck graveyard, four from females and two from males (Table 4-29). Interviewees were spread across age groups, but no one over the age of 65 was represented. The majority of interviewees considered nature, friends and family, and heritage to all be essential to their travel plans (Table 4-30) and similar to survey respondents, regarded shopping as the least important factor (Table 4-30).

Table 4-29 Demographics of interviewees for the Garden Island Shipwreck Graveyard.

		Count	Column N %
What is your sex?	Male	2	33.3%
	Female	4	66.7%
	Non-binary	0	0.0%
	Total	6	100.0%
What age group are you?	18 - 24	1	16.7%
	25 - 34	2	33.3%
	35 - 44	1	16.7%
	45 - 54	1	16.7%
	55 - 64	1	16.7%
	65 +	0	0.0%
	Total	6	100.0%

Table 4-30 Descriptive statistics on the factors interviewees for the Garden Island Shipwreck Graveyard feel are important for their travel or holiday plans.

	N =	Minimum	Maximum	Mean	95% Lower CL for Mean	95% Upper CL for Mean
Friends and family	6	4	5	4.83	4.40	5.26
Heritage (museums, trails, experiences, etc.)	6	4	5	4.67	4.12	5.21
Entertainment (movies, theatre, sport, etc.)	6	2	3	2.50	1.93	3.07
Shopping (shops, malls, markets, etc.)	6	1	3	1.67	0.81	2.52
Hospitality (hotels, bars, restaurants, cafes, etc.)	6	3	3	3.00	3.00	3.00
Nature (parks, beaches, wildlife, etc.)	6	5	5	5.00	5.00	5.00

Interviewees for the Garden Island Shipwreck Graveyard were also asked about their perspectives on the economic impacts of tourism to the site. Specifically, they were asked how much they think the average person would spend to visit the site, and if economic spend is more important than visitors having an engaging and meaningful experience. Overall, interviewees slightly *overestimated* the average spend per person, citing an average figure of $46.67. Regardless, most interviewees (83%) believe that 'enjoying the site and getting a meaningful experience' is just as important as visitors 'spending money' to see the site, while the remaining 17% of interviewees believe enjoying the site and getting a meaningful experience is more important than visitors spending money. No interviewee believed that spending money at the site was more important than getting a quality experience.

4.2.5 Discussion

These results indicate that the average visitor to the Garden Island Shipwreck Graveyard is a South Australian travelling in a family group for a single day. Most are repeat visitors for whom nature and family are important considerations for their travel. Most are motivated to visit the site to engage in physical activity and some will travel to Port Adelaide to enjoy the local amenities. Regardless of group composition, visitors spend an average of $38.08 per person, totalling $596,835.45 in direct annual expenditure. The Garden Island Shipwreck Graveyard's sociocultural value appears to be derived primarily from the confluence of activities available at the site (like boating, dolphin watching, and kayaking), and the effect it has on visitors' conceptualisation of identity. At the very least, this study proves that *most* visitors experience an emotional connection to the site to some degree, and that the island itself has likely survived

as a popular destination due to its capacity to host a number of recreational activities. The Garden Island Shipwreck Graveyard is also one of the few sites where place social bonding positively correlated strongly with 'high effort' pro-heritage and pro-environmental behavioural intentions than 'low effort' behavioural intentions. Therefore, *all place attachment types* correlated more strongly with 'high effort' behavioural intentions, even though 'low effort' behavioural intentions returned a higher overall score (mean 4.68) than 'high effort' behaviour (mean 2.98) (Table 4-26, Table 4-28).

One potential confounding factor which may have contributed to this oddity is social response bias. Respondents may have overreported their likelihood of engaging in 'low effort' behaviour for acceptability reasons, perceiving the researcher's questions as a kind of 'test of character'. Being honest regarding 'high effort' behaviour may be viewed as more reasonable, given the necessary expenditure of time and resources. It is worth nothing that social response bias may also have coloured the results of all six sites, and observational data certainly would support this, as respondents often felt the need to justify their lack of willingness to engage in 'high effort' behaviour, despite not being prompted to do so by the researcher. At the Garden Island Shipwreck Graveyard, respondents tended to remark that the site was 'too far away' for 'high effort' pro-heritage and pro-environmental activities, and most also claimed they 'didn't have the time/capacity' to do so. However, observational data suggests that many would make the effort if a 'threat' to the site's continuance materialised. Furthermore, the response rate is comparably low to other sites. Notably, there were only 40 data points suitable for statistical analysis, which rendered the results less reliable.

Nevertheless, the results suggest that the site's primary issue as a cultural heritage site is its general lack of accessibility and interpretation. The majority of visitors (South Australians) rely heavily on the site to undertake their preferred recreational activities, but the site itself does not accommodate visiting the cultural heritage material as a sole recreational activity (to even get close to the shipwrecks themselves, a visitor *must* go kayaking or boating, or risk becoming trapped in the mangroves). The addition of a walking trail or foot bridge to the main body of shipwrecks would correct this issue, and the implementation of close-quartered interpretation for the individual shipwrecks as well as the site at large (and not just generic heritage signage), would allow people to visit and experience the heritage without having to overcome the challenge of a physical activity. This could potentially open the site to a broader archaeotourism market, making the site more accessible to a range of people who are not currently part of the visitor demographic, including those with accessibility issues or those for whom kayaking is not a recreational activity. It would also provide more casual visitors, such as photographers, with safer options. Ultimately, the Garden Island Shipwreck Graveyard has

a firm foundational visitor group, one that could readily be increased with a moderate investment in infrastructure and appropriate visitor engagement and interpretation.

4.3 Clipper Ship *City of Adelaide*

4.3.1 Visitor Profile

At the Clipper Ship *City of Adelaide*, 60 visitors participated in surveys, 49 of which were completed via the online survey platform. All the surveys completed on-site were *fully* completed, while online completions ranged from *partially* to *fully* complete (Table 4-31 and Appendix B, Figure B-7, B-8, B-9, B-10).

Table 4-31 Surveys completed for the Clipper Ship City of Adelaide.

		Response Type		
		Online	On Site	Total
		Count (n=)	Count (n=)	Count (n=)
Stage complete	Opened never completed	0	0	0
	Information sheet	0	0	0
	Demographics	2	0	2
	Economic	3	0	3
	Site activities	1	0	1
	Social (fully complete)	43	11	54
	Total	49	11	60

Table 4-32 Basic demographics of survey responses for the Clipper Ship City of Adelaide.

Characteristics		Count (n=)	(Column N %)
What gender do you identify as?	Male	34	56.7%
	Female	26	43.3%
	Non-binary	0	0.0%
	Total	60	100.0%
What is your age?	18-24	2	3.3%
	25-34	6	10.0%
	35-44	4	6.7%
	45-54	13	21.7%
	55-64	19	31.7%
	65+	16	26.7%
	Total	60	100.0%
Do you identify as "local" to this location?	Yes	26	44.1%
	No	33	55.9%
	Total	59	100.0%

Table 4-33 Characteristics of respondents' trip pattern for the Clipper Ship City of Adelaide.

		Count (n=)	Column N %
Postcode visitor type	South Australian	52	86.7%
	Interstate	5	8.3%
	International	3	5.0%
	Total	60	100.0%
Days continuously visiting site	Single day	43	76.8%
	Trip with overnight stay	4	7.1%
	Trip with two or more overnight stays	9	16.1%
	Total	56	100.0%
During your visit to this location, did you travel as or with:	Individual	16	28.1%
	Family	33	57.9%
	Friends	4	7.0%
	A larger group	4	7.0%
	Total	57	100.0%
Is this your first visit to this location?	Yes	26	45.6%
	No	31	54.4%
	Total	57	100.0%

A larger portion of responses were provided by males (56.7%) compared to females (43.3%) (Table 4-32). Observational and demographic data also suggests that respondents mainly visited in familial groups, however, visiting as individuals was also popular (28.1%) (Table 4-33). Over half (55.9%) of the respondents were non-locals, despite most (86.7%) being South Australians (Table 4-32, 4-33). Only 8.3% of respondents were from interstate locations, while 5% were international visitors (Table 4-33). Regardless of their origin, most visitations were single day trips (76.8%) but repeat visits for many (54.4%) (Table 4-33). International visitors primarily came from Canada, the United Kingdom, and New Zealand, while interstate visitors primarily came from the eastern states (Appendix C, Figure C-13). Intrastate visitors primarily came from the Greater Adelaide region, with some coming from as far east as Murray Bridge (Appendix C, Figure C-14, C-15).

Table 4-34 Descriptive statistics on the factors visitors to the Clipper Ship City of Adelaide *feel are important for their travel or holiday plans.*

	N	Minimum	Maximum	Mean	95% Lower CL for Mean	95% Upper CL for Mean
Friends and family	55	1	5	3.96	3.67	4.25
Heritage (museums, trails, experiences, etc.)	55	3	5	4.35	4.16	4.53
Entertainment (movies, theatre, sport, etc.)	55	1	5	3.02	2.71	3.31
Shopping (shops, malls, markets, etc.)	55	1	5	2.60	2.33	2.87
Hospitality (hotels, bars, restaurants, cafes, etc.)	55	2	5	3.71	3.48	3.93
Nature (parks, beaches, wildlife, etc.)	55	2	5	4.33	4.11	4.54

Respondents were questioned on which factors they consider important when travelling or making holiday plans. For visitors to the clipper ship, heritage and nature were generally considered extremely important (mean 4.35 and 4.33, respectively) (Table 4-34, Appendix C, Figure C-16 and Appendix D, Table D-3), while travelling with or to see family and friends was considered very important (mean 3.96). Unlike most of the other sites, hospitality considerations were also deemed very important (mean 3.71).

4.3.2 Economic Value

Visitor expenditure at the Clipper Ship *City of Adelaide* is based on reported trip spends from survey respondents. As previously explained (see Section 3.4.1), this was calculated from the average spend per person per day, the average number of visitation days, and the annual number of visitors (Appendix E). The results were then adjusted to control for outliers (see Section 3.4.1). The average spend per person per day at the site was $54.19 (Table 4-35). Furthermore, the average group size was 2.14 people (1.79 adults and 0.35 children) and the average number of days spent on-site was approximately 1.51.

Table 4-35 Average visitor expenditure per person per day for those visiting the Clipper Ship City of Adelaide.

	Count (n=)	Sum	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Days on site	57	86	1.51	1.15	1.86
Accommodation ($)	57	2,496	43.79	.52	87.06
Travel ($)	57	386	6.77	2.16	11.39
Food ($)	57	2,794	49.02	28.11	69.92
Activities ($)	57	1,924	33.75	25.53	41.98
Other ($)	57	2,382	41.79	-3.18	86.76
Total ($)	57	9,982	175.12	81.61	268.63
Adults	57	102	1.79	1.56	2.02
Children	57	20	.35	.10	.60
Total people	57	122	2.14	1.76	2.52

The Clipper Ship *City of Adelaide* keeps records of visitor numbers as well as tour numbers. Visitor numbers include anyone considered ‘engagement only’; visitors who may have just talked to the volunteers to learn about the vessel’s history, explored the gift shop, or occasionally bought items or donated money. Observational data notes suggest these interactions generally last from several seconds to half an hour. Despite the availability of these numbers, these types of visitors were not included in this study, as they did not experience the site enough to complete a survey. Consequently, surveys were only completed by those who participated in tours. It is therefore arguable that the estimated visitor numbers presented in this study is a conservative estimate of the site’s overall visitation. Nevertheless, the ship hosted 3,873 tour-goers over the course of the 2018-2019 financial year, with 18,821 ‘engagement only’ visitors. It should be noted, however, that even the reported number of annual tour visitors is likely to be underestimated as the recording method utilised by the Clipper Ship *City of Adelaide’s* tour system groups both ‘couples’ and ‘families’ under the ‘couples’ tour type. Effectively, a family of two adults and six children would be recorded as a ‘couple’, despite the presence of six additional individuals. This is due to the site’s pricing structure; only adults pay for entry to the vessel, and all children under the age of 18 enjoy free entry.

Nevertheless, annual direct visitor expenditure is calculated with the following equation (see Section 3.4 and Appendix E):

Total annual direct visitor expenditure	=	*Average daily visitor expenditure per person per day*	*X*	*Average length of stay (days)*	*X*	*Annual number of visitors per year*
$ 316,915.58	=	*$ 54.19*	*X*	*1.51*	*X*	*3,873*

Overall, respondents at the clipper ship identified their principal motivation for visiting the site as experiencing heritage (85.19%) (Table 4-36), while experiencing the site with friends and family was a distant secondary motivation (11.11%) (Table 4-36) despite some respondents reportedly taking visiting relatives to see the vessel. Only five respondents reported walking along the docks and visiting the ship out of curiosity. Following this trend, most respondents reported experiencing heritage assets (89.09%) as being important to their travel or holiday plans (Table 4-37).

Table 4-36 Main reason or motivation for visiting the Clipper Ship City of Adelaide (n=54).

Motivation	Responses	Percentage	Lower CL 95%	Upper CL 95%
Heritage	46	85.19%	73.40%	92.30%
Friends and Family	6	11.11%	5.19%	22.19%
Other	5	9.26%	4.02%	19.91%
Shopping	2	3.70%	1.02%	12.54%
Entertainment	0	0.00%	0.00%	6.64%
Hospitality	0	0.00%	0.00%	6.64%
Nature	0	0.00%	0.00%	6.64%

Table 4-37 Respondents' importance rating for factors important for their travel (n=55).

Attribute	Not Important	Neutral	Important
Friends and Family	6	8	41
Heritage	0	6	49
Entertainment	18	18	19
Shopping	24	21	10
Hospitality	4	17	34
Nature	2	5	48

Table 4-38 Activities undertaken during their visit to the Clipper Ship City of Adelaide (n=51).

Activity	Responses	Percentage	Lower CL 95%	Upper CL 95%
Heritage	45	88.24%	76.62%	94.49%
Hospitality	18	35.29%	23.63%	49.01%
Other	16	31.37%	20.33%	45.03%
Entertainment	3	5.88%	2.02%	15.92%
Nature	3	5.88%	2.02%	15.92%
Shopping	1	1.96%	0.35%	10.30%
Friends and Family	1	1.96%	0.35%	10.30%

Activities undertaken by visitors to the Clipper Ship *City of Adelaide* principally related to experiencing the site's unique heritage (88.24%), while only 35.29% also visited hospitality destinations for 'lunch', 'coffee', 'ice cream', or 'dinner' (Table 4-38). Other activities commonly undertaken by respondents included exploring the rest of Port Adelaide (either on foot or driving) and photography. As with other sites, visiting the area surrounding the site can arguably be labelled a 'heritage' or 'nature' activity, however, unless respondents specifically mentioned the heritage or natural elements of the area, this was not an assumed quantity.

Based on the above percentages (85.19% of respondents indicating that cultural heritage was the main reason for visiting, with 89.09% of respondents rating heritage and cultural heritage as 'important' or 'very important' and 88.24% of respondents engaging in activities involving cultural heritage places, assets, or features), the attribution factor for the Clipper Ship *City of Adelaide* is 87.51%. This means that 87.51% of the total expenditure, or $277,332.82 of the total annual expenditure of $316,915.58, can be considered *targeted*, or money spent in pursuit of visiting the maritime cultural heritage material located at the site. This was calculated with the following equation:

Total annual attributable visitor expenditure	=	*Total annual direct visitor expenditure*	*X*	*Attribution factor (%)*
$ 277,332.82	=	*$ 316,915.58*	*X*	*87.51%*

4.3.3 Sociocultural Value

Like most of the sites included in this study, almost every respondent at the Clipper Ship *City of Adelaide* reported experiencing a form of emotional connection or attachment to the site

(Table 4-39, Appendix C, Figure C-17, Appendix F, Table F-5 and Appendix G, Table G-3). Unlike the South Australian Maritime Museum or Garden Island Shipwreck Graveyard, however, visitors to the Clipper Ship *City of Adelaide* primarily expressed attachment though a generalised mixture of place affect, place dependence, and place identity (mean 3.67, 3.63, and 3.63 respectively), with social bonding trailing behind slightly (mean 3.27) (Table 4-39). This could be due to several factors. The first is the age range of most visitors. Most respondents at the site were older and generally more inclined to travel specifically to see heritage sites (Table 4-32, 4-36, 4-37, 4-38). Several international visitors commented that they visited Adelaide specifically to see Clipper Ship *City of Adelaide* because they were either stationed on it during their armed forces training or remembered seeing it docked in the United Kingdom. Such connections tend to be more internalised; consequently, a greater number of visitors to Clipper Ship *City of Adelaide* are likely less reliant on social bonding to cultivate a cultural connection to the vessel. Considering these individual attachment scores as a single overall score of emotional connection, visitors to the Clipper Ship *City of Adelaide* have an average place attachment score of 3.55.

Table 4-39 Mean scores of the amalgamated place attachment dimensions from visitors to the Clipper Ship City of Adelaide.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average score of Place Dependence	60	3.63	3.40	3.86
Average score of Place Affect	60	3.67	3.36	3.98
Average score of Place Identity	60	3.63	3.30	3.96
Average score of Place Social Bonding	60	3.27	2.97	3.57

Interviewees principally reported their *place attachment types* as place identity (mean 5.00) and place affect (mean 4.82) rather than place social bonding (mean 4.67) and place dependence (mean 4.00) (Table 4-40), though both types still scored highly. Furthermore, interviewees were more likely to undertake ‘high effort’ behaviour (mean 5.00) than ‘low effort’ behaviour (mean 4.89) (Table 4-42). This is likely due to the operational model used by the caretaking organisation to which all interviewees were already attached; because the vessel is currently administered to by volunteers (a ‘high effort’ behaviour), it seems likely that most interviewees would already have a substantial investment in the site, one consistently reinforced by the act of volunteering itself.

Table 4-40 Mean scores of the amalgamated place attachment dimensions from visitors to the Clipper Ship City of Adelaide.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Place Dependence	11	4.00	3.46	4.54
Average of Place Affect	11	4.82	4.55	5.09
Average of Place Identity	11	5.00	5.00	5.00
Average of Place Social Bonding	11	4.67	4.38	4.95

Correlation tests were also conducted to explore the relationships between *place attachment type* and the behavioural intentions of survey respondents. The same tests were not conducted with interviewee data, as the sample size was too small to produce results. The test revealed a positive correlation between all *place attachment types* and each *behavioural intentions type*. While the strength of the correlation varies for each measured variable, this test once again demonstrates that the 'stronger' an emotional connection was, the more likely respondents were to engage in pro-heritage and pro-environmental behaviours. For Clipper Ship *City of Adelaide*, place dependence and 'low effort' behaviours and place affect and 'low effort' behaviours have a medium strength or typical correlation (0.30–0.49), while place identity and 'high effort' behaviours have a much larger than typical correlation (0.70–1.0). The remaining combinations have a larger than typical correlation (0.50–0.69) (Table 4-43) (Leech et al. 2005, p. 56).

Table 4-41 Mean scores of the amalgamated place attachment dimensions from visitors to the Clipper Ship City of Adelaide.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Low effort behavioural intentions questions (excluding L2)	60	4.39	4.18	4.59
Average of High effort behavioural intentions questions	60	3.44	3.08	3.79

It seems there is validity to the belief that people who connect with or care about sites will generally take steps to protect them, at least in the case of Clipper Ship *City of Adelaide*. Most of the site's 30 plus volunteer force began as casual visitors, then as their investment in the

site grew, all became regular volunteers, many of whom claim years of service. Respondents were more likely to undertake both 'low effort' (mean 4.39) and 'high effort' (mean 3.44) behaviours, albeit with a preference for 'low effort' (Table 4-41, Appendix C, Figure C-18, Appendix F, Table F-6 and Appendix G, Table G-3). On a granular basis, place identity strongly (and almost perfectly) positively correlated with an intention to undertake 'high effort' behaviours (0.700). Arguably, then, the site is primed to capitalise on increasing its ability to project a sense of place identity, representing one of the last physical links with colonial immigration to South Australia. Potentially including computers on board or nearby designed to allow people access to genealogical data may help to realise the site's potential pull. Notably this data was collected when the vessel was anchored in Dock One, prior to its relocation to Dock Two. This move, part of a larger governmental plan to turn Dock Two into a maritime precinct, may also incidentally reinforce place identity formation for some visitors, given the future (proposed) addition of contextually historical material. However, more work will be required to understand if the precinct's development does, in fact, affect place attachment strength.

Table 4-42 Mean scores of the amalgamated place attachment dimensions from visitors to the Clipper Ship City of Adelaide.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Low Effort Behaviours	11	4.89	4.71	5.06
Average of High Effort Behaviours	11	5.00	5.00	5.00

Regardless, any method that successfully increases Clipper Ship *City of Adelaide's* ability to catalyse place attachment will increase the likelihood visitors will engage in pro-heritage and pro-environmental behaviour. However, specifically targeting place identity and social bonding may have the added bonus of increasing the chance visitors will engage in 'high effort' behaviours specifically. Additionally, all correlation combinations have a significance value of less than 0.01 (sig. (2-tailed)), indicating that the results are statistically significant and exist within the entire population, not just the measured sample.

Table 4-43 Correlations between the place attachment factors and the behavioural factors for the Clipper Ship City of Adelaide.

Spearman's rho				Average of Low effort behavioural intentions	Average of High effort behavioural intentions
Average score of Place Dependence	Correlation Coefficient			**.408****	**.594****
	Sig. (2-tailed)			.002	.000
	N			54	54
	Bootstrap[c]	Bias		-.005	-.007
		Std. Error		.125	.104
		95% Confidence Interval	Lower	.138	.355
			Upper	.628	.769
Average score of Place Affect	Correlation Coefficient			**.451****	**.566****
	Sig. (2-tailed)			.001	.000
	N			54	54
	Bootstrap[c]	Bias		-.004	-.003
		Std. Error		.119	.105
		95% Confidence Interval	Lower	.197	.340
			Upper	.664	.749
Average score of Place Identity	Correlation Coefficient			**.541****	**.700****
	Sig. (2-tailed)			.000	.000
	N			54	54
	Bootstrap[c]	Bias		-.006	-.005
		Std. Error		.104	.086
		95% Confidence Interval	Lower	.314	.504
			Upper	.720	.839
Average score of Place Social Bonding	Correlation Coefficient			**.558****	**.658****
	Sig. (2-tailed)			.000	.000
	N			54	54
	Bootstrap[c]	Bias		-.007	-.004
		Std. Error		.101	.108
		95% Confidence Interval	Lower	.328	.422
			Upper	.726	.843

**. Correlation is significant at the 0.01 level (2-tailed).

c. Unless otherwise noted, bootstrap results are based on 5000 bootstrap samples

4.3.4 Interviews

In terms of interviews, Clipper Ship *City of Adelaide* had a relatively large response rate, possibly because of the ship's relative fame. Eleven interviews were conducted with volunteers who professed a 'connection to' or 'investment in' the clipper ship. Of these, five volunteers were females (45.5%) and six were male (54.5%) (Table 4-44). All interviewees were over the age of 55, with most identifying as retirees.

Table 4-44 Demographics of interviewees for the Clipper Ship City of Adelaide.

		Count	Column N %
What is your sex?	Male	6	54.5%
	Female	5	45.5%
	Other	0	0.0%
	Total	11	100.0%
What age group are you?	18 - 24	0	0.0%
	25 - 34	0	0.0%
	35 - 44	0	0.0%
	45 - 54	0	0.0%
	55 - 64	1	9.1%
	65 +	10	90.9%
	Total	11	100.0%

Table 4-45 Descriptive statistics on the factors interviewees for the Clipper Ship City of Adelaide *feel are important for their travel and holiday plans.*

	N	Minimum	Maximum	Mean	95% Lower CL for Mean	95% Upper CL for Mean
Friends and family	11	3	5	4.18	3.52	4.84
Heritage (museums, trails, experiences, etc.)	11	3	5	4.64	4.18	5.09
Entertainment (movies, theatre, sport, etc.)	11	1	4	2.36	1.61	3.12
Shopping (shops, malls, markets, etc.)	11	1	3	1.55	0.99	2.10
Hospitality (hotels, bars, restaurants, cafes, etc.)	11	2	5	3.45	2.76	4.15
Nature (parks, beaches, wildlife, etc.)	11	4	5	4.55	4.19	4.90

Interviewees reported that, overall, experiencing cultural heritage was extremely important to their travel plans (mean 4.64) (Table 4-45). Like survey respondents, experiencing nature and travelling with or to see friends and family were also very important factors. Interviewees were also asked about their perspectives on the economic impacts of tourism; specifically, they were asked how much they think the average person would spend to visit the site, and if having an economic spend is more important than visitors having an engaging and meaningful experience. Overall, interviewees *overestimated* the average spend of visitors to the site at a figure of $69.09. Despite most of the interviewees being volunteers at the vessel, (82%) believe that 'enjoying the site and getting a meaningful experience' is *just* as important as visitors 'spending money', while the remaining 18% believe enjoying the site and getting a meaningful experience is *more* important that visitors spending money. No interviewee believed that spending money at the site was more important than getting a quality experience. As with the South Australian Maritime Museum, the nature of the connections interviewees expressed regarding the Clipper Ship *City of Adelaide* were intricately bespoke, and the results cannot be extrapolated to casual visitors. Indeed, some connections were even formed through direct familial lineage from crew members and others through the loss of loved ones, which is generally not broadly applicable. Nevertheless, the information collected via interviews was insightful, if of a wholly different nature to goal of this study.

4.3.5 Discussion

Clipper Ship *City of Adelaide's* average visitor is a South Australian travelling in a familial group for a single day trip. The slight majority are return visitors for whom heritage is an extremely important factor in their travel plans. Regardless, all visitors are motivated to experience the heritage and history of the clipper ship, and most do so. Disregarding group composition, visitors spend an average of $54.19 per person, totalling $316,915.58 in direct attributable expenditure annually. In terms of place attachment theory, Clipper Ship *City of Adelaide* is like the Garden Island Shipwreck Graveyard in that it does not mirror the place social bonding trend of the other four sites. In all four other sites, place bonding positively correlates more strongly with 'low effort' behaviours than 'high effort' behaviours. For the clipper ship, however, place social bonding has a stronger correlation with 'high effort' behaviours (0.658) than 'low effort' behaviours (0.558). It may be that, because Clipper Ship *City of Adelaide* represents a museum style environment similar to the South Australian Maritime Museum, respondents *assumed* the presence of a protective body managing the site, subconsciously hypothesised that engaging in 'high effort' behaviours would be easier and more socially rewarding (i.e., already facilitated). This was not observed in the data set collected for the South Australian Maritime Museum, however.

Interestingly, in cases where respondents noted that the protective body was volunteer based, they tended to vocalise their lack of availability to assist with ‘high effort’ behaviours. While this is consistent with other types of place attachment, it would also appear to contradict the place bonding results. A possible explanation may be that social response bias influenced the outcome, given that most respondents participated in the survey in view of volunteers. It should also be noted that, of those who participated in interviews at the site, most were casual visitors at one point in time. It may be that place identity’s strength at the site (and place bonding’s apparent intensified effect) is the result of a closed system in which those heavily invested in the site come to view it as essential for both their social identity (i.e., as an active member of a humanitarian effort to preserve heritage) and their social group (i.e., the like-minded contemporaries who also engage in the effort). Nevertheless, and while these variations from the overall trend present an interesting point of contention, both the ‘low effort’ (mean 4.39) and ‘high effort’ (mean 3.44) behavioural indicator scores positively correlated with the strength of experienced place attachment, reaffirming an ultimately beneficial relationship.

It is difficult to determine exactly why Clipper Ship *City of Adelaide* manages to encourage such strong behavioural responses while only producing middling (though still positive) place attachment in visitors. It may be that the ship’s tour, which comprises both historical lessons and an interactive walk-through that lets guests crawl around the vessel like a sailor might have (albeit much more safely), provides an atmosphere conducive to igniting the mystique and romanticism of an ocean voyage; an atmosphere that is perhaps more persuasive than any other on offer across the six surveyed sites. Alternatively, the volunteers and the material on-site do focus strongly on the ship’s early influence on the Adelaide colony, and visitors are exposed to a number of ‘origin stories’ regarding locally recognisable lineages and companies (as an example of both, Bickford’s Cordial features prominently in the ship’s history). The ubiquity of ‘narrative’ and the cohesive, comprehensive manner in which it is delivered may explain why Clipper Ship *City of Adelaide* appears to function so successfully as a pro-heritage and pro-environmental behaviour-inducing example of a site; a place where cultural heritage and tourism arguably merge into a practicable whole. Whatever the case, the results suggest that stimulating such behaviour may not always require the instilment of consistently strong forms of place attachment after all.

4.4 Port Willunga

4.4.1 Visitor Profile

At Port Willunga, 123 visitors participated in surveys, 72 of which were completed face-to-face. All the surveys completed on-site were *fully* completed, while online completions ranged from *partially* to *fully* complete (Table 4-46 and Appendix B, Figure B-15, B-16, B-17, B-18).

Table 4-46 Surveys completed for Port Willunga.

		Response Type		
		Online	On Site	Total
		Count (n=)	Count (n=)	Count (n=)
Stage complete	Opened never completed	0	0	0
	Information sheet	1	0	1
	Demographics	4	0	4
	Economic	0	0	0
	Site activities	2	0	2
	Social (fully complete)	44	72	116
	Total	51	72	123

Table 4-47 Basic demographics of survey responses for Port Willunga.

Characteristics		Count (n=)	Column N %
What gender do you identify as?	Male	48	39.0%
	Female	75	61.0%
	Non-binary	0	0.0%
	Total	123	100.0%
What is your age?	18-24	2	1.6%
	25-34	16	13.0%
	35-44	24	19.5%
	45-54	25	20.3%
	55-64	27	22.0%
	65+	29	23.6%
	Total	123	100.0%
Do you identify as "local" to this location?	Yes	70	57.4%
	No	52	42.6%
	Total	122	100.0%

Table 4-48 Characteristics of respondents' trip pattern for Port Willunga.

		Count	Column N %
Postcode visitor type	South Australian	114	92.7%
	Interstate	8	6.5%
	International	1	0.8%
	Total	123	100.0%
Days continuously visiting site	Single day	79	68.1%
	Trip with overnight stay	9	7.8%
	Trip with two or more overnight stays	28	24.1%
	Total	116	100.0%
During your visit to this location, did you travel as or with:	Individual	21	17.8%
	Family	83	70.3%
	Friends	13	11.0%
	A larger group	1	0.8%
	Total	118	100.0%
Is this your first visit to this location?	Yes	11	9.3%
	No	107	90.7%
	Total	118	100.0%

A large portion of responses were provided by females (61%) compared to males (39%) (Table 4-47). Respondents varied in age, with fewer respondents overall from the lowest age brackets (Table 4-47). Over half of all respondents (57.4%) identified as local to the area, with most (92.7%) identifying as South Australians from the Greater Adelaide region (Table 4-48 and Appendix C, Figure C-20, C-21). Most respondents travelled in family groups (70.3%) for a single day trip (68.1%), and the vast majority (90.7%) were repeat visitors (Table 4-48). Notably, nearly a quarter of respondents (24.1%) stayed for more than two nights. Port Willunga had one international survey respondent from New Zealand and eight interstate respondents from the east coast (Table 4-48 and Appendix C, Figure C-19). Respondents were questioned on which factors they consider important when travelling or making holiday plans. For Port Willunga, 'nature' was considered 'extremely important' (mean 4.55), with friends and family being the next most pertinent factor (mean 4.31) (Table 4-49, Appendix C, Figure C-22 and Appendix D, Table D-4). Heritage was considered the third most important factor (mean 3.61) (Table 4-49).

Table 4-49 Descriptive statistics on the factors visitors to Port Willunga feel are important for their travel or holiday plans.

	N =	Minimum	Maximum	Mean	95% Lower CL for Mean	95% Upper CL for Mean
Friends and family	118	1	5	4.31	4.12	4.49
Heritage (museums, trails, experiences, etc.)	118	1	5	3.61	3.43	3.79
Entertainment (movies, theatre, sport, etc.)	118	1	5	2.75	2.54	2.95
Shopping (shops, malls, markets, etc.)	118	1	5	2.49	2.27	2.71
Hospitality (hotels, bars, restaurants, cafes, etc.)	118	1	5	3.54	3.35	3.74
Nature (parks, beaches, wildlife, etc.)	118	3	5	4.55	4.45	4.65

4.4.2 Economic Value

Visitor expenditure at Port Willunga is based on reported trip spends from survey respondents. As previously explained (see Section 3.4.1), this was calculated from the average spend per person per day, the average number of visitation days, and the annual number of visitors (Appendix E). The results were then adjusted to control for outliers (see Section 3.4.1). The average spend per person per day at Port Willunga was $44.22 (Table 4-50). Furthermore, the average group size was 2.72 people (2.11 adults and 0.61 children) and the average number of days spent on-site was approximately 1.85.

Table 4-50 Average visitor expenditure per person per day for those visiting Port Willunga.

	Count (n=)	Sum	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Days on site	116	215	1.85	1.54	2.16
Accommodation ($)	116	9,400	81.03	15.06	147.01
Travel ($)	116	2,868	24.72	-9.50	58.95
Food ($)	116	13,057	112.56	51.51	173.60
Activities ($)	116	399	3.44	-.56	7.44
Other ($)	116	90	.78	-.14	1.69
Total ($)	116	25,814	222.53	98.98	346.08
Adults	116	245	2.11	1.85	2.38
Children	116	71	.61	.42	.80
Total people	116	316	2.72	2.39	3.05

Of all six selected maritime cultural heritage sites, Port Willunga is the only one that does not collect, monitor, or keep visitation records *of any kind*. While the City of Onkaparinga *did* report a district wide annual visitation of 1.2 million in 2017 (City of Onkaparinga 2019), this figure fails to delineate visitor numbers to any specific region or area. Estimations must therefore be based on observational data, which is further confounded by the site's sometimes drastic seasonal variation. On 'nice' summer days during school holidays, public holidays, and weekends, Port Willunga can experience upwards of 400 plus unique visitors per day. On mid-weekdays during winter with less than pleasant weather (stormy seas, rain), on the other hand, Port Willunga may only experience 50 or so unique visitors, even despite the fact that some respondents reported visiting the beach regularly regardless of weather. Because visitation is so variable, calculating exact visitor numbers is impossible; instead, this study operated under a conservative estimate of annual visitation at 40,000 people.

The annual direct visitor expenditure is calculated with the following equation (see Section 3.4 and Appendix E):

Total annual direct visitor expenditure	=	*Average daily visitor expenditure per person per day*	*X*	*Average length of stay (days)*	*X*	*Annual number of visitors per year*
$ 3,272,280.00	=	*$ 44.22*	*X*	*1.85*	*X*	*40,000*

Respondents at Port Willunga identified a range of physical activities as their key motivation for visiting the foreshore (58.47%) (Table 4-51), including walking (most commonly dog walking), swimming, photography, snorkelling, reading, relaxing, general exercise, and 'to cool down in hot weather'. Experiencing the natural elements of the site (specifically the water and the beach in general) was the second highest motivating factor (33.05%), with 'friends and family' ranking as the third highest motivator (28.81%) (Table 4-51). It should be noted that despite 'friends and family' ranking behind both nature and physical activity, many respondents still remarked that 'taking (grand)children to the great family friendly beach' was something they engaged in. Experiencing the heritage assets at the site was a motivator for only 23.73% of respondents, though almost all consider heritage features and assets as 'important' for their travel and holidays (Table 4-52). Like on other sites, respondents reporting specific motivators like 'walking [the] dog' were coded as 'other', while only those who mentioned heritage assets were coded accordingly. Nearly all respondents at Port Willunga

considered nature the most important factor when making holiday or travel plans, while only 55.93% considered heritage assets as 'important' (Table 4-52).

Table 4-51 Main reason or motivation for visiting Port Willunga (n=118).

Motivation	Responses	Percentage	Lower CL 95%	Upper CL 95%
Other	69	58.47%	49.45%	66.96%
Nature	39	33.05%	25.22%	41.95%
Friends and Family	34	28.81%	21.41%	37.55%
Heritage	28	23.73%	19.96%	32.16%
Hospitality	14	11.86%	7.20%	18.93%
Entertainment (Movies)	0	0.00%	0.00%	3.15%
Shopping	0	0.00%	0.00%	3.15%

Table 4-52 Respondent's importance rating for factors important for their travel (n=118).

Attribute	Not Important	Neutral	Important
Friends and Family	8	13	97
Heritage	14	38	66
Entertainment	49	39	30
Shopping	63	29	26
Hospitality	17	34	67
Nature	4	0	114

Table 4-53 Activities undertaken during their visit to Port Willunga (n=117).

Activity	Responses	Percentage	Lower CL 95%	Upper CL 95%
Other	109	93.16%	87.09%	96.49%
Hospitality	42	35.90%	27.78%	44.91%
Nature	29	24.79%	17.85%	33.33%
Heritage	21	17.95%	12.05%	25.89%
Friends and Family	9	7.69%	4.10%	13.97%
Shopping	6	5.13%	2.37%	10.74%
Entertainment	0	0.00%	0.00%	3.18%

Unsurprisingly, most respondents reported engaging in physical activities (93.16%) (Table 4-53), including swimming, walking, reading, relaxing/unwinding, snorkelling, photography, and beach cricket. Additionally, picnics, lunch, and coffee catchups were common responses for respondents who reported participating in hospitality activities (35.90%). A smaller percentage of respondents reported engaging in nature driven activities (24.79%), included playing in the sand, taking photographs of the scenery and wildlife, and enjoying the water. Only 17.95% of respondents specifically mentioned activities that directly involved the site's cultural heritage assets (Table 4-53).

Based on the above percentages (58.47% of respondents indicating that cultural heritage was the main reason for visiting, with 55.93% of respondents rating heritage and cultural heritage as 'important' or 'very important' and 17.95% of respondents engaging in activities involving cultural heritage places, assets, or features), the attribution factor for Port Willunga is 44.12%. This means that 44.12% of the total expenditure, or $1,443,729.93 of the total annual expenditure of $3,272,280.00, can be considered *targeted*, or money spent in pursuit of visiting the maritime cultural heritage material located at the site. This was calculated with the following equation:

Total annual attributable visitor expenditure	=	*Total annual direct visitor expenditure*	*X*	*Attribution factor (%)*
$ 1,443,729.93	=	*$ 3,272,280.00*	*X*	*44.12%*

4.4.3 Sociocultural Value

As expected, most respondents at Port Willunga reported experiencing a form of emotional connection to the site (Table 4-54, Appendix C, Figure C-23, Appendix F, Table F-7 and Appendix G, Table G-4). The most prevalent type of place attachment among respondents was place social bonding (mean 4.26), followed by place identity (mean 4.16), place dependence (mean 4.14), and place affect (mean 3.88) (Table 4-54). Overall, Port Willunga returned the strongest reported presence of place attachment of all six sites (though this did not have a significant impact on *behavioural intentions type*). The relative depth of place attachment could be due to the high number of regular and long-term individual visitation to the site (with over 90% of respondents being return visitors [Table 4-48]). The prominence of place social bonding is also unsurprising, given the preponderance of water-based activities (Table 4-53) as primary motivators (Table 4-51) in conjunction with the beach as a generally

'family friendly' location. Nevertheless, *all place attachment types* scored highly at Port Willunga. Indeed, when considering all *place attachment types* as an average overall place attachment score, visitors to Port Willunga had the highest levels of emotional attachment at 4.11.

Table 4-54 Mean scores of the amalgamated place attachment dimensions from visitors to Port Willunga.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average score of Place Dependence	122	4.14	3.98	4.30
Average score of Place Affect	122	3.88	3.64	4.11
Average score of Place Identity	122	4.16	3.95	4.36
Average score of Place Social Bonding	122	4.26	4.09	4.44

Interviewees also reported experiencing strong connections with the site across all *place attachment types* (Table 4-55), with place social bonding and place identity peaking *higher* than for survey respondents (mean 4.93). This is likely due to the majority of interviewees being residents of the Port Willunga area (at least at some point in time). For many, the foreshore environment has become a fundamental part of their everyday lives, a place where they take family, meet with friends, and walk daily.

Table 4-55 Mean scores of the amalgamated place attachment dimensions from interviewees to Port Willunga.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Place Dependence	9	4.70	4.35	5.05
Average of Place Affect	9	4.89	4.63	5.15
Average of Place Identity	9	4.93	4.81	5.04
Average of Place Social Bonding	9	4.93	4.81	5.04

Respondents at Port Willunga were more likely to engage in 'low effort' behaviours (mean 4.70) than 'high effort' behaviours (mean 3.39) (Table 4-56, Appendix C, Figure C-24, Appendix F, Table F-8 and Appendix G, Table G-4). This conforms with the majority of other sites, suggesting that factors like motivation and determination may play a mediating role in

behavioural intentions; many visitors can engage in ‘low effort’ behaviour in the moment, while many may lack the time or inclination to engage in ‘high effort’ activities, like attending local meetings.

Table 4-56 Mean scores of the amalgamated behavioural intention factors from visitor to Port Willunga.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Low effort behavioural intentions questions (excluding L2)	122	4.70	4.62	4.79
Average of High effort behavioural intentions questions	122	3.39	3.15	3.62

Table 4-57 Mean scores of the amalgamated behavioural intention factors from interviewees to Port Willunga.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Low Effort Behaviours	9	5.00	5.00	5.00
Average of High Effort Behaviours	9	4.96	4.88	5.05

Interviewees are also more inclined to engage in ‘low effort’ behaviour (mean 5.00) than ‘high effort’ behaviour (mean 4.96), though the difference is marginal (Table 4-57). Once again, this may be due to the symbiotic relationship many interviewees have with Port Willunga’s foreshore. Travelling to the beach every day and participating in behaviour like ‘picking up rubbish’ and ensuring people are leaving the wildlife alone are ‘low effort’ behaviours already persistently conducted during their daily lives. Interviewees were, however, *still* more likely to participate in ‘high effort’ behaviour as well.

Correlation tests were also conducted to explore the relationships between *place attachment type* and the behavioural intentions of survey respondents. The same tests were not conducted with interviewee data, as the sample size was too small to produce results. The test revealed a positive correlation between all *place attachment types* and each *behavioural intentions type*, once again demonstrating that the deeper the experience of place attachment, the more likely visitors are to engage in pro-heritage and pro-environmental behaviour. At Port Willunga, place social bonding correlated strongly with ‘low effort’ behaviour, while the other *place attachment types* correlated strongly with ‘high effort’ behaviour (Table 4-58).

Table 4-58 Correlations between the place attachment factors and the behavioural factors for Port Willunga.

Spearman's rho				Average of Low effort behavioural intentions	Average of High effort behavioural intentions
Average score of Place Dependence	Correlation Coefficient			**.321****	**.535****
	Sig. (2-tailed)			.000	.000
	N			116	116
	Bootstrap[c]	Bias		-.003	-.003
		Std. Error		.090	.070
		95% Confidence Interval	Lower	.133	.388
			Upper	.488	.659
Average score of Place Affect	Correlation Coefficient			**.306****	**.568****
	Sig. (2-tailed)			.001	.000
	N			116	116
	Bootstrap[c]	Bias		-.002	-.002
		Std. Error		.089	.063
		95% Confidence Interval	Lower	.128	.432
			Upper	.473	.679
Average score of Place Identity	Correlation Coefficient			**.272****	**.512****
	Sig. (2-tailed)			.003	.000
	N			116	116
	Bootstrap[c]	Bias		-.003	-.002
		Std. Error		.094	.073
		95% Confidence Interval	Lower	.081	.354
			Upper	.445	.646
Average score of Place Social Bonding	Correlation Coefficient			**.463****	**.277****
	Sig. (2-tailed)			.000	.003
	N			116	116
	Bootstrap[c]	Bias		-.001	-.003
		Std. Error		.086	.092
		95% Confidence Interval	Lower	.284	.090
			Upper	.623	.451

**. Correlation is significant at the 0.01 level (2-tailed).

c. Unless otherwise noted, bootstrap results are based on 5000 bootstrap samples

4.4.4 Interviews

Interviewee responses for Port Willunga were relatively few when compared to other selected sites. Just nine people participated, five of whom were female and four of whom were male (Table 4-59). Interviewees considered nature (mean 4,89), heritage (mean 4.44), and friends and family (mean 4.33) the three most important factors when planning to travel or go on holiday (Table 4-60).

Table 4-59 Demographics of interviewees for Port Willunga.

		Count (N =)	Column (N %)
What is your sex?	Male	4	44.4%
	Female	5	55.6%
	Other	0	0.0%
	Total	9	100.0%
What age group are you?	18 - 24	0	0.0%
	25 - 34	2	22.2%
	35 - 44	0	0.0%
	45 - 54	2	22.2%
	55 - 64	2	22.2%
	65 +	3	33.3%
	Total	9	100.0%

Table 4-60 Descriptive statistics on the factors interviewees for Port Willunga feel are important for their travel and holiday plans.

	N =	Minimum	Maximum	Mean	95% Lower CL for Mean	95% Upper CL for Mean
Friends and family	9	3	5	4.33	3.79	4.88
Heritage (museums, trails, experiences, etc.)	9	3	5	4.44	3.89	5.00
Entertainment (movies, theatre, sport, etc.)	9	2	3	2.33	1.95	2.72
Shopping (shops, malls, markets, etc.)	9	1	3	1.67	1.12	2.21
Hospitality (hotels, bars, restaurants, cafes, etc.)	9	1	5	2.89	1.99	3.79
Nature (parks, beaches, wildlife, etc.)	9	4	5	4.89	4.63	5.15

Interviewees were also asked to share their perspective on the economic impacts of tourism to Port Willunga. Specifically, they were asked how much they think the average person would spend to visit the site, and if having an economic spend is more important than visitors having an engaging and meaningful experience. Overall, interviewees significantly *overestimated* a visitor's average spend, citing an average daily figure of $72.72. Despite overestimating how much visitors spend at the foreshore, most interviewees (67%) believe that 'enjoying the site and getting a meaningful experience' is just as important as visitors 'spending money' to see the site, while the remaining 33% believe enjoying the site and getting a meaningful experience is more important than spending money. No interviewee believed that spending money at the site was more important than getting a quality experience.

4.4.5 Discussion

The average visitor to Port Willunga is a South Australian travelling in a familial group for a single day trip. Most are repeat visitors for whom nature and natural assets are a key consideration for their travel plans. Visitors to Port Willunga are often motivated to see the foreshore by their desire to witness nature and engage in physical activities. Regardless of group composition and size, visitors spend an average of $44.22 per person per day, totalling $3,272,280.00 in direct expenditure annually. Port Willunga's sociocultural value seems to be a community construct; of all six sites, respondents at Port Willunga reported the strongest levels of place attachment (and across all types of place attachment). The strongest connection appeared to be related to place social bonding (4.26), while the weakest connection appeared to be related to place affect (3.88). These numbers make sense, as the majority of casual visitors are from the surrounding area, consequently making Port Willunga the 'local beach' to many.

Due to this, the likelihood of causal visitors engaging in 'low effort' pro-heritage and pro-environmental behaviour is again the highest reported across all six sites (4.70), with Garden Island (4.68) and Rapid Bay (4.65) coming in second and third, respectively (Table 4-56, 4-26, and 4-86, respectively). This is not the case with 'high effort' behaviour, however, with respondents at Clipper Ship *City of Adelaide* reporting a higher overall predilection (3.44) for 'high effort' behaviour than those at Port Willunga (3.39) (Table 4-41 and 4-56 respectively). This might be explained by the prominence of place social bonding, which was high at Port Willunga (4.26) relative to Clipper Ship *City of Adelaide* (3.27) (Table 4-54 and 4-39 respectively). Perhaps this reflects the more 'do what you want' (with or without friends and family) vibe of a public beach versus a curated experience, which, in turn, encourages a more casual approach to pro-heritage and pro-environment behaviour. Indeed, many respondents

remarked that they go to Port Willunga because it is ‘a safe family friendly beach’, where ‘the kids can just enjoy themselves’, and ‘the adults can relax’. This also bled into respondents’ takes on some of the behavioural intentions question sets. For example, when confronted with the ‘tell others to put their rubbish in the bin’ behaviour, several respondents remarked that they would use such an incident as a good opportunity to teach their children about appropriate waste disposal and why it is important.

Additionally, while the L2 (‘learn about local history’) behavioural question was removed from the final analysis (see Section 5.3 for details), several respondents remarked that if local history was more readily available at the site, they would be inclined to learn more. Other respondents pointed out or named specific features of the landscape they wanted to learn more about, with many stating that it would be nice to know more about the Indigenous history of the site. With nothing on-site, however, they confirmed they were unlikely to go home and learn more about it in their own time. In fact, respondents enthusiastically requested such information from the researcher. While this was always supplied verbally, multiple respondents commented that they were surprised to finally know something of the site, having been visiting for months or years without knowledge of the site’s aboriginal and maritime history. Some even expressed shock regarding the nature of the dugout boat caves, giving them a new appreciation for the site. Anecdotally, constructing onsite signage that does not take away from the natural features of the site could prove beneficial to the local community and visitors to the site, and has the potential to markedly increase people’s place attachment even further.

4.5 Ex-*HMAS Hobart*

4.5.1 Visitor Profile

Of all six sites *ex-HMAS Hobart* was objectively the most inaccessible. As a result, only 26 visitors participated in surveys, and all surveys were conducted online (Table 4-61 and Appendix B, Figure B-19, B-20, B-21, B-22).

Table 4-61 Surveys completed for ex-HMAS Hobart.

		Response Type		
		Online	On Site	Total
		Count (n=)	Count (n=)	Count (n=)
Stage complete	Opened never completed	0	0	0
	Information sheet	0	0	0
	Demographics	2	0	2
	Economic	2	0	2
	Site activities	1	0	1
	Social (fully complete)	21	0	21
	Total	26	0	26

Table 4-62 Basic demographics of survey responses for ex-HMAS Hobart.

Characteristics		Count (n=)	Column N %
What gender do you identify as?	Male	20	76.9%
	Female	6	23.1%
	Non-binary	0	0.0%
	Total	26	100.0%
What is your age?	18-24	3	11.5%
	25-34	5	19.2%
	35-44	6	23.1%
	45-54	5	19.2%
	55-64	7	26.9%
	65+	0	0.0%
	Total	26	100.0%
Do you identify as "local" to this location?	Yes	4	15.4%
	No	22	84.6%
	Total	26	100.0%

Table 4-63 Characteristics of respondents' trip pattern for ex-HMAS Hobart.

		Count (N=)	Column (N %)
Postcode visitor type	South Australian	23	92.0%
	Interstate	2	8.0%
	International	0	0.0%
	Total	25	100.0%
Days continuously visiting site	Single day	17	73.9%
	Trip with overnight stay	2	8.7%
	Trip with two or more overnight stays	4	17.4%
	Total	23	100.0%
During your visit to this location, did you travel as or with:	Individual	8	33.3%
	Family	2	8.3%
	Friends	7	29.2%
	A larger group	7	29.2%
	Total	24	100.0%
Is this your first visit to this location?	Yes	9	37.5%
	No	15	62.5%
	Total	24	100.0%

The majority of responses were provided by males (76.9%) with less than a quarter (23.1%) provided by females (Table 4-62). All respondents were between the ages of 18 and 64, with most falling into the higher age brackets of 35 to 64 (Table 4-62). This is likely due to the physical requirements of diving at the site. Two respondents came from interstate locations (Table 4-63 and Appendix C, Figure C-25), with the remaining 92% coming from around South Australia, principally the Greater Adelaide region (Appendix C, Figure C-26, C-27). Regardless, only four respondents (15.4%) identified as locals, with the rest identifying as nonlocal (Table 4-62). The majority of respondents were engaged in single day trips to the site (73.9%), with only half a dozen spending a night or more away from home (Table 4-63). Converse to the other five sites, most respondents travelled to ex-*HMAS Hobart* as individuals (33.3%), in a group of friends (29.2%), or as part of a larger group (29.2%) (Table 4-63) rather than a familial one.

Respondents were questioned on which factors they consider important when travelling or making holiday plans. For ex-*HAMS Hobart* 'nature' was considered 'extremely' or 'very' important by most respondents (mean 4.18), while most felt that heritage material was only moderately important (mean 3.55) for their travel plans (Table 4-64, Appendix C, Figure C-28 and Appendix D, Table D-5).

Table 4-64 Descriptive statistics on the factors visitors to ex-HMAS Hobart *feel are important for their travel or holiday plans.*

	N	Minimum	Maximum	Mean	95% Lower CL for Mean	95% Upper CL for Mean
Friends and family	22	1	5	3.68	3.22	4.14
Heritage (museums, trails, experiences, etc.)	22	2	5	3.55	3.14	3.95
Entertainment (movies, theatre, sport, etc.)	22	1	5	2.59	2.10	3.08
Shopping (shops, malls, markets, etc.)	22	1	4	1.95	1.51	2.40
Hospitality (hotels, bars, restaurants, cafes, etc.)	22	1	5	3.05	2.60	3.49
Nature (parks, beaches, wildlife, etc.)	22	2	5	4.18	3.78	4.58

4.5.2 Economic Value

Visitor expenditure at Port Willunga is based on reported trip spends from survey respondents. As previously explained (see Section 3.4.1), this was calculated from the average spend per person per day, the average number of visitation days, and the annual number of visitors (Appendix E). The results were then adjusted to control for outliers (see Section 3.4.1). The average spend per person per day at Port Willunga was $107.32 (Table 4-65). Furthermore, the average group size was 1.17 people (all adults) and the average number of days spent on-site was approximately 1.46 (Table 4-65).

Table 4-65 Average visitor expenditure per person per day for those visiting ex-HMAS Hobart.

	Count (n=)	Sum	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Days on site	24	35	1.46	1.09	1.83
Accommodation ($)	24	330	13.75	-1.59	29.09
Travel ($)	24	890	37.08	-5.18	79.35
Food ($)	24	410	17.08	8.71	25.46
Activities ($)	24	1,745	72.71	25.64	119.77
Other ($)	24	1,025	42.71	-43.42	128.84
Total ($)	24	4,400	183.33	73.78	292.88
Adults	24	28	1.17	1.01	1.33
Children	24	0	.00	.00	.00
Total people	24	28	1.17	1.01	1.33

Though ex-*HMAS Hobart* is an offshore, deep-water location, approximate visitation data is collected through several channels. The first is due to the vessel's classification as a protected historic shipwreck, which means that diving the site requires the acquisition of permits granted by Heritage South Australia. A permit is issued for 12 months, however, so only the unique number of individuals who can access the site is recorded (repeat visits from the same individuals are not). For the year ending 2018, Heritage South Australia issued 268 permits for ex-*HMAS Hobart*. Fortunately, the site is also within a Marine Park Sanctuary zone, and the regulation body (National Parks and Wildlife Service South Australia) requires all commercial diving operators report how many divers they take to the site annually. While this data excludes permit holders who travel to the site privately, it still provides an additional level of accuracy. The National Parks and Wildlife Service South Australia provided the researcher with this data, which, when combined with Heritage South Australia's permit numbers, suggest 268 unique divers engaged in approximately 504 trips to the site to complete 804 total dives. The most pertinent and relevant estimation (504 trips[14]) was used for this study.

The annual direct visitor expenditure is calculated with the following equation (see Section 3.4 and Appendix E):

Total annual direct visitor expenditure	=	*Average daily visitor expenditure per person per day*	*X*	*Average length of stay (days)*	*X*	*Annual number of visitors per year*
$ 78,970.34	=	*$ 107.32*	*X*	*1.46*	*X*	*504*

Most respondents at ex-*HMAS Hobart* reported SCUBA diving ('other' 61.90%) as their main motivation for experiencing the site (Table 4-66), with the only other reported motivation being heritage-related (i.e., to the see the shipwreck itself) ('heritage' 38.10%) (Table 4-66). No respondent reported vising the site specifically to see the native flora and fauna. Furthermore, only a slight majority of respondents at ex-*HMAS Hobart* considered heritage as important (54.55%) (Table 4-67) to their holiday or travel plans.

[14] Some trips to the site are full day trips where visitors can do a 'double dive' to the ship.

Table 4-66 Main reason or motivation for visiting the ex-HMAS Hobart (n=21).

Motivation	Responses	Percentage	Lower CL 95%	Upper CL 95%
Other	13	61.90%	40.88%	79.25%
Heritage	8	38.10%	20.75%	59.12%
Friends and Family	0	0.00%	0.00%	15.46%
Entertainment	0	0.00%	0.00%	15.46%
Shopping	0	0.00%	0.00%	15.46%
Hospitality	0	0.00%	0.00%	15.46%
Nature	0	0.00%	0.00%	15.46%

Table 4-67 Respondent's importance rating for factors important for their travel (n=22).

Attribute	Not Important	Neutral	Important
Friends and Family	2	7	13
Heritage	3	7	12
Entertainment	8	11	3
Shopping	16	4	2
Hospitality	5	10	7
Nature	1	4	17

Table 4-68 Activities undertaken during their visit to ex-HMAS Hobart (n=21).

Activity	Responses	Percentage	Lower CL 95%	Upper CL 95%
Other	21	100.00%	84.54%	100%
Hospitality	4	19.05%	7.67%	40.00%
Heritage	2	9.52%	2.65%	28.91%
Nature	1	4.76%	0.85%	22.67%
Entertainment	0	0.00%	0.00%	15.46%
Shopping	0	0.00%	0.00%	15.46%
Friends and Family	0	0.00%	0.00%	15.46%

Unsurprisingly, all respondents reported SCUBA diving ('other' 100%) as the primary activity they engaged in at the site (Table 4-68). Several respondents (9.52%) specifically mentioned diving to see or photograph the shipwreck, while only one (4.76%) went diving to see the marine flora and fauna, (despite no respondent reporting seeing flora and fauna as a motivation for visiting the site) (Table 4-66, and 4-68). Visiting hospitality outlets was the second most engaged in activity (19.05%), however, because ex-*HMAS Hobart* has no on-site facilities, all respondents who reported doing so indicated it was an activity conducted in transit (and usually in Normanville or Yankalilla). The economic value of ex-*HMAS Hobart* is

therefore the most egregious example of geolocation division between a site and its primary economic benefactors. Notably, while all respondents visited the submerged shipwreck itself, they might not all have visited *because* it is a shipwreck. Ex-*HMAS Hobart* is one of the few deep-water diving sites in South Australia relatively close to Adelaide. Consequently, scarcity of supply may have been a subconscious motivating factor for many respondents (though, interestingly, this was not reflected in the sociocultural dependence place attachment response results). Accordingly, only responses that specifically mentioned the heritage or shipwreck were categorised as 'heritage'.

Based on the above percentages (38.10% of respondents indicating that cultural heritage was the main reason for visiting, with 54.55% of respondents rating heritage and cultural heritage as 'important' or 'very important' and 9.52% of respondents engaging in activities involving cultural heritage places, assets, or features), the attribution factor for Port Willunga is 34.06%. This means that 34.06% of the total expenditure, or $26,897.30 of the total annual expenditure of $78,970.34, can be considered *targeted*, or money spent in pursuit of visiting the maritime cultural heritage material located at the site. This was calculated with the following equation:

Total annual attributable visitor expenditure	=	*Total annual direct visitor expenditure*	*X*	*Attribution factor (%)*
$ 26,897.30	=	*$ 78,970.34*	*X*	*34.06%*

4.5.3 Sociocultural Value

Most respondents at ex-*HMAS Hobart* reported experiencing some form of emotional connection to the site (Table 4-69, Appendix C, Figure C-29, Appendix F, Table F-9 and Appendix G, Table G-5). Respondents mostly experienced place attachment through place dependence (mean 3.68) and place social bonding (mean 3.38) factors (Table 4-69 and Appendix C, Figure C-29). When considering all four types of place attachment, ex-*HMAS Hobart* had the overall lowest emotional connection score of all sites at 3.28. Importantly, however, an emotional connection *was* still reportedly experienced by all respondents. The combination of place dependence and place social bonding is unsurprising, as it is impossible to access the site without being able to SCUBA dive and it is uncommon (and dangerous) to go SCUBA diving alone. However, given the exclusive and isolated nature of the site as one of the few deep-dive sites in South Australia within a day trip from Adelaide, place dependence should arguably have scored even higher due to the fact that many divers rely on this site for their deep-water experiences (though several respondents noted that it is not their preferred

diving location, just the most convenient). This does, however, explain the general absence of family groups, since diving is a highly specialised activity that requires the presence of equally trained individuals. This may result in the creation of new social bonds based on activity at the site between divers and within diving groups.

Table 4-69 Mean scores of the amalgamated place attachment dimensions from visitors ex-HMAS Hobart.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average score of Place Dependence	26	3.68	3.21	4.15
Average score of Place Affect	26	3.00	2.49	3.51
Average score of Place Identity	26	3.06	2.57	3.56
Average score of Place Social Bonding	26	3.38	3.06	3.70

Table 4-70 Mean scores of the amalgamated place attachment dimensions from interviewees to ex-HMAS Hobart.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Place Dependence	3	3.78	2.05	5.50
Average of Place Affect	3	4.50	2.35	6.65
Average of Place Identity	3	4.56	2.64	6.47
Average of Place Social Bonding	3	4.44	2.72	6.17

Interviewees were more attached to the site than the average respondent (Table 4-70). They principally experienced attachment through place identity (mean 4.56), place affect (mean 4.50) and place social bonding (mean 4.44), before place dependence (mean 3.78) (Table 4-70). This is likely due to interviewees having longer connections with the site that span several decades. For many of the interviewees, ex-*HMAS Hobart* represents a large and significant proportion of their life's work, either to get the vessel into South Australia as a diving site, or as a tourism diving destination.

Respondents at ex-*HMAS Hobart* are more likely to engage in 'low effort' pro-heritage and pro-environmental behaviours (mean 4.54) than 'high effort' behaviours (mean 3.14) (Table 4-70, Appendix C, Figure C-30, Appendix F, Table F-10 and Appendix G, Table G-5). This is once again likely due to the simple commitment differential between the two, as many divers can engage in 'low effort' behaviours easily (without it interfering too much with their diving). Furthermore, many remarked that they were naturally inclined to engage in at least pro-environmental behaviours, like picking up waste and fishing line during dives, anyway,

because doing so helps to protect their diving locations (Appendix C, Figure C-30). Consequently, many such behaviours were already occurring on-site.

Table 4-71 Mean scores of the amalgamated behavioural intention factors from visitor to ex-HMAS Hobart.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Low effort behavioural intentions questions (excluding L2)	26	4.54	4.39	4.68
Average of High effort behavioural intentions questions	26	3.14	2.68	3.61

Table 4-72 Mean scores of the amalgamated behavioural intention factors from interviewees to ex-HMAS Hobart.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Low Effort Behaviours	3	4.92	4.56	5.28
Average of High Effort Behaviours	3	4.44	2.05	6.83

Similarly, interviewees are more inclined to engage in 'low effort' behaviour (mean 4.92) than 'high effort' behaviour (mean 4.44) (Table 4-72), although only marginally. Correlation tests were also conducted to explore the relationships between *place attachment type* and the behavioural intentions of survey respondents. The same tests were not conducted with interviewee data, as the sample size was too small to produce results. The tests once again revealed a positive correlation between all *place attachment types* and each *behavioural intentions type*, demonstrating that the 'stronger' the experience of place attachment, the more likely visitors are to engage in pro-heritage and pro-environmental behaviour. For ex-*HMAS Hobart*, place identity and 'high effort' behaviour returned a higher than typical correlation (0.50 and 0.69, respectively), while the other combinations returned a smaller than typical (0.10–0.29) or typical strength correlation (0.30 and 0.49, respectively) (Table 4-73) (Leech et al. 2005, p. 56). Unfortunately, *all* combinations returned a significance value of more than 0.01 (sig. (2-tailed)), indicating that the results are statistically insignificant (probably due to the small sample size). Therefore, even though the data indicates positive correlations for *respondents*, it is impossible to say if the results accurately represent the wider population.

Table 4-73 Correlations between the place attachment factors and the behavioural factors for ex-HMAS Hobart.

Spearman's rho				Average of Low effort behavioural intentions	Average of High effort behavioural intentions
Average score of Place Dependence	Correlation Coefficient			**.149**	**.281**
	Sig. (2-tailed)			.518	.218
	N			21	21
	Bootstrap[c]	Bias		.002	-.009
		Std. Error		.268	.191
		95% Confidence Interval	Lower	-.370	-.135
			Upper	.667	.610
Average score of Place Affect	Correlation Coefficient			**.106**	**.482***
	Sig. (2-tailed)			.648	.027
	N			21	21
	Bootstrap[c]	Bias		-.003	-.014
		Std. Error		.219	.211
		95% Confidence Interval	Lower	-.312	-.003
			Upper	.532	.803
Average score of Place Identity	Correlation Coefficient			**.376**	**.590****
	Sig. (2-tailed)			.093	.005
	N			21	21
	Bootstrap[c]	Bias		-.011	-.013
		Std. Error		.201	.184
		95% Confidence Interval	Lower	-.074	.155
			Upper	.702	.874
Average score of Place Social Bonding	Correlation Coefficient			**.336**	**.237**
	Sig. (2-tailed)			.137	.300
	N			21	21
	Bootstrap[c]	Bias		-.002	-.008
		Std. Error		.251	.204
		95% Confidence Interval	Lower	-.181	-.189
			Upper	.792	.603

**. Correlation is significant at the 0.01 level (2-tailed).

c. Unless otherwise noted, bootstrap results are based on 5000 bootstrap samples

4.5.4 Interviews

Table 4-74 Demographics of interviewees for ex-HMAS Hobart.

		Count (N=)	Column (N %)
What is your sex?	Male	2	66.7%
	Female	1	33.3%
	Other	0	0.0%
	Total	3	100.0%
What age group are you?	18 - 24	0	0.0%
	25 - 34	1	33.3%
	35 - 44	0	0.0%
	45 - 54	0	0.0%
	55 - 64	1	33.3%
	65 +	1	33.3%
	Total	3	100.0%

Table 4-75 Descriptive statistics on the factors interviewees for ex-HMAS Hobart *feel are important for their travel and holiday plans.*

	N (=)	Minimum	Maximum	Mean	95% Lower CL for Mean	95% Upper CL for Mean
Friends and family	3	5	5	5.00	5.00	5.00
Heritage (museums, trails, experiences, etc.)	3	3	5	4.00	1.52	6.48
Entertainment (movies, theatre, sport, etc.)	3	2	3	2.67	1.23	4.10
Shopping (shops, malls, markets, etc.)	3	2	3	2.33	0.90	3.77
Hospitality (hotels, bars, restaurants, cafes, etc.)	3	3	4	3.33	1.90	4.77
Nature (parks, beaches, wildlife, etc.)	3	3	5	4.00	1.52	6.48

E*x-HMAS Hobart* had the lowest number of interviewees of any site, with a total of three (two of whom were male, and one of whom was female) (Table 4-74). Interviewees were mostly in the older (55+), with one in the 25-34 age bracket (Table 4-74). Contrary to respondents, interviewees considered travelling with or to see family and friends the most important factor for holiday and travel planning, while heritage and nature were both secondary concerns

(Table 4-75). Interviewees were also asked about their perspectives on the economic impacts of tourism to ex-*HMAS Hobart*. Specifically, they were asked how much they think the average visitor would spend to visit the site, and whether or not they would prioritise economic concerns over an engaging and meaningful experience. Overall, interviewees *overestimated* the average spend per visitor at $200, but a majority of interviewees believed that 'enjoying the site and getting a meaningful experience' was more important than 'spending money' to see the site. The remaining interviewee believed that both were equally important.

4.5.5 Discussion

The average visitor to ex-*HMAS Hobart* is a South Australian travelling as an individual or with a diving group. Most are repeat visitors for whom nature and natural assets are a key consideration for their travel plans. Visitors to ex-*HMAS Hobart* are often motivated by their desire to go SCUBA diving. Regardless of group composition and size, visitors spend an average of $107.32 per person per day, totalling $78,970.34 in direct expenditure annually. Ex-*HMAS Hobart's* sociocultural value appears to be more deeply rooted in its contribution to nature rather than heritage, with the majority of survey respondents citing 'nature' as 'extremely important' to their travel plans, despite the site arguably representing the most stereotypically 'maritime archaeological' features (i.e., a sunken shipwreck and artificial reef). Ex-*HMAS Hobart* is also the smallest site included in this study, with the smallest number of individual site visitors. Consequently, while the information gathered from ex-*HMAS Hobart* may constitute the most relevant data for maritime archaeological practitioners, it may also be the most unreliable.

Nevertheless, the results still suggest that stronger place attachment typically results in more pro-heritage and pro-environment behaviour. Although several respondents expressed confusion at the intent behind the place dependence question set, place dependence was still the most reported type of attachment (3.68), with place social bonding coming in second (3.38) (Table 4-69). This is notable because, while SCUBA diving is a group activity for safety reasons (buddy pairs), the experience itself is often described as insulating (see J Edney's work in Section 2.4.1). Survey respondents reported a strong likelihood of engaging in 'low effort' behaviour (4.54) and a slight inclination to engage in 'high effort' behaviours (3.14). This may be due to the pre-existence of protective legislation under South Australian law. The presence of a protection exclusion zone may compel visitors to ensure they comply with legal requirements while diminishing the perceived need to engage in 'high effort' behaviour (i.e., the site is already protected by law and, therefore, a regulatory body). Indeed, most respondents believed the District Council of Yankalilla to *be* the regulatory body responsible

for the site's conservation and the issuing of permits for the site (which is incorrect; the South Australian Heritage Unit within the Department of Environment and Water is responsible for this). This effect may be compounded by the fact that the site is pragmatically distant from any local community, and that it is not under any direct perceivable threat. Further research, with more face-to-face engagement with respondents, may be required to determine which factors play a role in these results, as online-only participation reduces the potential for the collection of observational data or additional questioning.

Another drawback of the site's location (9 kilometres off the coast and under 30 metres of water) is the restrictions it places on possible modification to improve visitor numbers. Because the site is only accessible to appropriately qualified divers (who also possess a permit) on a dodge tide, the only practical way to improve access would be through the use of virtual technology. Consequently, increasing overall accessibility of the site, potentially via virtual engagements and three-dimensional displays, can help it reach wider audiences. In particular, creating virtual engagements of ex-*HMAS Hobart* at relevant locations proximal to the site (for example, the Yankalilla Information Centre) or on relevant webpages focusing on the site's humanistic components (its history in Australian wars and contribution to modern society) may serve to strengthen a visitor's place identity connection to the vessel.

4.6 Rapid Bay

4.6.1 Visitor Profile

Rapid Bay is the furthest site from Adelaide's CBD; however, it has a relatively high response rate at 136 completed surveys. Most were completed on-site (83) with 53 completed online (Table 4-76 and Appendix B, Figure B-23, B-24, B-25, B-26). As with all other sites, on-site responses were *fully* complete, while online surveys ranged from *partially* to *fully* complete.

Table 4-76 Surveys completed for Rapid Bay.

		Response Type		
		Online	On Site	Total
		Count (n=)	Count (n=)	Count (n=)
Stage complete	Opened never completed	0	0	0
	Information sheet	1	0	1
	Demographics	1	0	1
	Economic	2	0	2
	Site activities	4	0	4
	Social (fully complete)	45	83	128
	Total	53	83	136

Table 4-77 Basic demographics of survey responses for Rapid Bay.

Characteristics		Count (N =)	Column (N %)
What gender do you identify as?	Male	73	53.7%
	Female	62	45.6%
	Non-binary	1	0.7%
	Total	136	100.0%
What is your age?	18-24	22	16.2%
	25-34	28	20.6%
	35-44	27	19.9%
	45-54	29	21.3%
	55-64	19	14.0%
	65+	11	8.1%
	Total	136	100.0%
Do you identify as "local" to this location?	Yes	32	23.7%
	No	103	76.3%
	Total	135	100.0%

Table 4-78 Characteristics of respondents' trip pattern for Rapid Bay.

		Count (N =)	Column (N %)
Postcode visitor type	South Australian	125	93.3%
	Interstate	5	3.7%
	International	4	3.0%
	Total	134	100.0%
Days continuously visiting site	Single day	88	66.2%
	Trip with overnight stay	13	9.8%
	Trip with two or more overnight stays	32	24.1%
	Total	133	100.0%
During your visit to this location, did you travel as or with:	Individual	34	25.8%
	Family	52	39.4%
	Friends	43	32.6%
	A larger group	3	2.3%
	Total	132	100.0%
Is this your first visit to this location?	Yes	25	18.8%
	No	108	81.2%
	Total	133	100.0%

A slight majority of responses were provided by males (53.7%) compared to females (45.6%) (Table 4-77). Respondents were also spread across all age groups with the lowest number of respondents identifying as 65+ (11 respondents, or 8.1%) (Table 4-77). Over three-quarters (76.3%) of respondents were nonlocals, though most (93.3%) identified as South Australians principally from the Greater Adelaide region (Table 4-77, 4-78 and Appendix C, Figures C-32, C-33). Interstate visitors generally came from the east coast, while international visitors mostly came from South Africa and Europe (Table 4-78 and Appendix C, Figure C-31). An overwhelming number of respondents (81.2%) said they were engaging in a repeat visit to Rapid Bay with only 25 respondents claiming to be on their first (Table 4-78). Most visits were single day trips (66.2%), though nearly a quarter of respondents stayed three days or more (24.1%) (Table 4-78). Interestingly, this is one of the only sites (the other being Port Willunga) which continuously has longer stays. Additionally, visitors travelled in a range of group compositions, including individuals (25.8%), familial groups (39.4%), and friendship groups (32.6%) (Table 4-78).

Table 4-79 Descriptive statistics on the factors visitors to Rapid Bay feel are important for their travel or holiday plans.

	N (=)	Minimum	Maximum	Mean	95% Lower CL for Mean	95% Upper CL for Mean
Friends and family	131	1	5	4.12	3.95	4.30
Heritage (museums, trails, experiences, etc.)	131	1	5	3.27	3.08	3.47
Entertainment (movies, theatre, sport, etc.)	131	1	5	2.72	2.52	2.91
Shopping (shops, malls, markets, etc.)	131	1	5	2.00	1.82	2.18
Hospitality (hotels, bars, restaurants, cafes, etc.)	131	1	5	3.31	3.14	3.49
Nature (parks, beaches, wildlife, etc.)	131	1	5	4.57	4.45	4.69

Survey respondents were also questioned on which factors they considered important when travelling or making holiday plans. Nature was considered ‘extremely important’ (mean 4.57), with friends and family being the next most prominent factor (mean 4.12) (Table 4-79, Appendix C, Figure C-34 and Appendix D, Table D-6). Heritage, however, proved to be the fourth most important factor, scoring marginally below hospitality concerns (mean 3.27 and 3.31, respectively) (Table 4-79).

4.6.2 Economic Value

Visitor expenditure at Rapid Bay is based on reported trip spends from survey respondents. As previously explained (see Section 3.4.1), this was calculated from the average spend per person per day, the average number of visitation days, and the annual number of visitors (Appendix E). The results were then adjusted to control for outliers (see Section 3.4.1). The average spend per person per day at Rapid Bay was $66.67 (Table 4-80). Furthermore, the average group size was 2.00 people (1.79 adults and 0.21 children) and the average number of days spent on-site was approximately 1.90 (Table 4-80).

Table 4-80 Average visitor expenditure per person per day for those visiting Rapid Bay.

	Count (n=)	Sum	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Days on site	133	253	1.90	1.62	2.19
Accommodation ($)	133	2,242	16.86	7.76	25.96
Travel ($)	133	3,158	23.74	8.38	39.11
Food ($)	133	9,275	69.74	48.67	90.80
Activities ($)	133	5,224	39.28	7.01	71.55
Other ($)	133	13,800	103.76	-47.99	255.50
Total ($)	133	33,699	253.38	91.92	414.83
Adults	133	238	1.79	1.59	1.99
Children	133	28	.21	.06	.37
Total people	133	266	2.00	1.70	2.30

Rapid Bay is a deceptively complex site. Because it is predominately free-to-access and consequently unmonitored, the exact number of visitors making day trips is unknown. However, the foreshore campground *is* pay-to-access and consequently monitored (it is owned by the District Council of Yankalilla and operated by a lessee). Unfortunately, despite repeated attempts to obtain data through this medium, neither the council nor the lessee were able to fulfil a request for visitor numbers. Consequently, estimations based on observational data must suffice. Like at Port Willunga, visitation to Rapid Bay varies seasonally. On warm, sunny summer days (and specifically weekends, public holidays, or school holidays), Rapid Bay has upwards of 120 divers, 120 fishers, and 200 people camping or walking on the beach during daylight hours. Meanwhile, cooler, cloudy days in late spring typically reduces those numbers dramatically (i.e., 10 divers, 20 fishers, and 30 or so campers). Importantly, there was no guarantee that an observed camper was not also a diver later seen at the shoreline. Therefore, an extremely conservative estimate of 10,000 annual visitors was made for the site. The annual direct visitor expenditure is calculated with the following equation (see Section 3.4 and Appendix E):

Total annual direct visitor expenditure	=	*Average daily visitor expenditure per person per day*	*X*	*Average length of stay (days)*	*X*	*Annual number of visitors per year*
$ 1,266,730	=	*$ 66.67*	*X*	*1.90*	*X*	*10,000*

Respondents at Rapid Bay fell into three broad categories: campers, fishers, and divers. These categories overlapped, with, for example, campers going fishing, and divers go camping. Visitor motivation was consistently tied to these three primary activities to the extent that 72.52% of respondents identified one as their principal reason for being at Rapid Bay (Table 4-81). Categorised as 'other' in data analysis, this included 51 explicit mentions of SCUBA diving, 23 of fishing, and 13 of camping (although several respondents provided a *combination* of some or all three activities). The remaining 37 respondents cited other reasons, including going for a drive, sightseeing, and going on holiday/getting away from the city/relaxing. Regardless, nearly half of respondents specifically identified the jetties and/or caves as another motivation for their visit (47.33%), and a total of 56 respondents specifically mentioned the natural features of the site (including its local Leafy Sea Dragon population) (Table 4-81). Only a small portion (10.69%) of respondents claimed seeing friends and family was a motivation for visiting the site. This, however, is contrary to what respondents apparently considered important for their travel plans, as friends as family was overwhelmingly an important factor in this regard, with heritage coming in third (43.51%) (Table 4-82). Observational and demographic data may provide insight into this discrepancy, as visitors to Rapid Bay often appeared to travel with a family or friendship cohort but would otherwise choose the bay for its unique scenery and range of available activities (Table 4-83).

It is again unsurprising that most of the activities engaged in at Rapid Bay revolve around physicality (which collectively represented the most common answer at 97.71%) (Table 4-83). In addition to SCUBA diving, camping, and fishing, survey respondents also reported walking, swimming or snorkelling, kayaking, photography, and relaxation. Hospitality based activated were also engaged in by some respondents (28.24%), however, because Rapid Bay does not have any shops or hospitality facilities on-site, visitors must bring their own food. Many respondents commented on stopping at either Yankalilla or Normanville for lunch (if on a day trip) or for a 'full shop' (if camping). As with other sites, heritage was only recorded as an activity if visitors explicitly mentioned the cultural heritage assets or features of the site. This is because survey respondents may have, for instance, 'gone for a walk' at any other destination, even if they *did* happen to experience the heritage incidentally.

Table 4-81 Main reason or motivation for visiting Rapid Bay (n=131).

Motivation	Responses	Percentage	Lower CL 95%	Upper CL 95%
Other	95	72.52%	64.32%	79.44%
Heritage	62	47.33%	38.98%	55.83%
Nature	56	42.75%	34.60%	51.31%
Friends and Family	14	10.69%	6.47%	17.14%
Hospitality	1	0.76%	0.13%	4.20%
Entertainment	0	0.00%	0.00%	2.85%
Shopping	0	0.00%	0.00%	2.86%

Table 4-82 Respondent's importance rating for factors important for their travel (n=131).

Attribute	Not Important	Neutral	Important
Friends and Family	11	20	100
Heritage	27	47	57
Entertainment	54	45	32
Shopping	90	31	10
Hospitality	22	48	61
Nature	1	9	121

Table 4-83 Activities undertaken during their visit to Rapid Bay (n=131).

Activities	Responses	Percentage	Lower CL 95%	Upper CL 95%
Other	128	97.71%	93.48%	99.22%
Hospitality	37	28.24%	21.24%	36.49%
Heritage	15	11.45%	7.06%	18.03%
Nature	15	11.45%	7.06%	18.03%
Friends and Family	6	4.58%	2.12%	9.63%
Entertainment	0	0.00%	0.00%	2.85%
Shopping	0	0.00%	0.00%	2.85%

Based on the above percentages (47.33% of respondents indicating that cultural heritage was the main reason for visiting, with 43.51% of respondents rating heritage and cultural heritage as ‘important’ or ‘very important’ and 11.45% of respondents engaging in activities involving cultural heritage places, assets, or features), the attribution factor for Rapid Bay is 34.10%. This means that 34.10% of the total expenditure, or $431,954.93 of the total annual expenditure of $1,266,730.00, can be considered *targeted*, or money spent in pursuit of visiting the maritime cultural heritage material located at the site. This was calculated with the following equation:

Total annual attributable visitor expenditure	=	*Total annual direct visitor expenditure*	*X*	*Attribution factor (%)*
$ 431,954.93	=	*$ 1,266,730.00*	*X*	34.10%

4.6.3 Sociocultural Value

Most respondents at Rapid Bay reported experiencing some sort of emotional connection to the site, with all four *place attachment types* returning similar results. Technically speaking, place social bonding (mean 3.91) returned the highest score, followed by place identity (mean 3.77), place dependence (mean 3.70), and place affect (mean 3.40) (Table 4-84, Appendix C, Figure C-35, Appendix F, Table F-11 and Appendix G, Table G-6), though all might be statistically similar. Indeed, when considering the overall place attachment score, Rapid Bay had the second highest experienced attachment at 3.69. This matches observation data; many visitors engaged in a combination of physical activities that included both nature and heritage to some degree, and a significant number claimed to have travelled to the site to ‘reconnect with family’ or ‘bond with friends’ while simultaneously enjoying Rapid Bay’s relative isolation. Some respondents even claimed to periodically return to the site to ‘disconnect’ from the modern world and ‘reconnect’ with peers, likely deepening social bonds and catalysing micro-communal identity. Rapid Bay may be unique among the six selected sites for this reason, providing visitors with multifaceted but general experiences (which would explain place dependence being lower than place social bonding or place identity). With one of the cheapest campgrounds on the Fleurieu Peninsula, one of the top 10 shore dive sites in Australia, and a mid-water fishing jetty, the site caters to a wide range of hobbies, but they are hobbies visitors may also be able to experience elsewhere.

Table 4-84 Mean scores of the amalgamated place attachment dimensions from visitors to Rapid Bay.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average score of Place Dependence	135	3.70	3.54	3.85
Average score of Place Affect	135	3.40	3.18	3.62
Average score of Place Identity	135	3.77	3.57	3.98
Average score of Place Social Bonding	135	3.91	3.75	4.08

Table 4-85 Mean scores of the amalgamated place attachment dimensions from interviewees to Rapid Bay.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Place Dependence	8	4.58	3.97	5.19
Average of Place Affect	8	4.75	4.36	5.14
Average of Place Identity	8	4.79	4.46	5.12
Average of Place Social Bonding	8	4.96	4.86	5.06

Respondents at Rapid Bay are likely to engage in 'low effort' pro-heritage and pro-environmental behaviour (mean 4.65), and much less likely to engage in 'high effort' behaviour (mean 2.51) (Table 4-86, Appendix C, Figure C-36, Appendix F, Table F-12 and Appendix G, Table G-6). Once again, this is likely due to the ease with which 'low effort' behaviour can be achieved, and the fact that much of it is likely already occurring on-site. Conversely, due to Rapid Bay's relative isolation, many respondents may perceive the requirements of 'high effort' behaviour to be even greater than usual, with actions like 'participat[ing] in community meetings' and 'volunteer[ing] my time for local projects' entailing not only the action itself but a lengthy drive in many circumstances. This is reinforced by the fact that the majority of respondents (76.3%) identified as nonlocals (Table 4-77).

Interviewees followed a similar attachment type pattern to survey respondents, principally connecting to the site through place social bonding (mean 4.96) and place identity (mean 4.79) (Table 4-85), with place affect (mean 4.75) and place dependence (mean 4.58) returning slightly lower scores (though still high overall). This may be because most interviewees reported making frequent trips to Rapid Bay, engaging in a form of long-term engagement that has cemented the foreshore environment into a key part of their social and individual identities. Interviewees are also more inclined to engage in both 'low effort' behaviour (mean 5.00) *and* 'high effort' behaviour (mean 4.33) (Table 4-87).

Table 4-86 Mean scores of the amalgamated behavioural intention factors from visitors to Rapid Bay.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Low effort behavioural intentions questions (excluding L2)	135	4.65	4.56	4.73
Average of High effort behavioural intentions questions	135	2.51	2.31	2.71

Table 4-87 Mean scores of the amalgamated behavioural intention factors from interviewees to Rapid Bay.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Low Effort Behaviours	8	5.00	5.00	5.00
Average of High Effort Behaviours	8	4.33	3.67	5.00

Correlation tests were also conducted to explore the relationships between *place attachment type* and the behavioural intentions of survey respondents. The same tests were not conducted with interviewee data, as the sample size was too small to produce results. The tests once again revealed a positive correlation between all *place attachment types* and each *behavioural intentions type*, demonstrating that the 'stronger' the experience of place attachment, the more likely visitors are to engage in pro-heritage and pro-environmental behaviour. For Rapid Bay, place social bonding and 'low effort' behaviour and place affect and 'high effort' behaviour both have medium strength or typical correlations (0.30 and 0.49, respectively), while the remaining combinations have a smaller than typical strength correlation (0.10 and 0.29, respectively) (Table 4-88) (Leech et al. 2005, p. 56).

Place attachment cultivated through place social bonding is therefore more likely to encourage visitors to engage in 'low effort' behaviour while an increase in other *place attachment types* will encourage them (slightly) to engage in 'high effort' behaviour. Most combinations have a significance value of less than 0.01 (sig. (2-tailed)), indicating that the results are statistically significant and can therefore be applied to the broader population.

Table 4-88 Correlations between the place attachment factors and the behavioural factors for Rapid Bay.

Spearman's rho				Average of Low effort behavioural intentions	Average of High effort behavioural intentions
Average score of Place Dependence	Correlation Coefficient			**.246****	**.256****
	Sig. (2-tailed)			.005	.003
	N			128	128
	Bootstrap[c]	Bias		-.001	-.003
		Std. Error		.086	.083
		95% Confidence Interval	Lower	.072	.086
			Upper	.407	.412
Average score of Place Affect	Correlation Coefficient			**.199***	**.353****
	Sig. (2-tailed)			.024	.000
	N			128	128
	Bootstrap[c]	Bias		.000	-.001
		Std. Error		.090	.083
		95% Confidence Interval	Lower	.017	.189
			Upper	.371	.511
Average score of Place Identity	Correlation Coefficient			**.237****	**.244****
	Sig. (2-tailed)			.007	.005
	N			128	128
	Bootstrap[c]	Bias		-.002	-.002
		Std. Error		.087	.082
		95% Confidence Interval	Lower	.057	.080
			Upper	.406	.396
Average score of Place Social Bonding	Correlation Coefficient			**.407****	**.205***
	Sig. (2-tailed)			.000	.020
	N			128	128
	Bootstrap[c]	Bias		-.002	-.002
		Std. Error		.076	.082
		95% Confidence Interval	Lower	.252	.041
			Upper	.549	.364

**. Correlation is significant at the 0.01 level (2-tailed).

c. Unless otherwise noted, bootstrap results are based on 5000 bootstrap samples

4.6.4 Interviews

Table 4-89 Demographics of interviewees for Rapid Bay.

		Count (N=)	Column (N %)
What is your sex?	Male	4	50.0%
	Female	4	50.0%
	Other	0	0.0%
	Total	8	100.0%
What age group are you?	18 - 24	1	12.5%
	25 - 34	2	25.0%
	35 - 44	2	25.0%
	45 - 54	1	12.5%
	55 - 64	1	12.5%
	65 +	1	12.5%
	Total	8	100.0%

Table 4-90 Descriptive statistics on the factors interviewees for Rapid Bay feel are important for their travel and holiday plans.

	N	Minimum	Maximum	Mean	95% Lower CL for Mean	95% Upper CL for Mean
Friends and family	8	4	5	4.75	4.36	5.14
Heritage (museums, trails, experiences, etc.)	8	3	5	3.87	3.18	4.57
Entertainment (movies, theatre, sport, etc.)	8	1	4	2.38	1.61	3.14
Shopping (shops, malls, markets, etc.)	8	1	3	1.63	0.86	2.39
Hospitality (hotels, bars, restaurants, cafes, etc.)	8	2	4	2.88	2.34	3.41
Nature (parks, beaches, wildlife, etc.)	8	4	5	4.63	4.19	5.06

Rapid Bay had eight interviewees willing to participate, and they were equally split by sex (four male and four female) (Table 4-89). Interviewees were distributed across age ranges, with half identifying as being between 25 and 44 (Table 4-89). In terms of what they considered essential to their holiday and travel plans, interviewees cited friends and family foremost (mean 4.75), with nature (mean 4.63) and heritage (mean 3.87) also scoring relatively high (Table 4-90). Interviewees were also asked about their perspectives on the economic impacts of tourism to Rapid Bay. Specifically, they were asked how much they think the average visitor

would spend to visit the site, and whether or not they would prioritise economic concerns over an engaging and meaningful experience. Overall, interviewees underestimated how much visitors spend at the site, giving an average spend figure of $46.25. Nevertheless, most interviewees believe that 'enjoying the site and getting a meaningful experience' is just as important as 'spending money' to see the site. The remaining 38% of interviewees believe enjoying the site and getting a meaningful experience is more important than visitors spending money, and no interviewee believed that spending money at the site was more important than getting a quality experience. Like most of the sites, however, the interviewees at Rapid Bay once again expressed highly bespoke connections to the site, providing data that – while valuable – is nevertheless in surplus to this study's intentions.

4.6.5 Discussion

The average visitor to Rapid Bay is a South Australian travelling in a family or friendship group for a day. Most are repeat visitors for whom nature and bonding with family and friends are key considerations for their travel plans. Visitors to Rapid Bay are also commonly motivated to attend the foreshore by their desire to engage in physical activities. Regardless of group composition and size, visitors spend an average of $66.67 per person per day, totalling $1,266,730.00 in direct expenditure annually. Rapid Bay's sociocultural value appears to derive from its relative isolation and its capacity to host a variety of family friendly physical activities. It is similar to the South Australian Maritime Museum, Port Willunga, and ex-*HMAS Hobart* in that three of the four *place attachment types* correlate more strongly with 'high effort' pro-heritage and pro-environment behaviour, but one (place social bonding) correlates more strongly with 'low effort' behaviour (despite there being an overall slight disinclination to engage in 'high effort' behaviour, which had an overall score of 2.51) (Table 4-86).

Rapid Bay itself is a multifaceted site at which experiencing heritage seems to be a secondary interest for most visitors. Indeed, the most popular activities at the site are camping, fishing, and SCUBA diving. It is therefore unsurprising that place social bonding is the highest reported *place attachment type* (mean 3.91), with place identity (mean 3.77) and place dependence (mean 3.70) coming in second and third, respectively (Table 4-84). These reasonably high levels of attachment also correlate to a very strong overall inclination to engage in 'low effort' behaviour (4.65) (Table 4-86), a similar number to the Garden Island Shipwreck Graveyard (4.68) (Table 4-26) and Port Willunga (4.70) (Table 4-56). Given the preponderance of publicly accessible 'nature' at these three sites (i.e., public beaches and/or waterways with significant natural features), this suggests that non-heritage specific pro-environmentalism may be influencing the behavioural data more than anticipated. These scores also reaffirm that, for

most respondents, camping, fishing, and diving are used as a social outlet as well as a physical one, drawing into question just how integral the local heritage assets are to such a process. The theme of social 'disconnection' and 'reconnection' seems to be more dependent on Rapid Bay's isolation than any notion of history or identity and are strongly mediated through the activities in question anyway, regardless of the presence of heritage material. Indeed, Rapid Bay is overwhelmingly considered an 'out of the way' location which, at the time of writing, did not even have basic amenities like shower facilities, power outlets, or phone reception (let alone Wi-Fi). This 'Spartan' style was framed by many respondents as an important aspect of their time at Rapid Bay; a sort of visit to a 'recreated' or 'facilitated' past, rather than a visit to the past's *in situ* remains.

This may also go some way to explaining why place identity also scored relatively highly, which is similar to the results returned by the South Australian Maritime Museum; that being, intergenerational sharing and connecting through familial units appeared to be quite common among respondents at Rapid Bay. Many respondents claimed to have camped at the beach as children and were now returning with their own families as adults. One respondent even remarked on how important they perceived sharing their happy childhood memories with their own children was to them in adulthood, and hence it was a driving factor for their visit to Rapid Bay. Another respondent claimed that they had deliberately purchased a $10,000 camping set up to bring their new partner to Rapid Bay with the goal of familiarising them with the site (to convince them it would be a good place to go on a family trip with their future children).

Unfortunately for Rapid Bay, and despite the veracity with which some respondents praised the site, most indicated that they would not engage in 'high effort' pro-heritage and pro-environmental behaviour due to the same reason they loved the site in the first place: its distance from 'civilisation'. Many claimed they would not have enough time to assist with activities requiring any significant time commitment, though many expressed concern at the researcher posing such questions (assuming that the local council was looking to redevelop the area), and firmly reiterated that specific features of the site (always directly linked to their activity of choice) should not be changed. Common fears included the commercialisation of the campground, closing the jetty (specifically to fishing/diving), and closing or retuning the jetty car park area to the mining grounds. Additionally, while the L2 (learn about local history) behavioural question was omitted from the final analysis (see Section 5.3), the majority of respondents at Rapid Bay (like at Port Willunga) remarked that if historical information was readily available on-site they would love to learn more (and often pointed out or named specific features of the landscape they wanted information on). If nothing else, respondents were enthusiastic for on-site interpretation and without fail questioned the researcher about the

site's history. It should be noted that after the completion of this study, further improvements to the site have been explored. Prior to the data collection period, the District Council of Yankalilla conducted a survey of fishers and divers aiming to improve on-site facilities (and increase visitation). The survey determined that providing fish cleaning stations, tank filling stations, gear washing facilities, and open showers would help increase visitor satisfaction. However, as of the end of 2021, these facilities are yet to be installed.

4.7 Maritime Cultural Heritage Tourism in South Australia

4.7.1 Visitor Profile

Examining all six maritime cultural heritage sites collectively paints a larger picture of South Australia's maritime cultural heritage tourism industry. A total of 609 surveys were completed for this study (Table 4-91), 252 of which were conducted on site and were all fully complete, while 357 were conducted via online survey platforms but were completed to various stages (not all were fully complete). Of these, four surveys were opened but never completed, respondents in 59 surveys passed the information sheet but went no further, respondents in 24 surveys completed up to the demographics section only, respondents in 22 surveys completed up to the economic questions only, respondents in 14 surveys completed up to the site activities section only, and respondents in 234 online surveys completed the entire survey as requested (Table 4-91 and Appendix B, Table B-1, B-2). As aforementioned, the structure and design of the surveys still allows for partially complete surveys to be used to address the various aims and objectives of this study. Consequently, for all the previous site-specific reviews, and for below in this snapshot review, each analytical section (demographic, economic, site activities/motivation, and social/sociocultural) will present different total numbers of respondents.

Table 4-91 Surveys completed for all six selected maritime cultural heritage tourism sites.

		Response Type		
		Online	On Site	Total
		Count (n=)	Count (n=)	Count (n=)
Stage complete	Opened never completed	4	0	4
	Information sheet	59	0	59
	Demographics	24	0	24
	Economic	22	0	22
	Site activities	14	0	14
	Social (fully complete)	234	252	486
	Total	357	252	609

Table 4-92 Basic demographics of survey responses for all six selected maritime cultural heritage tourism sites.

Characteristics		Count (N =)	Column (N %)
What gender do you identify as?	Male	255	46.9%
	Female	288	52.9%
	Non-binary	1	0.2%
	Total	544	100.0%
What is your age?	18-24	36	6.6%
	25-34	91	16.7%
	35-44	87	16.0%
	45-54	119	21.9%
	55-64	111	20.4%
	65+	100	18.4%
	Total	544	100.0%
Do you identify as "local" to this location?	Yes	196	36.4%
	No	343	63.6%
	Total	539	100.0%

Table 4-93 Characteristics of respondents' trip pattern for all six selected maritime cultural heritage tourism sites.

		Count (N =)	Column (N %)
Postcode visitor type	South Australian	477	89.0%
	Interstate	44	8.2%
	International	15	2.8%
	Total	536	100.0%
Days continuously visiting site	Single day	399	78.1%
	Trip with overnight stay	31	6.1%
	Trip with two or more overnight stays	81	15.9%
	Total	511	100.0%
During your visit to this location, did you travel as or with:	Individual	112	21.8%
	Family	287	55.9%
	Friends	91	17.7%
	A larger group	23	4.5%
	Total	513	100.0%
Is this your first visit to this location?	Yes	136	26.4%
	No	380	73.6%
	Total	516	100.0%

Table 4-94 Types of larger groups who visited the six selected maritime cultural heritage tourism sites.

	Count	Minimum	Mean	Maximum	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Tour group	0	.	.	.	.	.
Work group	1	5	5	5	.	.
Educational group	8	5	24	66	-7	55
Other (unspecified)	14	6	13	32	5	21

Table 4-95 Descriptive statistics on the factors visitors to all six maritime cultural heritage sites feel are important for their travel or holiday plans.

	N (=)	Minimum	Maximum	Mean	95% Lower CL for Mean	95% Upper CL for Mean
Friends and family	496	1	5	4.14	4.05	4.23
Heritage (museums, trails, experiences, etc.)	496	1	5	3.79	3.70	3.88
Entertainment (movies, theatre, sport, etc.)	496	1	5	2.86	2.77	2.96
Shopping (shops, malls, markets, etc.)	496	1	5	2.34	2.24	2.45
Hospitality (hotels, bars, restaurants, cafes, etc.)	496	1	5	3.44	3.35	3.53
Nature (parks, beaches, wildlife, etc.)	496	1	5	4.43	4.37	4.50

Females constituted over half of all respondents (52.9%), while males constituted 46.9% and non-binary individuals constituted 0.2% (Table 4-92). Respondents were from a range of age groups, however, they skewed towards the higher age brackets. Most (63.6%) identified as nonlocals (Table 4-92) despite 89% also identifying as South Australians, principally from the Greater Adelaide region (with some coming from as far south as Mount Gambier, and others as far north as Port Augusta) (Table 4-93 and Appendix C, Figures C-39, C-40). Interstate respondents came from all over the country (Appendix C, Figure C-38) and international respondents principally came from the US, Canada, UK, Netherlands, Germany, Austria, Italy, South Africa, and New Zealand (Appendix C, Figure C-37). Most respondents were visiting on

single day trips (78.1%) within familial groups (55.9%), and most were also repeat visits (73.6%) (Table 4-93). It is worth noting that family groups frequently varied from conventional 'nuclear' ideals to encompass members of the immediate and extended family, including grandparents, aunts, uncles, and cousins. Travelling as part of a larger group (ranging from five to 66 people) was the least common group combination (4.5%) (Table 4-93 and 4-94). Survey respondents were also questioned on which factors they considered important when travelling or making holiday plans. Overall, nature and the natural environment generally ranks highly (mean 4.43), followed by family and friends in second (mean 4.14) and heritage in third (mean 3.79) (Table 4-95, Appendix C, Figure C-41 and Appendix D, Table D-7).

4.7.2 Economic Value

Visitor expenditure for all six maritime cultural heritage sites is based on reported trip spends from survey respondents. As previously explained (see Section 3.4.1), this was calculated from the average spend per person per day, the average number of visitation days, and the annual number of visitors (Appendix E). The results were then adjusted to control for outliers (see Section 3.4.1). The average spend per person per day was $53.02 (Table 4-96). Furthermore, the average group size was 2.30 people (1.83 adults and 0.47 children) and the average number of days spent on-site was approximately 1.56. All six sites have varying visitor numbers and a range of reliability considerations regarding the estimation of these numbers (see previous site sections for discussions on visitor numbers and visitor number calculations). Based on previously presented data, the six sites combined are estimated to receive 130,933 annual visitors in total.

The annual direct visitor expenditure is calculated with the following equation (see Section 3.4 and Appendix E):

Total annual direct visitor expenditure	=	*Average daily visitor expenditure per person per day*	*X*	*Average length of stay (days)*	*X*	*Annual number of visitors per year*
$ 10,829,625.55	=	*$ 53.02*	*X*	*1.56*	*X*	*130,933*

Table 4-96 Average visitor expenditure per person per day for those visiting all six selected maritime cultural heritage tourism sites.

	Count (n=)	Sum	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Days on site	514	800	1.56	1.44	1.68
Accommodation ($)	514	19,473	37.89	19.82	55.95
Travel ($)	514	9674	18.82	9.62	28.02
Food ($)	514	32,042	62.34	46.91	77.77
Activities ($)	514	16,667	32.43	23.14	41.71
Other ($)	514	19,939	38.79	-.85	78.43
Total ($)	514	97,795	190.26	137.07	243.46
Adults	514	943	1.83	1.74	1.93
Children	514	241	.47	.35	.59
Total people	514	1,184	2.30	2.14	2.47

Overall, respondents identified heritage as their main motivation for visiting sites (58.01%) (Table 4.97). Engaging in a physical activity such as kayaking, diving, fishing, or relaxing ('other' category) was the second highest motivator (43.81%) and experiencing the natural features of a site was the third highest motivating factor (22.72%) (Table 4-97). Respondents deemed nature and the natural features of a site the most pertinent factor when making holiday and travel plans (with 450, or 91.2% of respondents labelling it as 'important'). Family and friends came in second (with 384, or 77.89% of respondents labelling it as 'important') and heritage came in third (with 319 or 64.70% of respondents labelling it as 'important') (Table 4-98).

Table 4-97 Main reason or motivation for visiting all six selected maritime cultural heritage tourism sites (n=493).

Motivation	Responses	Percentage	Lower CL 95%	Upper CL 95%
Heritage	286	58.01%	53.61%	62.29%
Other	216	43.81%	39.50%	48.22%
Nature	112	22.72%	19.24%	26.62%
Friends and Family	106	21.50%	18.10%	25.34%
Hospitality	15	3.04%	1.85%	4.96%
Shopping	2	0.41%	0.11%	1.47%
Entertainment	1	0.20%	0.00%	1.14%

Table 4-98 Respondent's importance rating for factors important for their travel (n=493).

Attribute	Not Important	Neutral	Important
Friends and Family	38	74	384
Heritage	48	129	319
Entertainment	176	185	135
Shopping	274	141	81
Hospitality	74	174	248
Nature	9	37	450

Table 4-99 Activities undertaken during their visit to all six selected maritime cultural heritage tourism sites (n=483).

Activities	Responses	Percentage	Lower CL 95%	Upper CL 95%
Other	346	71.64%	67.46%	75.47%
Heritage	195	40.37%	36.09%	44.81%
Hospitality	180	37.27%	33.07%	41.66%
Nature	65	13.46%	10.89%	17.02%
Friends and Family	23	4.76%	3.19%	7.04%
Shopping	22	4.55%	3.03%	6.80%
Entertainment	4	0.83%	0.32%	2.11%

Most respondents across the six sites engaged in a physical activity of some kind (71.64%) (Table 4-99), which frequently included walking, swimming, diving, fishing, relaxing, and photography. A minority of the time (40.37%), the activities specifically included a site's cultural heritage assets or features (Table 4-99), though they likely included them incidentally far more often. Respondents also visited hospitality locations on a significant number of trips (37.27%), however, such amenities were not always available on-site, causing some visitors to travel to the nearest hospitality-based facilities. The Garden Island Shipwreck Graveyard and ex-*HMAS Hobart*, for example, are two sites that lack on-site hospitality facilities.

Based on the above percentages (58.01% of respondents indicating that cultural heritage was the main reason for visiting, with 64.70% of respondents rating heritage and cultural heritage as 'important' or 'very important' and 40.47% of respondents engaging in activities involving cultural heritage places, assets, or features), the overall attribution factor for all six selected sites is 54.39%. This means that 54.39% of the total expenditure, or $5,890,233.33 of the total annual expenditure of $10,829,625.55, can be considered *targeted*, or money spent in pursuit of visiting the maritime cultural heritage material located at the sites. This was calculated with the following equation:

Total annual attributable visitor expenditure	=	*Total annual direct visitor expenditure*	*X*	*Attribution factor (%)*
$ 5,890,233.33	=	*$ 10,829,625.55*	*X*	*54.39%*

4.7.3 Sociocultural Value

As was replicated in all site-specific results, most respondents experienced some form of emotional connection to a site (Table 4-100, Appendix C, Figure C-42, Appendix F, Table F-13 and Appendix G, Table G-7). Principally, this occurred as a function of social activity at a site (place social bonding – mean 3.74), usually with friends and family. Following place social bonding was place attachment through place dependence (mean 3.73), suggesting a reliance on maritime cultural heritage sites to engage in a range of recreational activities (Table 4-100). Place identity scored third (mean 3.66), demonstrating that maritime cultural heritage does indeed play a role in individual identity formation, even if its effect is less significant on people visiting a site for a day than those who live near it or visit it repeatedly. Finally, respondents also experienced place attachment through place affect (mean 3.42), indicating that the sites generally had real-world positive effects on visitors' mental and physical wellbeing (Table 4-100 and Appendix C, Figure C-42). Overall, when considering place attachment to all of these sites as a single score, visitor place attachment to maritime cultural heritage tourism in South Australia scored 3.63.

Table 4-100 Mean scores of the amalgamated place attachment dimensions from visitor to all six selected sites.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average score of Place Dependence	544	3.73	3.65	3.81
Average score of Place Affect	544	3.42	3.31	3.54
Average score of Place Identity	544	3.66	3.55	3.77
Average score of Place Social Bonding	544	3.74	3.65	3.83

Table 4-101 Mean scores of the amalgamated place attachment dimensions from interviewees to all six selected sites.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Place Dependence	42	4.31	4.07	4.55
Average of Place Affect	42	4.80	4.66	4.93
Average of Place Identity	42	4.91	4.83	5.00
Average of Place Social Bonding	42	4.81	4.71	4.91

Broadly, interviewees also experience deep connections with sites across all *place attachment types* (Table 4-101). However, interviewees connect *less* through place dependence (mean 4.31) and *more* through place identity and place social bonding (mean 4.91 and 4.81, respectively) (Table 4-101). This is likely due to sites becoming a fundamental part of interviewees' lives; a place where they might take family, meet with friends, and walk daily. It is this long-term engagement that encourages the integration of a site into an individual's sociocultural identity. Nevertheless, this did not reliably translate into behavioural outcomes.

Most respondents are extremely likely to engage in 'low effort' pro-heritage and pro-environmental behaviour (mean 4.55) while being *simultaneously* disinclined (overall) to engage in 'high effort' behaviour (mean 2.90) (Table 4-102 and Appendix C, Figure C-43, Appendix F, Table F-14 and Appendix G, Table G-7). Depending on the site and the respondent, reasons for this may vary; however, there are some common themes that struck through the qualitative data, including the ease with which 'high effort' behaviour could be achieved, the presence of a regulatory body already engaged in protecting a site, and (to a lesser extent) the *place attachment type* itself.

Table 4-102 Mean scores of the amalgamated behavioural intention factors from visitors to all six selected sites.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Low effort behavioural intentions questions (excluding L2)	544	4.55	4.50	4.61
Average of High effort behavioural intentions questions	544	2.90	2.78	3.01

Table 4-103 Mean scores of the amalgamated behavioural intention factors from interviewees to all six selected sites.

	Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
Average of Low Effort Behaviours	42	4.96	4.92	5.01
Average of High Effort Behaviours	42	4.81	4.66	4.96

Conversely, interviewees are extremely likely to undertake both 'low effort' and 'high effort' behaviours (mean 4.96 and 4.81, respectively) (Table 4-103). Once again, depending on the site and the respondent, reasons for this may vary, though it is possible to speculate. One assumption is that individuals who feel inclined to participate in an interview may *already* be heavily invested in a particular site. This would certainly explain some of the patterns observed across the six sites; notably, interviewees were usually locals who regularly attended a site or who worked with or on a site in some capacity (for example, as volunteers).

Correlation tests were also conducted to explore the relationships between *place attachment type* and the behavioural intentions of survey respondents. The same tests were not conducted with interviewee data, as the sample size was too small to produce results. As with many of the site-specific results, the tests reveal a positive correlation between *all place attachment types* and behavioural intention types, regardless of their nature. While the strength of the correlation varies according to combination, the tests suggest that the stronger an individual's sense of place attachment, the more likely they are to engage in pro-heritage and pro-environmental behaviour.

For maritime cultural heritage tourism in South Australia, place social bonding and 'low effort' behaviour returned a larger than typical strength correlation (0.50–0.46), place affect and 'low effort' behaviour returned a smaller than typical correlation (0.10–0.29), and the remaining combinations returned a medium strength or typical correlation (0.30–0.49) (Table 4-104) (Leech et al. 2005, p. 56). All combinations returned a significance value of less than 0.01 (sig. (2-tailed)), indicating that the results are statistically significant and can therefore be applied to the broader population.

Table 4-104 Correlations between the place attachment factors and the behavioural intentions factors for all six selected sites.

Spearman's rho				Average of Low effort behavioural intentions	Average of High effort behavioural intentions
Average score of Place Dependence	Correlation Coefficient			**.354****	**.457****
	Sig. (2-tailed)			.000	.000
	N			485	485
	Bootstrap[c]	Bias		.001	-.001
		Std. Error		.041	.038
		95% Confidence Interval	Lower	.272	.380
			Upper	.432	.528
Average score of Place Affect	Correlation Coefficient			**.298****	**.478****
	Sig. (2-tailed)			.000	.000
	N			485	485
	Bootstrap[c]	Bias		.000	-.001
		Std. Error		.043	.037
		95% Confidence Interval	Lower	.212	.404
			Upper	.382	.546
Average score of Place Identity	Correlation Coefficient			**.387****	**.486****
	Sig. (2-tailed)			.000	.000
	N			485	485
	Bootstrap[c]	Bias		.001	-.001
		Std. Error		.041	.037
		95% Confidence Interval	Lower	.306	.411
			Upper	.465	.556
Average score of Place Social Bonding	Correlation Coefficient			**.544****	**.336****
	Sig. (2-tailed)			.000	.000
	N			485	485
	Bootstrap[c]	Bias		.000	.000
		Std. Error		.035	.042
		95% Confidence Interval	Lower	.474	.253
			Upper	.610	.417

**. Correlation is significant at the 0.01 level (2-tailed).

c. Unless otherwise noted, bootstrap results are based on 5000 bootstrap samples

4.7.4 Interviews

Table 4-105 Demographics of interviewees for all six selected maritime cultural heritage tourism sites.

		Count (N=)	Column (N %)
What is your sex?	Male	19	45.2%
	Female	23	54.8%
	Other	0	0.0%
	Total	42	100.0%
What age group are you?	18 - 24	2	4.8%
	25 - 34	8	19.0%
	35 - 44	4	9.5%
	45 - 54	6	14.3%
	55 - 64	7	16.7%
	65 +	15	35.7%
	Total	42	100.0%

Table 4-106 Descriptive statistics on the factors interviewees for all six selected maritime cultural heritage tourism sites feel are important for their travel and holiday plans.

	N (=)	Minimum	Maximum	Mean	95% Lower CL for Mean	95% Upper CL for Mean
Friends and family	42	3	5	4.52	4.30	4.74
Heritage (museums, trails, experiences, etc.)	42	3	5	4.45	4.22	4.68
Entertainment (movies, theatre, sport, etc.)	42	1	4	2.40	2.17	2.64
Shopping (shops, malls, markets, etc.)	42	1	3	1.71	1.47	1.96
Hospitality (hotels, bars, restaurants, cafes, etc.)	42	1	5	3.05	2.78	3.31
Nature (parks, beaches, wildlife, etc.)	42	3	5	4.71	4.56	4.87

Interviewees for all six sites were predominately female (54.8%) (Table 4-105) and skewed towards older age brackets, specifically 65+ (35.7%) (Table 4-105). When questioned on which factors they consider important for their holiday or travel plans, interviewees mirrored

survey respondents, though generally ranking each factor more extreme (i.e., the top three factors remained the same but were rated as *more* important, and the bottom three factors remained the same but were rated as *less* important) (Table 4-106). Interviewees were also asked about their perspectives on the economic impacts of tourism to a site. Specifically, they were asked how much they think the average visitor would spend to visit a site, and whether or not they would prioritise economic concerns over an engaging and meaningful experience. Overall, interviewees *overestimated* the average spend for visitors to a site, citing an average figure of $67.38. Though the exact reasons behind interviewees' consistently incorrect estimation across sites was not something addressed by this study, it is reasonable to speculate that many perceive the tourism industry to be an aggressively capitalistic entity, one that is generally far more profitable than it actually is. Accordingly, most interviewees believe that 'enjoying [a] site and getting a meaningful experience' is just as important as 'spending money' to see a site. The remaining 29% of interviewees believe enjoying a site and getting a meaningful experience is *more* important than visitors spending money, while *no* interviewee believes that spending money at a site is more important than getting a quality experience.

4.7.5 Discussion

The average cultural heritage tourist in South Australia comes from the state itself and is often travelling as part of a family cohort for a single day, visiting maritime cultural heritage sites they have visited before. They primarily take nature and a site's natural features into consideration for their travel plans while seeking locations that will help strengthen their interpersonal relationships. Visitors are also generally motivated by their desire to experience and engage with cultural heritage, though engaging in a range of physical activities is also a common pursuit. Regardless of group composition and size, however, visitors spend an average of $53.02 per person per day across the six sites, totalling $10,829,625.55 in direct expenditure annually. These numbers are significant in and of themselves, as such estimations are currently lacking across South Australia. However, the attribution factors (89.14% for the South Australian Maritime Museum, 41.46% for the Garden Island Shipwreck Graveyard, 87.51% for Clipper Ship *City of Adelaide*, 44.12% for Port Willunga, 34.06% for ex-*HMAS Hobart*, and 34.10% for Rapid Bay) paint a far more granular picture regarding the state of maritime cultural heritage tourism in the state. Those sites which have a higher attribution factor tend to be marketed (unsurprisingly) more for their heritage assets than those with lower attribution factors, with ex-*HMAS Hobart*, being the arguable exception. Longitudinal studies may reveal if cultural heritage tourism engagements and promotions at the remaining sites will also increase their attribution factors.

The sociocultural value of these sites is derived from the emotional connections almost *all* respondents and interviewees expressed experiencing. Collectively, the data suggests that place attachment broadly and positively correlates with the intention to engage in pro-heritage and pro-environmental behaviour (Table 4-104) (place attachment means of 3.30 for the South Australian Maritime Museum, 3.46 for the Garden Island Shipwreck Graveyard, 3.55 for Clipper Ship *City of Adelaide*, 4.11 for Port Willunga, 3.28 for ex-*HMAS Hobart,* 3.69 for Rapid Bay, and 3.63 overall across sites). However, a number of unique and unexpected trends were also observed across sites. For example, place social bonding appears to positively correlate more strongly with an increased likelihood of 'low effort' behaviour than 'high effort' behaviour (this was observed at four of the six sites), but the opposite trend is true for *all* other types of place attachment (which *always* positively correlated – to some degree – with an increased likelihood of 'high effort' behaviour at *all* sites). Additionally, and despite the fact that the strength of an individual's experience of a discrete *place attachment type* almost always positively correlated with an increased likelihood of engaging in pro-heritage and pro-environmental behaviour, three of the six sites returned an overall *disinclination* in the population to engage in 'high effort' behaviour at all (the South Australian Maritime Museum, the Garden Island Shipwreck Graveyard, and Rapid Bay).

On a pragmatic level, this makes sense; those who rely on a site for their personal identity (i.e., interviewees) or to partake in their preferred recreational activities on a regular basis, are already far more likely to expend the required resources to engage in 'high effort' behaviour. Additionally, at least two of the sites constitute beaches or waterways that offer a medium for many activities readily available elsewhere (it is possible to go kayaking at most beaches or waterways, for example), and heritage did not score highly as a concern for respondents at either site. Perception of a site's status also seemed to play a role; the South Australian Maritime Museum (mean 2.53 for 'high effort' behavioural intentions), for example, is a heavily curated space that many respondents may have considered 'safe' since it is clearly maintained by a regulatory body (and therefore not in need of 'high effort' pro-heritage engagement). This may be the maritime cultural heritage equivalent of the 'bystander effect', in which individuals seek to minimise their own involvement based on the assumption that others are or will become involved anyway. Interestingly, however, the opposite was observed for Clipper Ship *City of Adelaide* (mean 3.44 for 'high effort' behavioural intentions) and ex-*HMAS Hobart* (mean 3.14 for 'high effort' behavioural intentions), both of which are also maintained by regulatory bodies. In the case of Clipper Ship *City of Adelaide*, the answer may lie in place affect and place identity, which both returned relatively high positive correlations (though place identity returned an even *higher* positive correlation at the Garden Island Shipwreck

Graveyard). In the case of ex-*HMAS Hobart*, the answer may simply be place dependence (there are few deep-water diving sites in South Australia).

As noted in the Garden Island Shipwreck Graveyard discussion section, one potential confounding factor which may have inflated the results for 'low effort' behavioural intentions across sites is social response bias. Respondents may have overreported their likelihood of engaging in 'low effort' behaviour for acceptability reasons, perceiving the researcher's questions as a kind of 'test of character'. Conversely, being honest regarding 'high effort' behaviour may be viewed as more reasonable, given the necessary expenditure of time and resources. Observational data certainly would support this, as respondents often felt the need to justify their lack of willingness to engage in 'high effort' behaviour, despite not being prompted to do so by the researcher. A question also remains as to the applicability of pro-environmental behaviour in general. While it is easy to see why most pro-environmental behaviour is *also* beneficial for heritage conservation, including pro-environmental question sets in this study may be recording a tendency among the population to care directly for the environment itself rather than cultural heritage, thus inflating the likelihood of sites encouraging 'low effort' behaviour related to heritage material.

Similarly, place affect regularly trended behind other forms of place attachment, except in the case of Clipper Ship *City of Adelaide*. This trend might simply be the result of the preponderance of the other *place attachment types* and particularly place social bonding, which suggests that many visitors travel to these sites specifically to engage with their friends and family. Under these circumstances, the sites themselves fulfil a mediating purpose rather than a defining one. While the data in this study affirms that the four measured *place attachment types* are indeed discrete types of attachment and that they all influence visitor behaviour patterns (or, at the very least, their behavioural *intentions*), it is clear that the model of inquiry either cannot be standardised as-is (the question sets need to be refined) or will require a certain degree of flexibility between sites (the question sets need to be semi-standardised). This is the most apparent in the place dependence question sets and was specifically demonstrated at the South Australian Maritime Museum and ex-*HMAS Hobart*. In both instances, respondents expressed confusion at the questions (albeit for different reasons).

For example, the question 'for the recreational activities I enjoy the most, the facilities offered here are the best' caused many respondents at the South Australian Maritime Museum to remark that, while they overwhelmingly enjoy coming to museums, it is *not* their preferred recreational activity. Many also went further to say that of the museums offered in Adelaide,

the South Australian Maritime Museum was their personal favourite, or among their favourites, suggesting a level of nuance not captured by the questions at this stage (a possible correction might read: for the museums I like to visit, the displays and content offered here are the best'). At ex-*HMAS Hobart*, respondents also had similar issues with the same place dependence questions, with many remarking that they would prefer to go diving in Palau or Saipan (or other pacific shipwreck diving location), but ex-*HMAS Hobart* was their preferred local deep diving site (implying it was a matter of convenience). Tweaking this question to be site specific could help render more accurate responses, for example: 'for all South Australian diving sites available to me, I prefer to go SCUBA diving here' would deploy clearer wording. Further research into how place attachment manifests in a maritime cultural heritage context is required to determine how question sets may be more accurately adapted.

Additionally, parsing the *objective* value of the scores amended to both *place attachment types* and *behavioural intentions types* (obtained by deploying Likert scales) is also difficult. Though statistical analysis can show that a *place attachment type* scoring (for example) 4.0 is positive and that its correlation of 3.89 to 'low effort' pro-heritage and pro-environmental behaviour is also positive, judging precisely the size and nature of that result relative to (for example) a 3.0 or 2.99 is complex at best. Consequently, values within the study are only subjectively comparable (4 is higher than 3.5 and statistically significant, but how this translates in the real world is esoteric). A potential path for future study would involve laying the groundwork to more objectively render such data.

4.8 Chapter Summary

This chapter presented the results from each site and then across all sites returned by its proposed model of inquiry. This includes ethnographic profiling, economic valuations, and sociocultural information, as well as a granular statistical and speculative analysis of the data. Unless stated otherwise, all results were tested for significance and effect size and proven to be applicable to the wider population visiting each site. Economically, the results suggest that maritime cultural heritage is an important element of tourism in South Australia, contributing over $10.8 million in *targeted* and *collateral* spending annually to the state and local business. Socioculturally, the results suggest that *all* types of place attachment generally influence the behavioural intentions of visitors to sites; if an individual's experience of place attachment is stronger, then they will usually engage in pro-heritage and pro-environmental behaviour. There is a marked difference, however, in the rate at which visitors might engage in 'low effort' behaviour versus 'high effort' behaviour, with 'low effort' behaviour much more likely overall. The results also present a number of unexpected trends, such as place social bonding's tendency to correlate more strongly with 'low effort' behaviour than 'high effort' behaviour. Overall, the results suggest that the model of inquiry used to obtain the data is valid, however, further research and refinement is necessary to obtain more reliable data and to produce a more reliable data-collecting toolset. The following chapter discusses and reviews the application of the adapted model before presenting recommendations on future research.

5 A Model in Review

'Now, bring me that horizon… and really bad eggs. Drink up me hearties, yo ho!'
— Captain Jack Sparrow, Pirates of the Caribbean: Curse of the Black Pearl (2003).

This project's goals were predicated on the need to develop a more utilitarian and actionable understanding of maritime cultural heritage sites and the roles they play within their local communities and the broader tourism industry. The project's methodology was designed to explore approaches that may facilitate the acquisition of such data in a semi-standardisable fashion, with the project itself constituting a pilot study of sorts. The project's methodology was successfully deployed and resulted in the collection of meaningful visitation, economic, and sociocultural data for all sites, but a discussion regarding the originality and overall cost-benefit of broadly adopting such an approach is also necessary. Consequently, this chapter reviews the outcome of the model's interdisciplinary approach to data collection, focusing on its profiling efficacy and the utilitarian value of its proposed economic and sociocultural delineations. This includes the project's use of recategorised *incoming* and *outgoing* economic value metrics and the deployment of place attachment types in concert with behavioural intentions types. This chapter also reviews the question sets and frameworks used in the survey instrument to determine which elements can or should be altered or adapted and which ones should be retained for cross-site data comparability and includes a discussion regarding the appropriateness of the question sets themselves.

5.1 Profiling Efficacy

Demographic questions are common throughout ethnographic survey style research projects. As discussed in Section 3.3, the profiling questions deployed in this project were drawn from comparable studies with widely published efficacy and were selected on the basis of their

relevance to ethnographic concepts common to both tourism and community archaeology. Consequently, the questions are simplistic in nature, and refer mostly to general demographic data points that can be fed through the project's proposed model of inquiry. Regardless of their apparent simplicity, such data is vital in building a visitor profile for maritime cultural heritage tourism sites, and can, in turn, be used to help create effective interpretation and promote sustainable on-site practises. Ultimately, the demographic portion of the data collection model served its purpose adequately, as demonstrated by the visitor profiles in Chapter 4. Nevertheless, there is room for improvement in future iterations of this model. For example, this project did not compare certain aspects of a visitor's education and income status, which may have resulted in a more granular understanding of the difference in visitor trends across sites. Furthermore, additional questions relating to marital status, ethnicity, employment, family and dependents, and language could also be included depending on the depth and breadth of the demographic profile a researcher seeks to create, or the nature of the sites under examination.

Similarly, the economic question set, while principally drawn from previous Australian heritage tourism research, can easily be modified for future maritime cultural heritage tourism research projects. In particular, and despite providing valuable insight into which percentages of trip expenditure are *due* to the cultural heritage assets of any given site, the question set deployed within this project provides little geographic insight into *where* money is being spent. Money considered *targeted spend* under the proposed model of inquiry may, in fact, be spent on something like flights in another country (if a visitor travelled from overseas to visit a site), making the nature and utilitarian benefit of the spend ambiguous or at best marginal from the perspective of the site's operators. Still, in a general cultural heritage preservation and tourism sense, it is important to capture such totals. Granulising the data may, however, catalyse poor profiling tactics (such as using extensive question sets that ultimately confuse or annoy participants or make their answers unreliable due to overly specific questioning). Precisely how a researcher may overcome this limitation is, at this point, unclear and not the focus of the present study. Nevertheless, doing so (and further determining if geography should alter what is defined as *targeted* or *collateral spend*) is important, as this currently represents a significant gap in the results' applicability.

Conversely, this project's use of spend type classification (i.e., accommodation, food and drink) produced demonstrably useful data (see Chapter 4). Separating trip spends into discrete categories provided valuable insight into which types were the most common, which types were the costliest, and which types may prove critical for increasing the viability of maritime cultural heritage preservation. Such classification also fed directly into the use of attribution

factor questions regarding visitor motivation, activity, and their opinion about cultural heritage. Expansions on these question sets may follow Carlsen's (2015) work, and include an analysis of how much money would be *lost* to local and broader economies if specific cultural heritage assets were not present within the landscape. Additionally, the motivation and activity attribution factor questions allowed respondents to give long answer responses, which were qualitatively assessed and again parsed into discrete categories. While this allows for more detailed and qualitatively appropriate answers, future adaptations of this framework could opt for a Likert scale response style for these questions to remove potential researcher bias on the interpretive level. This would come at the cost of reductive data, however, as a Likert scale does not generally provide respondents with space to explore and elaborate on their responses, potentially losing useful data. Other aspects of the economic question set (including raw data like visitor numbers and days visited/length of stay), are in-line with most ethnographic surveys and should be considered vital for future inclusion. Without such basic demographic data points, it would be impossible to determine the average spend per person, the average spend per day, and the average spend per person per day. While there is certainly room for some of the economic valuation questions to be modified or altered, and for more questions to be added, the set used within this project's framework still provides a strong foundational snapshot of the economic value of the maritime cultural heritage tourism industry in South Australia.

The sociocultural value question sets also produced strong results, as evidenced by the data discussed in Chapter 4. Arguably, the question sets demonstrably confirm a positive correlation between the experience of place attachment and the increased likelihood of people undertaking pro-heritage and pro-environmental behaviours, but not without raising new issues. In fact, it may be that asking only three questions per place attachment type and behavioural intentions type is ultimately too reductive to allow for affective inferences on the resulting data. Currently, the question set designed to determine and measure place dependence type worked well for most open, *in situ* sites, however, for sites like the museum and ex-*HMAS Hobart*, these questions need to be reworded for better applicability (divers on the ex-*HMAS Hobart* may be visiting the deep-water site because it is their only local option, but not their *preferred* option). Additionally, because these question sets revolved around determining a respondent's recreational proclivities, they proved misleading in a museum setting, where most respondents remarked that their 'recreational activities' did not specifically include visiting museums (even if the same respondents *did* note that they enjoyed visiting museums and that the South Australian Maritime Museum *was* their preferred South Australian venue for doing so). A potential solution may be to alter questions into a suitably analogous but *ad hoc* candidate; for example, changing 'for the recreational activities I enjoy

most, the settings offered here are the best' to 'for the museums I enjoy visiting, the setting offered here are the best', would still gage the correct variable, but eliminates confusion regarding the question's broader implications (which may not apply). A similar issue was observed with the same place dependence question at *ex-HMAS Hobart*. Many respondents remarked that their preferred shipwreck/deep-water diving location was actually somewhere else (often in Palau, Saipan, or elsewhere in the Pacific) so, for many respondents, this question was problematic. A similarly analogous version of the question tailored to the site may read 'of the local dive sites available, I prefer visiting this site over any other'. However, while altering the wording of these questions sets might help make them more applicable to specific sites and respondent groups, this approach may also result in bias and data sets that are no longer strictly comparable. Consequently, further testing the question sets and undertaking statistical analysis will help future researchers to determine which place attachment types and question sets are the most applicable and appropriate for maritime cultural heritage tourism sites.

Another modification recommendation involves the expansion of place attachment question sets based on the inclusion of more place attachment types. While the current set of four place attachment types is grounded in current psychological study and provided useful baseline data, many respondents during the survey and/or interview expressed views that suggest the set may need to be expanded or, at the very least, more clearly differentiated. As attachment is a complex and multidimensional person-place-process, the four attachment types proved broadly representative, but lacked the comprehensive cohesion they demonstrate in more strictly psychological contexts, failing to account for some of the more nuanced ways individuals may experience attachment to sites and events. For example, a fifth attachment type of 'place spirituality' with its own question set may actually represent a more delineated sociocultural phenomenon than can be adequately rolled into one of the other four common attachment types (Counted and Zock 2019). However, canvassing additional and/or original attachment types would require a lengthy test of applicability beyond the scope of a single study. Regardless, the results (discussed in Chapter 4) also suggest that the initially coded third question for place affect ('visiting this place says a lot about who I am'), does not currently fit within this particular place attachment type. This further indicates that there are addition hurdles to adapting the four-place attachment type structure to maritime cultural heritage may prove to be lengthy process.

The final question set for review refers to behavioural intentions type. This question set provided the most actionable sociocultural data for the project, and according to the statistical analyses performed in Chapter 4, accurately represented discrete categories of behaviour.

Surveying respondents' intended behaviour and dividing into low and high effort subcategories also resulted in a number of revealing discoveries regarding the relationship between place attachment type and behavioural intentions type. Longitudinal changes in responses to this question before and after the installation of interpretation or site amenities may also help to measure the efficacy of such alterations. Furthermore, if behavioural intentions type is considered in future studies, divisions of data analysis will become more standardisable over time, though differences between sites would have to be reflected in discussions (for example, the no on-site interpretation at Garden Island versus the significant on-site interpretation at the South Australian Maritime Museum). Nevertheless, there are issues gaging *intentions* rather than directly observing *behaviour*. For example, observational data suggests that the behavioural intention to '[tell] my friends/family to dispose of waste appropriately' may be unrelated to place attachment, as many respondents remarked that they would 'do this anyway' or that '[they] wouldn't need to as [their] family and friends know better'. Respondents may also have felt inclined to report their *intentions* in-line with desirable expectations, resulting in significant social response bias. It would require an experimental study design and resources far beyond the scope of this project to adequately observe a respondent's behaviour before, during, and after visiting a site to empirically confirm *actual* behavioural changes.

Apart from classification granulation, it may also prove useful to convert the 5-point Likert scale system used in this project to a 7-point Likert scale. As discussed in Chapter 4, the 5-point scale principally resulted in asymmetric or skewed non-parametric data. Expanding the scale to 7 points may assist in normalising the resultant data, thus making analysis easier. Despite the issues noted above, however, both the place attachment type and behavioural intentions type question sets largely proved to be applicable to maritime cultural heritage tourism sites, and effective in assessing both their *incoming* and *outgoing* sociocultural value. With few exceptions, the questions appeared to measure what they intended to measure, though exploring ways to better differentiate between types in both sets would likely benefit future applications of the model in question. Additionally, analogues need to be developed for questions to better account for cross-site variation between visitors and environmental factors. Otherwise, the question sets deployed in this project provide substantially useful baseline data for site comparison purposes.

5.2 Measuring Economic Value

Numerous methodological and theoretical approaches for calculating the economic value of sites (at least, in the case of tourism [see Section 3.4]) already exist, each with its own merits and limitations. Regardless, the resultant economic data is almost always communicated the same way: as the *tangible* value of a tourism site or cultural event. In the era of economic rationalisation, policy makers, organisations, and institutions often favour economic data over sociocultural for its more readily apparent utilitarian value and actionability. Under this framework, high visitor spends and personnel counts are considered better than the inverse, and any interpretation or sire alterations that will demonstrably result in raw economic advantages are favoured over (often more impactful) sociocultural ones. Indeed, the new South Australian Heritage Tourism strategy is relying on economic-based measurables to determine its own efficacy over time (at least for the first ten years). It is vital, therefore, that maritime archaeologists and tourism operators communicate the economic value of maritime cultural heritage tourism sites, as it has become fundamental to securing support for ongoing preservation efforts and a core component of understanding a site's modern value.

The model of inquiry used in this project is built on contemporary tourism practises and focuses on visitors self-reporting trip spends before applying an attribution factor to the reported totals. This was then used to determine the *targeted* (*incoming*) and *collateral* (*outgoing*) economic value of several sites. This produced generally useful data, but, as with all approaches, also had its limitations. As discussed in Section 5.1, the most prominent issue involves the lack of geolocational data (*where* visitors spent their money) for attribution purposes. Conventionally, economic models of inquiry frequently require researchers to compute direct *on-site* spends or spends within a site's immediate geographical boundary. Since many maritime cultural heritage sites are remote or require special circumstances to access (such as necessary travel or the acquisition of specialised equipment), this excludes many potential instances of the site injecting money into local, intrastate, interstate, or international economies. Calculating the *true* economic value of maritime cultural heritage tourism sites through conventional, geolocationally locked methodologies therefore becomes infinitely more complex and, in many cases, ambiguous. How can any spend be considered "on-site" if the site itself is ten nautical miles from the coast and dozens of metres below the surface of the ocean? While some scholars have enjoyed a measure of success using geographical spend to estimate the value of *in situ* underwater sites (Beattie-Edwards 2013), in cases like that of ex-*HMAS Hobart*, geographical boundaries are difficult to determine and arguably arbitrary to a degree. The model of inquiry deployed in this study removes the most

direct problems with using “on-site” spends and geographic guesswork, assessing economic value as a function of *whole* trip spend regardless of where that money is spent.

This comes with its own limitations, however, such as reducing the model’s obvious applicability to local communities and site operators. Distinguishing between *targeted spend* and *collateral spend* theoretically accounts for this by allowing the model to differentiate between a site’s direct and indirect economic benefit to local communities. However, even this distinction did not negate the issue of geography *entirely*, as spends still end up including incidental expenses that may have very little to do with the presence of a heritage site. Using the ex-*HMAS Hobart* as an example, divers who pay a commercial company to take them out would have their fees included in their spend, but the dive companies in Adelaide are overwhelming located within the Adelaide metropolitan area (in fact, the company that takes people out most regularly is located 104 kilometres from the marina where divers leave to visit the site). Ex-*HMAS Hobart* is also not the only diving site the company conducts tours to, so should a coffee purchased for lunch on the drive to the marina itself be considered part of the site’s economic value, or just a consequence of going diving with the company? Liberally, all money spent while travelling to and from the site (including on petrol and food) *should* constitute part of its economic value, but are these spends then considered *targeted* or *collateral*, and how much of either is actually *relevant* to the site’s stakeholders?

5.2.1 Differentiating Between Targeted and Collateral Spend

Clearly, using a strategy of subjective determination is insufficient. Therefore, the concept of the attribution factor (drawn from previous research in tourism) was applied to calculate a more definitive type of *targeted* spend classification. The attribution factor is a mathematically derived estimate stating what proportion of a visitor’s spend can be confidently parsed as *targeted* (i.e., as a specific result of attempting to experience the cultural heritage material at a site). As discussed in Section 3.4.2, the attribution factor is a percentage based on visitor motivations, their activities, and how important they consider cultural heritage. The *targeted spend*, in the case of this project, has been labelled the *incoming* economic value of a site because it represents the portion of the spend *directly attributable* to the presence of maritime cultural heritage, while the remaining *collateral spend* has been labelled the *outgoing* value of a site because it represents the portion of the spend *incidental* to the presence of maritime cultural heritage (if the site was, for example, an amusement park, the *collateral spend* would still exist) (Figure 5-1) . Presenting the economic value of a site in this manner is not common practise in previous research (see Sections 2.2 and 3.4), however, doing so helped to differentiate the economic value between sites as general tourism destinations and as

communicators of maritime cultural heritage, which helps explain *why* people spend the money they do to visit such sites.

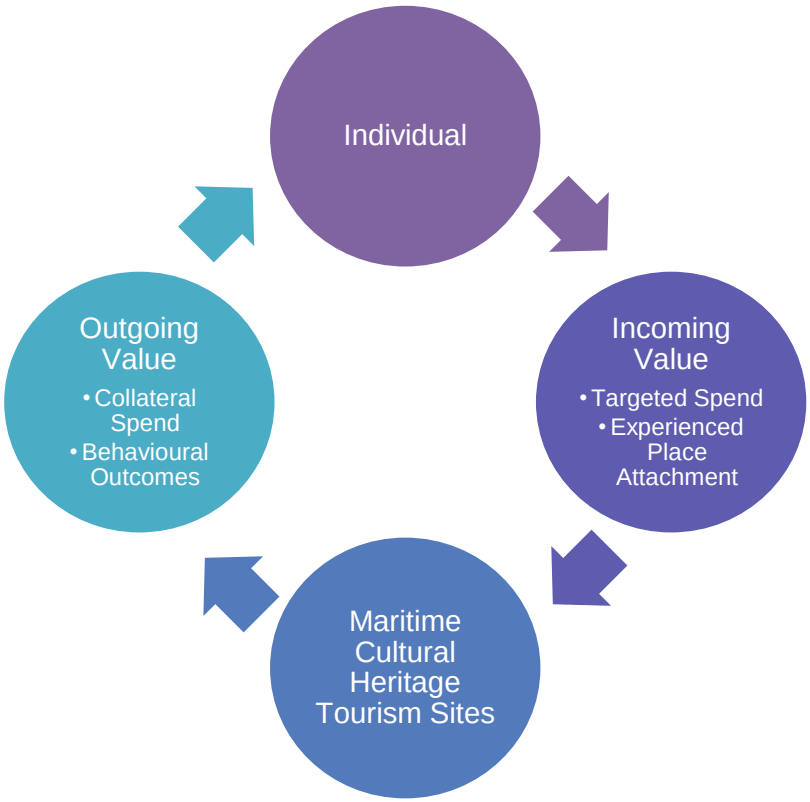

Figure 5-1 Proposed model for calculating the incoming and outgoing social and economic values of maritime cultural heritage tourism sites.

Though the attribution factor removes the arbitrary nature of subjective determination and provides a more objective degree of confidence to the final split between *targeted spend* and *collateral spend*, it still fails to entirely remove the issue of geolocation. As suggested in Section 5.1, it may be that the best way to determine *where* money is being spent is to directly ask within question sets, though this may constitute an over-reliance on self-reported memory on behalf of respondents. The survey tools delivered in this project *did* ask participants to split their trip spends between spend types (i.e., accommodation, food, entry fees, travel), but never enquired into the *location* of the spend. Again, while participants may report a spend for 'food and drink', this does not automatically equate to money injected into a local community *at* a maritime cultural heritage site. In the instance of Port Willunga, for example, these spends may relate to a spend at the Star of Greece Café, or it may relate to a spend at the Aldinga shops, petrol station, or another nearby café, or one on the other side of the state. Consequently, inferences cannot be made from this data set regarding the annual income of

businesses like the Star of Greece Café, since geolocation was not an explored factor. Again, this reduces the model's obvious applicability to local communities and site operators.

Regardless, the broader economic value of a site's maritime cultural heritage becomes far more apparent through the *targeted spend*/*collateral spend*/attribution factor system than more conventional "on-site" fiscal surveys. For example, respondent 185 visited the South Australian Maritime Museum as part of an onshore cruise ship tour. Despite being an international visitor on their first trip to the museum, the respondent identified heritage as a moderately important consideration for their travel plans, and their principal motivation for the majority of their activities was to see and engage with the museum and Clipper Ship *City of Adelaide.* Consequently, this respondent's attribution factor resulted in a relatively high *targeted spend* (approximately 91%), suggesting that the presence of maritime cultural heritage was responsible for the majority of their expenses. Depending on their answers to the survey questions, other participants had different *targeted spend* to *collateral spend* ratios. For example, respondent 63 (who visited Port Willunga) identified heritage as very important for their travel plans and the principal motivation for visiting the site as 'walking the beach and [looking] at the jetty and archaeological sites'. Again, the attribution factor suggested that the majority of their spend (approximately 66%) was *targeted*, while the remaining spend (approximately 33%) was *collateral*. These two case studies are important examples as respondent 185 experienced no place attachment to the South Australian Maritime Museum (Appendix G, Table G-1) while respondent 63 reported place attachment through place dependence (Appendix G, Table G-4), suggesting that economic and sociocultural value are not always linked.

5.2.2 Limitations of the Attribution Factor

Though using definitional terms like *targeted spend* and *collateral spend* is original to this project, the attribution factor itself has been used in previous economic valuations within the Australian cultural heritage tourism sector as it accurately represents how much visitors will spend to visit the site (Carlsen and City of Perth 2008, Carlsen 2015). While proven to be effective in assessing the percentage of economic contributions cultural heritage sites make to the tourism industry, the use of the attribution factor, depending on how it is used, can be prone to misrepresenting fiscal opportunities for nearby communities. One example is Herculaneum, as discussed by Court et al (2019). Allegedly, the nearby town of Ercolano receives limited economic benefits from tourism to Herculaneum, as many visitors will see the site for about two hours before travelling back to Naples and Sorrento. Locals have limited employment opportunities at the site, which also applies to tourism-based jobs within their own

community. Currently, there are very few shops and services for tourists outside of the boundaries of the site and due to this, visitors are disinclined to visit Ercolano, inhibiting the development of more services, despite the relatively promising economic value associated with Herculaneum itself that attribution factors would indicate. So even though attribution factors can help clarify how and why visitors spend their money, they can also result in misleading numbers that do not translate into immediate benefits for local stakeholders.

Additionally, attribution factors still rely on a visitor's capacity to self-report their economic spend. As with all subjective determinations, these figures can be consequently inaccurate, a fact that may stem from two principal causes. The first is how participants interpret and understand the implications of words like 'holiday', 'vacation', or 'trip'. As with the above examples (survey respondents 63 and 185) one respondent provided the annual expenses incurred for their repeat visits to the site, while the other only included the cost incurred during their onshore tour. Clearly, what constitutes a 'trip' can vary greatly between respondents, especially if the trip is continuous, regular, or ongoing. The second cause is the questionable reliability of any figures provided by a respondent. Because surveys were conducted *during* their trips, many figures were likely either misremember, estimated, or based on future expectations if the visit to their respective sites took place part way through a longer journey. Additionally, visitors may not even *know* the exact amount they have spent, especially with the modern advent of contactless and buy-now-pay-later facilities like PayWave, and Afterpay. Unfortunately, without highly expensive and curated longitudinal studies, acquiring exact and verifiable trip spends is extremely impractical, and would, for example, require visitors to keep all purchase receipts before the trip is undertaken and surrender them upon completion. Consequently, while relying on self-reported estimations has issues, it is largely unavoidable in today's world.

5.2.3 Refinement of the Question Sets

While the adapted approaches used to determine economic value within this project proved versatile enough to be effectively applied to all six selected sites, further refinements related to the type and style of the economic question sets posed within the survey are possible (and even recommended). First, questions relating to trip spend asked visitors about their *overall* trip spend regardless of *where* they spent that money. Refining these questions to explore specifically local spends could potentially provide deeper insights into the spending patterns and behaviours of visitors and preserve the model's value to local communities and site operators. As an example, visitors to ex-*HMAS Hobart* spend limited money in the nearby townships of Yankalilla and Normanville due to the absence of SCUBA diving facilities or

shops. Though efforts were taken to accommodate the removal of geo-locked data points, understanding precisely where money is injected into an economy is still arguably important knowledge.

Additionally, while the inclusion on the attribution factor proved vital in computing the *incoming* and *outgoing* economic value of maritime cultural heritage tourism at the selected sites, the questions used to calculate it were principally in long answer form, leaving ample room for subjective interpretation. Changing these questions to multiple choice (as with the importance factor question) may provide more comparable insights into the motivations and activities of visitors, and, indeed, many respondents often provided limited responses to these questions anyway. In the case of Rapid Bay, for example, these frequently involved a respondent's main motivation for visiting or activities they engaged in, which often came back in terse terms like 'SCUBA diving', 'camping', or 'fishing'. While these responses provide the desired information, they also provide scant insight into the drivers behind visitors, making attribution factor calculations less reliable. Multiple choice variations could mimic Carlsen's (2015) work by providing lists of importance variables for visitor motivation and activity. Additional long answer questions could provide a check for the researcher, granting space to include and explore sociocultural depth without necessarily colouring the attribution factor with subjective interpretations. Other improvements to the model may take the form of economic multipliers. As discussed in Section 3.4, economic multipliers are commonly used in other areas of the world to draw conclusions about direct and indirect tourism revenue catalysed by destinations and locations. While they have not been used in this model, their addition in future projects may prove helpful in determining the ongoing economic impact of maritime cultural heritage tourism sites.

5.3 Measuring Sociocultural Value

Sociocultural data is notoriously harder to parse than economic data due to its inherently subjective nature. In fact, in addition to their general applicability, the methods selected for use with this project were drawn from psychological literature *because* of their objective and classificatory nature. Place attachment is, in the end, a way of categorising and comparing the type and depth of emotional connection individuals experience to sites (including those associated with cultural heritage), and studying behavioural intentions adds a quantifiable layer to the qualitative discourse. Within this project's model of inquiry, place attachment type is considered the *incoming* sociocultural value of a maritime heritage site because it is an element of connection that develops within an individual, while behavioural intentions type is considered the *outgoing* sociocultural value because it is the element of connection that causes an individual to affect change in their environment. this is considered the incoming value of maritime cultural heritage tourism sites. In scientific terms, place attachment is not a strictly tangible quality to site operators while behavioural intention *is* (Figure 5-1). This does not mean that place attachment is completely subjective or useless; in fact, this project sought to objectively link place attachment *with* behaviour intentions. At the very least, the potential psychological effects of place attachment on visitors regardless of their behaviour intentions may have broader implications on the individual, their travelling group, and society at large. Indeed, the only way to combat the vague and simplistic rhetoric of 'public value' and 'everybody loves a shipwreck' is to delve into the sociocultural impact of attachment types, depths, and outcomes.

5.3.1 Defining Sociocultural Outcomes

Within this project, sociocultural value was measured as a function of both the type and depth of a respondent's experienced place attachment combined with their self-reported intention of undertaking pro-heritage and pro-environmental behaviours. Understanding how and why people experience an emotional connection to maritime cultural heritage sites and how these connections impact visitor behaviour provides useful information on what preservation and interpretation techniques best suit the site. As discussed in Section 3.5, place attachment is a complex and multi-faceted phenomenon that incorporates different aspects of a concept called people-place bonding, which also includes the interplay between affect and emotion. Previous research suggests that place attachment can have many positive outcomes on individual and collective mental health, even before behavioural intentions regarding pro-heritage and pro-environment behaviours are factored in (Rollero and De Piccoli 2010, Scannell and Gifford

2017). Notably, the term ‘well-being’ is often used to discuss positive sociocultural value within both archaeological and tourism literature. Unfortunately, due to the term’s ambiguously pliable meaning, it provides little objective support for site managers and practitioners when arguing against the potential destruction and ‘redevelopment’ of essential sites. Nevertheless, efforts to properly identify the nature of mental ‘well-being’ exist in both sociology and psychology. Scannell and Gifford (2014) have investigated and identified 13 specific psychological ‘well-being’ benefits people gain from experiencing place attachment in particular, including positive memories, a sense of belonging, relaxation, positive emotions, activity support, comfort, self-growth, personal control, entertainment, an experienced connection to nature, other practical benefits, privacy, and a sense of aesthetic pleasure (Figure 5-2) (Scannell and Gifford 2014).

Figure 5-2 The thirteen benefits of experienced place attachment as identified by Scannell and Gifford (2014).

Though broad, these benefits each have their own impacts on the psychologies of an individual or group, and help people find happiness and comfort in the physical landscape they find themselves in. Positive memories, for example, may refer not only to the formation of new memories when visiting the site, but also the memorialisation of past events that may feed into an individual's sense of identity. If nothing else, maritime cultural heritage sites serve as symbolic time-machines that provide individuals, families, and societal groups with a sense of continuity over time. Importantly, it is this sociocultural value that archaeologists often argue is part of their inherent value to communities. Place attachment theory offers archaeologists a more objective framework through which to (partially) quantify and study the relationship between mental states and cultural heritage sites, and the corresponding psychological literature can potentially provide a medium with which to effectively communicate the value of such data. In fact, Scannell and Gifford go further, arguing that the destruction of sites may result in *negative* psychological outcomes for individuals and groups. Notably, Indigenous communities both in Australia and across the world have reported experiencing social harm after the destruction of cultural heritage material (Scannell and Gifford 2014, Allam 2021). Large scale place loss, specifically in dislocated Indigenous communities, has also been tied to increased rates of alcoholism, suicide, health problems, unemployment, and social and spiritual losses, which some communities never fully recover from (Fisher 1999).

While tying psychological well-being catalysed by place attachment to broad and abstract statistics like sense of identity and rates of alcoholism is all well and good, many of these numbers will still mean very little to smaller local communities and site operators. The relationship between place attachment and behavioural intentions proposed within this project is grounded in the concept of 'stewardship', a psychological connection upon which pro-heritage and pro-environmental behavioural intentions may form. As previously identified, scholars in both tourism and archaeology have argued that those who feel an attachment to locations often 'fight' to protect them. Though studies tend to focus on pro-environmental behaviours, cultural heritage assets and features often make up large portions of the sites scrutinised, and cursory evidence suggests people will often undertake pro-heritage behaviours to protect these elements as well as the environment (Siebert 2019, Bond 2019b, Eccles 2019, 'Plans to demolish heritage causeway at Victor Harbor prompts protest petition - ABC News' 2020, Washington 2020, Chapman 2021, Sutton 2021). It is vital, therefore, to granulise the relationship between cultural heritage, place attachment, and the behavioural changes it may affect, if not for the case of site preservation, then simply to ensure the public at large is aware of the potential psychological harm the destruction of cultural heritage material can cause.

5.3.2 Attachment Type and Attachment Depth

Parsing qualitative data through a quantitative lens is not simple. Within the context of this project, the adapted place attachment and behavioural classification system consisted of a four-dimensional substructure that scholars have argued represent the major “types” of a place attachment individuals are generally capable of experiencing. The substructure includes place dependence, place identity, place affect, and place social bonding. The question sets for sociocultural value asked respondents three questions per place attachment type and relied on Likert scales to gauge the depth to which respondents experienced each type (see Section 3.5). The question sets themselves were drawn from previous studies in environmental psychology (where they have been effectively applied to Australian nature-based tourism sites) but required modification to cover heritage material. Statistical analyses were then used to make sure the question sets were both measuring distinct variables and that each variable was statistically interacting with behavioural intentions type questions sets.

Using the data collected from respondents, statistical analyses were run using both MPlus and IBM SPSS (IBM Corp. 2017, ‘MPlus (Version 8). Computer Software’ 2018). The first test was a confirmatory factor analysis (CFA), which was followed by an exploratory factor analysis (EFA). These tested the results of each four-dimensional structure place attachment question set against both the other place attachment type question set results, and the results of the behavioural intentions type question sets. Importantly, both the CFA and EFA were undertaken in MPlus rather than in SPSS because MPlus offers more reliable analysis outcomes for ordinal data than SPSS (Beauducel and Yorck Herzberg 2006, Camacho et al. 2012, Wang and Wang 2012, pp. 30–80, Distefano and Morgan 2014, Dahlström et al. 2015, Lloret et al. 2017, Tan et al. 2018). Both the CFA and EFA tests confirmed that the question sets appeared to statistically refer to four distinct conceptual variables, with most questions confirmed and recoded into their initially apportioned place attachment type through factor analysis. The only place attachment question that failed to recode discretely was the third place affect question (Appendix H, Table H-1). Removing this question from the calculations and re-running the EFA provided stronger correlations for all questions within each sub-dimension (Table 5-1). This confirms that the place attachment questions presented to respondents and stakeholders overwhelmingly measured the four types of place attachment they purported to.

Table 5-1 Factor matrix table grouping place attachment questions into each factor.

Initial coding	Questions	Re-coded Factors/Dimension			
		PD-1	PA-2	PI-3	PSB-4
Place Dependence Q1	For the recreational activities I enjoy most, the settings offered here are the best	**0.615***	0.017	0.042	0.081
Place Dependence Q2	For the type of recreation activities, I enjoy I would not substitute this place for any other	**0.919***	-0.011	-0.016	-0.075*
Place Dependence Q3	I enjoy visiting this location more than any other historical place	**0.573***	0.200*	0.019	0.083
Place Affect Q1	I identify strongly with this place	-0.033*	**1.070***	-0.001	-0.017
Place Affect Q2	I feel this place is part of who I am	0.066	**0.643***	0.295*	-0.001
Place Identity Q1	I am connected to this place	-0.012	0.004	**1.025***	-0.025
Place Identity Q2	I feel a strong sense of belonging to this place	-0.003	0.011	**0.980***	0.011
Place Identity Q3	This location means a lot to me	0.027	0.293*	**0.557***	0.125*
Place Social Bonding Q1	Many of my friends and family visit this place	0.132*	0.249*	0.035	**0.411***
Place Social Bonding Q2	The relationships developed by visiting this location strongly connect me to this place	0.048	-0.047	0.12	**0.800***
Place Social Bonding Q3	This place allows me to connect with and get close to my friends and family	-0.054*	0.027	-0.042	**0.991***

Once the validity of the four types of place attachment was confirmed, each recoded type was tested for internal consistency using Cronbach's alpha test. Internal consistency tests assess how reliably survey questions measuring the same conceptual variable actually do so. For this project, the Cronbach's alpha test used the results provided from the MPlus EFA test (Table 5-1) and were conducted in SPSS. Generally, reliability is considered acceptable at the 0.6 to 0.7 range, with scores of 0.8 or above equating to very good reliability. However, values higher than 0.95 *may* indicate a level of redundancy within the question set analysed (Ursachi et al.

2015, p. 681). The results confirmed that all questions within the recoded maritime cultural heritage tourism place attachment framework reliably measured the attachment type they belonged to (Table 5-2).

Table 5-2 Cronbach's reliability tests for new place attachment dimensions.

	Cronbach's Alpha	N of Items
Place Dependence	0.748	3
Place Affect	0.937	2
Place Identity	0.946	3
Place Social Bonding	0.776	3

5.3.3 Capitalising on Behavioural Intentions

For the purposes of this project, behavioural intentions are, once again, considered the *outgoing* sociocultural value of maritime cultural heritage tourism sites (Figure 5-1) because they represent a site's capacity to affect observable change. Previous research suggests that when an individual or group experiences an emotional connection to a physical location (i.e., place attachment), they are more likely to undertake behaviours which would see the ongoing protection and preservation of these locations (i.e., pro-heritage and pro-environment behavioural intentions) (see Section 2.3.2). This generally results in a positive impact on the site, even if something like a single individual deciding to place rubbish in the bin rather than on the ground is considered a marginal benefit at best. Flow on impacts, however, can include community investment in a site, leading to popular support for conservation efforts (Eccles 2019, Dornin 2020, Washington 2020, Chapman 2021). Nevertheless, it is undeniable that there are a wide range of possible behavioural forms visitors may adopt after experiencing place attachment to a maritime cultural heritage site. To better granulise this variation within the results, behavioural intention types were classified as either 'low effort' or 'high effort', categories grounded in strategies deployed by previous research (see Section 2.3.2). Five-point Likert scales were once again used to determine the depth of likelihood a respondent would engage in each denoted behaviour, and it was therefore important to statistically test any classificatory division using the same techniques as place attachment type to ensure the associated question sets were, in fact, measuring discrete variables.

The initial CFA results confirmed the presence of two distinct factors ('low effort' and 'high effort'), however, and similar to the place attachment framework results, one behavioural

intention did *not* correlate strongly with either dimension. This behavioural intention was the second 'low effort' behaviour, 'learning about the local history' (Appendix H, Table H-2). This may be due to the variable nature of the task itself (an individual may, for example, learn about a site by reading a pamphlet, an arguably low effort behaviour, or by attending council meetings, an arguably high effort behaviour). Observational data also suggests that four of the five sites have limited to no on-site heritage-based interpretation, which would further exacerbate the subjective nature of the question, as respondents would need to undertake their own research once their visit is complete. The question was summarily removed from testing. Re-running the CFA and EFA analyses confirmed that the rest of the behavioural intentions to correlated with their originally coded low or high effort behaviour intentions type (Table 5-3). Similarly, qualitative observation suggested that the behavioural intention to '[learn] about the local history' scaled its perceived difficulty with how readily accessible interpretation was at any given site. Principally, respondents noted a desire to see more on-site signage detailing important aspects of a site, both historical and environmental. Many respondents at Garden Island, Port Willunga, and Rapid Bay also expressed a desire to see the explicit inclusion of Indigenous heritage and environmental stories at the sites, emphasising their importance to cultures both past and present. This data confirms the intuitive assumption that ease of access to educational material decreases the perceived effort of consuming such material.

Table 5-3 Factor matrix table grouping behavioural intentions questions into each factor.

Initial coding	Behaviour	Re-coded Factors/Dimension	
		1	2
Low Effort 1	Signing petitions in support of preserving the local heritage and environment	**0.560***	0.166*
Low Effort 3	Telling my friends/family not to feed the wildlife	**0.727***	0.025
Low Effort 4	Telling my friends/family to dispose of waste appropriately	**0.976***	-0.246*
Low Effort 5	Recommending visitation to family/friends	**0.659***	0.01
High Effort 1	Volunteering my time to help with local projects	0.015	**0.913***
High Effort 2	Participating in local community meetings	-0.054	**0.965***
High Effort 3	Writing letters in support of this place	0.225*	**0.686***

Once again, after confirming the validity of the recoded behavioural intentions types, a Cronbach's alpha reliability test was conducted to determine their internal consistency in SPSS. As with the place attachment question sets, the same standardised reliability scores

were used as a base measure (0.6 to 0.7 acceptable level of reliability, 0.8 or above very good reliability) (Ursachi et al. 2015, p. 681). All questions within the recoded behavioural intentions type categories reliably measure the same conceptual variables (Table 5-4).

Table 5-4 Cronbach's reliability tests for new behavioural intentions dimensions.

	Cronbach's Alpha	N of Items
Low Effort Behaviours	0.610	4
High Effort Behaviours	0.864	3

Once both the place attachment type and behavioural intentions type question sets had been confirmed as both valid and reliable, a structural equation model was created to test the causal relationship between them. The model in Figure 5-3 visualises the hypothesis that place attachment type correlates with (and therefore impacts) the likelihood people will report an intention to engage in a particular behaviour. The model was created and tested in the SPSS AMOS software (Arbuckle 2017) using the complete set of survey data.

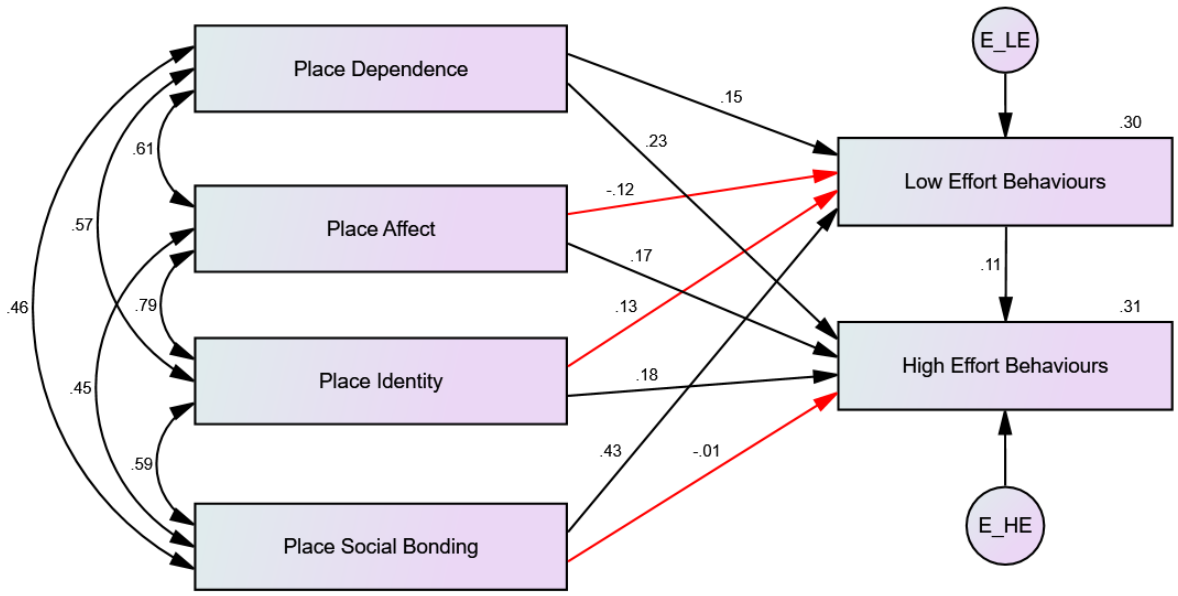

Figure 5-3 Structural equation model for place attachment and behavioural intentions.

The formation of an emotional connection to a place can be a complex process that may significantly influence an individual's mental and emotion state. It was important to use the structural equation model to test how each place attachment type correlated with each behavioural intentions type while countering for the other types of either category to ensure each interaction was statistically discrete. The results demonstrated variable correlations

between every single category. For example, a change in the depth of experienced place dependence by one standard deviation correlated with a change in the likelihood of a respondent undertaking low effort behaviours by 0.151 standard deviations (Appendix H, Table H-3). These correlations are observable along with the standardised regression weights in Figure 5-3 and Table H-3, with black lines depicting significant correlations and red lines depicting non-significant ones. Furthermore, observed place attachment explains approximately 30% of the variance in results between low and high effort behavioural intentions (Figure 5-3 and Appendix H, Table H-4). Finally, the structural equation model confirmed positive correlations between *all* place attachment types, ranging from a typical correlation (place social bonding and place affect [0.30-0.49]) to a much larger than typical correlation (place identity and place affect [0.70-1]), all of which are statistically significant (Figure 5-3 and Appendix H, Table H-5).

The structural equation model was integral in determining the correlation between place attachment type and behavioural intention type, which represents important data for several reasons. The first is that it can help site managers, practitioners, and governments create targeted visitor engagements and interpretation to help strengthen certain place attachment types. For example, providing more activity resources at Rapid Bay for both diving and fishing may help deepen visitors' place dependence on the locale, who would then be more likely to undertake both low and high effort pro-heritage and pro-environment behaviours. The second is that the insight granted by the structural equation model allows future researchers to more accurately assess the nature of an individual or group's connection to maritime cultural heritage sites, and to tailor their investigative techniques towards a site's strength. This also applies to expansions of the model itself. For example, scholars wishing to examine place attachment at Indigenous sites may decide to include a type of attachment based on the spiritual/ancestral connection local community members or Indigenous visitors may feel to the site. The structural equation model also revealed that not all measured forms of place attachment followed the assumption that deeper or stronger connections automatically result in higher effort behavioural intentions. Specifically, place social bonding bucked this idea, as it more often correlated with low effort behaviours than it did high effort behaviours. Nevertheless, however, the other forms of place attachment (when considering the complete dataset) all had stronger correlations with high effort behaviours.

5.4 Actionable Outcomes and Applicability

The model deployed within this project was designed to translate qualitative data into a quasi-quantitative state that could lead to actionable outcomes in the future for South Australian maritime cultural heritage tourism sites. At the very least, the information collected provides vital demographic insights into the current state of the South Australian maritime cultural heritage tourism industry as a whole, but there is also strong potential for the model of inquiry deployed herein to undergo further refinement to better address the issue of inter-site complexity. Significantly, building a stronger base of quantitative data points may also lead to increased levels of formal recognition for both the maritime cultural heritage tourism industry and archaeology as an academic practise. Standardising data to a degree is something the industry currently struggles to do (perhaps because so much can depend on its subjective nature) but finding more communicable and objective measures with which to pursue positive outcomes can help guide future tourism ventures and maybe even begin to mend the hostility between the academic discourse and the tourism industry itself. This section will explore some of the practical benefits and the general applicability of the work contained within this project. It will also discuss the limitations of the current study, and close by looking ahead to future research possibilities.

5.4.1 Practical Outcomes

The advantages of studies conducted through this project's model of inquiry are readily apparent for site managers, practitioners, and businesses. The nature of the demographic data alone grants a more poignant insight into who is visiting South Australian maritime cultural heritage sites far beyond the current absence of such data allows. Even without additional analysis, site operators can use these insights to target specific groups and encourage repeat visitation or increase visitor diversity, which has the obvious effect of drawing more visitors in (which can be both positive in an economic sense and negative in a site preservation sense). An increased range of visitors can help a wider array of people experience and potentially develop place attachment to a site, cultivating positive emotional connections to cultural heritage material. This can also indirectly help individuals bond with others, potentially leading to mental health improvements. Of course, as discussed in Sections 3.5 and 5.3, strong place attachment is usually positively correlated with higher effort pro-heritage and pro-environmental behavioural intentions. This has the potential to positively impact not only the site in question, but many sites both now and in the future, depending on the nature of the behaviours place attachment can influence.

Furthermore, as behaviour is technically an observable variable, place attachment can be used as a measure of quantitative benefit. As an example, the data collected in this project suggests that site managers could install more features at Rapid Bay allowing for both fishing and diving to intensify visitors' place dependence attachment to the site (perhaps including fish washing, gutting, and cleaning stations, and/or stations to wash gear and fill tanks for divers). Doing so may increase the diversity of visitation groups (fishers and divers) and deepen the dependence connections of current visitor groups to encourage more pro-heritage and pro-environment behaviours. Behaviours like 'learn about local history' could also be used to measure the success of tourism installation signs longitudinally and could catalyse other forms of place attachment in visitors as well. Conversely, the practical benefits of the economic data are relatively more simplistic. By understanding both the *targeted spend* and *collateral spend*, site managers, operators, practitioners, and business owners can effectively communicate how much money these sites bring into the broader community and help preserve their presence. The economic data also demonstrates that maritime cultural heritage tourism can be a viable sub-industry of tourism, with its own visitor profiles and economic influences and is therefore essential to the industry's push for greater recognition.

5.4.2 General Limitations

This project's most profound limitations were the result of its limited resources. Despite its wide scope (six sites and several broad categories of data) its results suggested that more research needs to be conducted before solid conclusions can be drawn. First, this project has broader implications for other cultural heritage and maritime cultural heritage tourism sites, however, the demographic site surveys only examined sites relevant to the South Australian industry, and, consequently, only representative of visitor populations within that state. Assumptions of the sociocultural and economic values of similar sites interstate or internationally cannot be inferred with a high level of confidence from this data alone. It can, however, act as a base line for the collection of similar data in other locales. Nevertheless, it should be noted that the data as it pertains to convenience sample groups *is* comparable to other studies and the broader population due to the use of statistical confidence intervals (CI upper and lower 95%).

Second, inherent limitations also stem from the use of non-monitored free-to-access sites. While such sites were *deliberately* included to ensure a diverse snapshot of data was captured, it is difficult to accurately estimate visitation data when no monitoring systems capture who or how many people enter a site on a regular basis. Third, investigating sites that have limited, reduced, or heavily seasonal visitation restricts the potential pool of participants,

and may have resulted in contracted or inflated visitor number estimations. The fact that the study was conducted over the summer period when visitation is high to most sites suggests some estimations (particularly those relating to unmonitored sites like Port Willunga) may be inflated or underestimated to a degree. Additionally, quantitative research often requires a minimum number of survey responses (frequently a few hundred) to reliably conduct a range of statistical tests. Consequently, sites with a total visitor pool of a few hundred or less, and response rates in the low 10s, reduces the statistical reliability of the resultant data, even if the total percentage of surveyed respondents is, overall, relatively high. Ex-*HMAS Hobart* is a specific example of this, with only 268 individual site visitors and 26 total survey responses (which is approximately 10% of the total visitor population). This relatively low response rate poses issues for some statistical quantitative tests, and consequently, produced less reliable data than larger sites (despite being a smaller percentage of the total survey population).

Fourth, the practical realities of collecting survey responses also comes with an inherent set of limitations. As this study was the first of its kind in South Australia, it was deemed essential to minimise both responder and researcher biases by eliminating the potential for misinterpretation. To this end, only the principal researcher undertook on-site surveys to ensure engagement with potential respondents was as standardised as possible. However, limiting surveyors to only one researcher undeniably limited the number of responders for each site, as a single researcher cannot be present at each of the six sites every day. Similarly, it was not practically possible to examine the changing nature of place attachment types and behavioural intentions types over time (i.e., before and after visiting a site), as setting up a longitudinal and experimental study was not feasible. Nevertheless, the snapshot of data provided in this project still demonstrates the existence of significant sociocultural and economic value in maritime cultural heritage sites.

5.4.3 Implications and Further Research

Maritime archaeologists all over the world have increasingly been stressing the need for the types of data collected by the model of inquiry in this project, arguing that economic rationalisation is forcing a fundamental change in the way the field communicates the value of archaeological work (Beattie-Edwards 2013, Firth 2015, Scott-Ireton and McKinnon 2015). Finding ways to at least partially quantify data that primarily exists as qualitative information helps cultural heritage managers and tourism operators argue for the long-term protection and conservation of cultural heritage material. It also helps create definitive and easily communicable markers denoting the actionable sociocultural and economic value of such assets. Therefore, further research predicated on the model of inquiry used for this project

would need to continue blending tourism and archaeological approaches to site maintenance and conservation. Despite the hesitancy of either industry to work collaboratively with the other, only a combined theoretical framework and associated methodologies will produce actionable outcomes as governments and institutions gradually deprioritise heritage.

As discussed in Section 2.2, the tourism industry (including the South Australian Tourism Commission), and governments often equate value and success with economic gains (Section 2.2). This emphasis on economic value frequently comes at the expense of sociocultural value. Similarly, archaeology and anthropology tend to focus on a site's intangible qualities, leading to the advocation of methodologies with indiscernible outcomes. Breaking down these barriers will help normalise the inclusion of sociocultural value within tourism and the inclusion of economic value within archaeology, leading to stronger, unified voices. The use of place attachment theory as a measure of sociocultural value is an example of possible compromise. The insights gleaned by classificatory systems like place attachment may seem arbitrary to some, but it can undeniably assist managers and practitioners to create specific, targeted tourism-related products specifically for these visitors. The use of behavioural intentions in the survey data confirms that this is also data from a sociocultural perspective. Increasing a site's commercial potential in a way that will also cultivate pro-heritage and pro-environment thoughts and behaviours in visitors means victory for both fields, and a broader interest in site conservation.

5.5 Chapter Summary

This chapter reviewed the model of inquiry deployed within this project. It discussed the model's demographic profiling efficacy across all six included sites, as well as the nature and applicability of both the economic and sociocultural data collected. It made a number of inferences about the quality of this data and how it may be used to further the interests of both tourism and archaeology groups regarding the preservation of maritime cultural heritage sites. It also discussed some of the project's limitations and its broader implications on future research. Overall, the model fulfilled the research aims expressed in Chapter 1. Nevertheless, the model is evidentially incomplete and may need to be expanded and refined before the data collection range can be considered pragmatically comprehensive. In particular, modifications are suggested for the place attachment and behavioural intentions frameworks to ensure their broad standardisability and ongoing applicability. Despite the limitations of the project, however, the model proved to produce statistically reliable results, which could have ongoing implications for the study of cultural heritage and maritime cultural heritage tourism sites in Australia and across the world.

6 Conclusions

'We are tied to the ocean. And when we go back to the sea, whether it is to sail or to watch - we are going back from whence we came'.

— John F. Kennedy, 1962.

This research project was motivated by a need to develop a methodologically sound approach for assessing the actionable sociocultural and economic value of maritime cultural heritage sites. Cultural heritage has long been recognised for its inherent value to society and for their financial contribution to economies when marketed appropriately (for example, Stone Henge, Pompeii, Pyramids at Giza, Machu Picchu, Terracotta Warriors, Gettysburg, etc.). Yet, its submerged counterparts go relatively unrecognised, notwithstanding the notable few (for example, *Vasa*, *Mary Rose*, *Titanic*, *Queen Ann's Revenge*) and even then, most members of the general public will probably be less familiar with the latter list of examples than they are with the former. Consequently, maritime cultural heritage sites tend to be less discussed and less studied, their inaccessibility resulting in a kind of 'out of sight, out of mind' mentality, often leaving them forgotten. This, more than anything, creates an aura of mysticism, and a story about the Kraken rising from Davy Jones' Locker certainly captures the imagination, it quite notably leaves the facts behind. No one form of cultural heritage (terrestrial, intertidal, or submerged) is inherently more valuable than another, but the clandestine nature of the intertidal and the submerged mean that they are simply engaged with less. Scholars already argue that archaeologists need to do a better job analysing maritime heritage and subsequently communicating with the broader public, and this project was designed to begin such a conversation; to move the discourse away from mysticism and assumptions of value into the acquisition of actionable data. In short, it was designed to help the field understand the sociocultural and economic value of maritime cultural heritage in South Australia using a semi-standardisable, interdisciplinary model of inquiry.

While this project's primary goal was to constitute a pilot study testing the model of inquiry itself, it also focused on generating a baseline collection of quantifiable, communicable data points across disciplines for South Australian maritime heritage sites. Approaching the task from an interdisciplinary perspective was necessary given the project's scope and the significant number of compatible resources it had to utilise. It adapted approaches from tourism, psychology, economics, and statistics in its endeavour to create the model of inquiry, test its applicability, and assess its effectiveness. Revising former approaches rather than recreating the proverbial wheel helps this body of work fit within the larger discourse and thrusts studies of a similar nature to the forefront of interdisciplinary discussion. It also encourages future collaboration between archaeology and tourism on achieving positive outcomes for maritime heritage sites, combating the tendency for practitioners in either field to examine sites solely within their respective silos of study. Finally, an interdisciplinary model of inquiry allows for a more comprehensive interpretation of datasets which are also actionable to wider audiences, even if the argument is still principally academic right now. This project was therefore, in a sense, a pilot study to test whether a new model of inquiry *can* be deployed across maritime cultural heritage sites while proving useful within multiple disciplines.

Regardless, the need for such a model (or variations thereof) is vital to the future growth and success of cultural heritage preservation. Economic rationalising and the ambiguity around sociocultural value has, especially in Australia, seen governmental heritage departments slashed and cultural heritage sites demolished in the name of 'progress'. In the United Kingdom, economic rationalisation resulted in the closure of a world-renowned archaeology department, shunting students and topics into other disciplines. Indeed, it seems archaeology as a discipline can no longer rely on traditional sources of income for support without providing rigorous cost-to-benefit analyses argued in actionable and quantifiable terms. Tourism, despite how some archaeological practitioners may feel about the industry and vice versa, is an ideal industry with which to connect and forge a partnership, especially for maritime cultural heritage. Too long has the rhetoric 'everyone loves a shipwreck' been used to promote maritime cultural heritage departments and programs: while it plays into the romantic aura of the sites themselves, it fails to battle the forces catalysing relentless budget cuts and limitations of opportunity. This research, therefore, represents an attempt to bring this conversation forward in Australian archaeology and tourism, to begin halting the 'catch-22' cycle of funding and interest limitations facing maritime cultural heritage in Australia. It represents an attempt to answer the question *why* maritime cultural heritage should be preserved.

Essential to this is the generation of a baseline collection of quantifiable, communicable data points, the most basic of which taking the form of visitor profiles for South Australian maritime cultural heritage sites (and broadly, for the South Australian tourism industry). The demographic data collected for this project allowed the researcher to determine *who* visits maritime cultural heritage sites in South Australia, *where* they come from, *how* long they visit for, and who they travel *with*. At its most basic level, this information is vital to the production of engaging on- and off-site interpretation, as knowing one's audience (who to target and how to target them) is widely regarded as an important element in form of communication. Comprehensive visitor profiles for maritime cultural heritage sites in South Australia simply did not exist prior to this study, and what fragments did exist were scattered between the sub-disciplines of tourism and corresponding regional data. Accordingly, the average maritime cultural heritage visitor in South Australia is travelling intrastate (often on a day trip with friends or family) and are individuals who value and want to experience nature and sociocultural history in a relaxing environment at a location they have frequented before. They spend an average of $53.02 per person per day, or $190.26 for their entire trip, which differs from the reported $133 average spend per day for the national cultural heritage visitor. Notably, they usually won't seek out shopping and structured entertainment experiences and frequently use local eateries. They will likely undertake additional physical activities while on their trip, usually on-site. Of course, these profiles varied between sites. Such profiles can be extended through additional questionnaires, however, and future research can easily focus on refining our understanding of the subtle differences between the site-specific profiles. Of particular interest is if/how/why the profiles overlap with larger state-, nation-, and industry-wide visitor profiles, something that was beyond the scope of this project but would nevertheless expound the differences between the intrastate, interstate, and international cultural heritage tourist.

While demographics are of general importance, the more targeted advantages of this study were also made clear. Vital to the management strategies of local governments and business operators is the economic value of maritime cultural heritage sites; specifically, *how* much visitors spend to engage with sites and *where*. Until now, this information was only available for actively monitored sites, like the South Australian Maritime Museum or the Clipper Ship *City of Adelaide* (and partially available for sites like Rapid Bay via visitors to the campgrounds), many of which tend to be pay-to-enter. Conventionally, studies that assessed the economic value of cultural heritage tourism only include monitored sites, resulting in knowledge gaps and inaccurate data. Given that three of this project's selected sites were unmonitored, it has easily demonstrated that free-to-access sites can still have great impacts on local economies that go well beyond a single building's footprint. As expected, each site had different per person per day expenditure rates, with ex-*HMAS Hobart* recording the

highest rate (by a significant margin) of $107.32. The next highest per person per day spend was significantly lower at $66.67, which was recorded at Rapid Bay. The lowest per person per day spend figure was recorded at Garden Island and was $38.08.

Because each site's visitor numbers and expenditures are different, each site's overall economic income varies as well. Some sites had larger initial outlays than others, but this did not automatically equate to having a higher economic value. The ex-*HMAS Hobart*, for instance, had the highest per person per day spend but also the smallest number of annual site visits of any site, receiving an estimated 504 unique visitors every year. Comparatively, the South Australian Maritime Museum receives over 63,000 annual visitors every year. For these two sites, at least, annual visitation numbers are the most reliable due to site monitoring (along with the Clipper Ship *City of Adelaide*), with visitation numbers for the three unmonitored sites (Garden Island, Rapid Bay, and Port Willunga) relying more heavily on estimation. This still means that numbers for the three latter sites need to be considered cautiously, as the conservative estimates – while based on observational data – cannot be verified without firmer numbers and active monitoring. Nevertheless, annual visitor numbers to the remaining sites were still estimated to be well in the thousands (13,061, 10,000, and 40,000 respectively).

As a snapshot of the South Australian maritime cultural heritage tourism industry, the results of this project suggest that the sites in question contribute roughly $10.8 million dollars to the local economy annually. However, previous literature suggested that relying on raw visitation and spend numbers to gauge the economic value of heritage material in general is not necessarily accurate, despite the contribution being larger than initially anticipated. It is important to note that as impressive as that figure may be, it is also an oversimplification and overestimation of maritime cultural heritage's actual economic value. Arguably, all amounts of money accounted for by the overall spend figures was put towards visiting the sites in question, but a key question of this research is: was this money spent *in the pursuit of experiencing maritime cultural heritage features*? The distinction, while subtle, is the difference between an explainable anomaly – easily disregarded for the sake of progress – and an empirical number that defines the communally identified economic value of each of the maritime cultural heritage itself. The model of inquiry deployed within this research therefore expanded on currently popular methods of economic assessment to encompass *all* spends related to trip expenditure, while simultaneously denoting the *targeted spend* (or how much of a spend can confidently be attributed to the presence of maritime cultural heritage at a site) of each visitor by way of an attribution factor based on their motivational drivers.

Determining the motivational drivers of each visitor required a multifaceted and multipurpose set of survey questions that offered a deeper insight into the visitor profiles than basic demographics. It comprised three distinct parts: importance, motivations, and activities. 'Importance' referred to how important visitors considered the presence of cultural heritage material to their travel and experiential plans. In other words, how much does visiting cultural heritage sites (and, in this instance, maritime cultural heritage sites) impact their chosen travel destinations? 'Motivations' and 'activities' referred to determinations of *why* visitors selected a specific location to visit and what they planned on doing while there, subject to the location's spatial configuration, amenities, and other notable features (including the presence of other related or unrelated activities). As an example, many respondents at ex-*HMAS Hobart* identified SCUBA diving as their principal motivator for visiting the site as well as their principal activity, while at locations like the South Australian Maritime Museum, Port Willunga, and Rapid Bay, common motivators included 'having a nice day out' or 'relaxing' or 'getting away from the rat race'. Furthermore, the reported activities of visitors helped identify *how* they intended to achieve these motivational goals. Mathematically combining these three variables resulted in the attribution factor, which, when converted to a percentage, painted a more accurate picture of just how much maritime cultural heritage material contributed to each visitor's economic outlay and subsequent contribution to local economies. The overall attribution factor for maritime cultural heritage material at the sites in question was 54.23%, revealing that only $5.8 million of the initial $10.8 million spend can be contributed to the presence of maritime cultural heritage material.

Nevertheless, the importance of the attribution factor cannot be underplayed. Many governmental bodies, organisations, and institutions – whether rightly or wrongly – place an emphasis on economic as a metric of quantifiable and actionable value, requiring archaeologists and tourism operators alike to articulate value in terms that directly identifies heritage's contribution. Doing so also weaves economic and sociocultural value together; knowing if people are visiting the ex-*HMAS Hobart because* it is a shipwreck or simply because it is a convenient deep water diving location further defines its sociocultural contribution. Indeed, many professionals on both sides of the academic divide will surely agree that economic value *alone* tells only half the story, and that sociocultural value is also an important quality. To investigate the topic, this project adapted a system of analysis common to psychology and sociology: the place attachment framework. Operationally, this was deployed as a four-type structure that compared a visitor's type of place attachment (place identity, place social bonding, place affect, and place dependence) with their behavioural intentions (low effort, high effort). As a pilot study, the goal was to determine if these four types of place attachment are applicable to maritime cultural heritage visitors, and whether they successfully

measure a discrete type of emotional attachment visitors may express towards maritime cultural heritage. Both questions were definitively answered by the survey responses and subsequent statistical analyses: for maritime cultural heritage tourism sites in South Australia, the place attachment types *are* applicable and *do* measure discrete types of emotional attachment. However, the results ultimately raised more questions than they answered, suggesting that refinement of the model of inquiry is necessary. What other types of place attachment are applicable to maritime cultural heritage tourism sites (place spirituality, for example)? Would an expanded Likert scale assist in normalising the data? Do the averaged experience scores of each type of attachment have significant variations (and, if so, what are they)? What other potential factors might influence or contribute to an experienced emotional attachment?

Nevertheless, this approach allowed the researcher to make inferences regarding how place attachment and behavioural intentions interact to better target interpretation material and benefit the preservation of maritime cultural heritage (and demonstrating that closing the knowledge regarding the modern sociocultural value of maritime cultural heritage is a step in the right direction). Indeed, combining place attachment type with behavioural indicators (as potentially observable outcomes) creates a two-way sociocultural value exchange for both the visitors and the sites. The inclusion of the behavioural indicators allowed for a richer understanding of not only how visitors are impacted by maritime cultural heritage sites, but to what lengths they will go to protect them. Again, however, and while this research has proven that this type of academic inquiry is relevant and applicable to maritime cultural heritage tourism in South Australia, it also raises more questions than it answers. Does the type of behavioural intention impact someone's decision to undertake it regardless of its level of effort? Is the level of effort the only impacting factor? Can longitudinal studies identify people's type and depth of attachment as a function of their exhibited behaviours?

In addition, the correlation analyses conducted on these variables (place attachment versus behavioural indicators) has opened a new area of potential investigation, with distinctive differences apparent between sites but no widespread trend patterns emerging overall. Place social bonding, for example, correlated strongly with low effort behaviours at most sites (the South Australian Maritime Museum, Port Willunga, ex-*HMAS Hobart*, and Rapid Bay), but not at others (Garden Island and Clipper Ship). Similarly, the overall behavioural intentions averages, which generally demonstrated a disinclination for high effort behaviours and a significant inclination for low effort behaviours, appeared to be tied to the strength of each visitor's place social bonding (South Australian Maritime Museum, Rapid Bay). However, the results for one site demonstrated the *opposite* (Garden Island). Arguably, while the project

validated the model's applicability to maritime cultural heritage, it did not capture enough – or precisely the right – information to make the sociocultural data comprehensively pertinent across all sites, though the study still represents a clear and strong step in the right direction. Primarily, to determine the nature of the observed variations, the question sets themselves may need further refinement. This work also assessed place attachment and behavioural intentions insofar as they possess potential correlations: determining causation was beyond the project's scope. This makes it difficult to determine if visitors altered their behavioural intentions *because* of their experiences with the site or if such sites simply entice thus inclined patrons.

It should be noted that a number of in-depth interviews with members of the public who felt especially connected to the selected sites were conducted as part of this project. These interviews demonstrated how deeply people can become invested in maritime cultural heritage. However, because each interviewee had such a bespoke relationship with each site, extrapolating that experience to the general visitor was ultimately deemed inappropriate and misrepresentative. While each interview helped to shape the researcher's understanding of how individuals connect with sites (and thus, *does* contribute to their sociocultural value), they did not meaningfully contribute to the goal of the study itself. Ultimately, however, it is clear people are prone to connections with the marine environment, and that the public generally possesses an ongoing fascination with maritime history. In many cases, these connections may be sparked by the allure of fanciful concepts like pirates and stories of sunken/buried treasure, but often these connections run far deeper and encompass more than a passing interest in the fantastic. Effectively communicating the reality of these sites to the public expounds their modern economic and sociocultural value *without* replacing their scientific and historical value. Indeed, no one form of value is more important or acceptable than another form: they *all* feed into a larger understanding of cultural heritage, its contribution to past societies, its contribution to modern society, our knowledge of both, and the connections between. It's disappointing, then, that the value of maritime cultural heritage is often consigned to mysticism or reduced to raw dollars, leaving sites misunderstood, underrepresented, or ignored.

Nevertheless, we, as archaeologists, need to be communicating with and connecting people with sites appropriately. We cannot give a lecture or install a sign and assume these connections are being made. We need to assess our work and our methods to ensure the best outcomes for the public and the sites. This project confirms that when people can relate to a site, they *will* take steps – within their means, inclinations, and capabilities – to protect it. Doing these engagements effectively and translating them into a language that stakeholders

and interest groups can understand is no longer a nicety but a *necessity*. Providing evidence of actionable data in the form of economic and sociocultural value – data that will lead to observable outcomes – is the best way to gain greater public support. Continuing under the assumption that we are doing something noble, something intrinsically edifying, will only equate to reduced funding, reduced resources, and ultimately, a decreased ability to engage with the public overall. Now is the time to act. Now is the time to argue for these sites before them, their stories, and all the value they bring are lost forever. The public are willing. The public are invested. They are engaging, and we need to capitalise on it. It is up to us, therefore, as maritime archaeological and tourism site managers and practitioners to continue to connect the public with their maritime history, because if we fail, these stories and connections will be lost as 'the great shroud of the sea [rolls] on as it rolled five thousand years ago' (Melville 1892, p. 533).

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Appendix A – Survey and Interview Formats

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Information Sheet - Surveys

Title: Impacts of maritime cultural heritage sites to South Australian communities.

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Description of the study:

This study is part of a project entitled ‘Impacts of maritime cultural heritage sites to south Australian communities’. The project will investigate how the public interacts with maritime cultural heritage sites, and if, through this interaction, they experience an attachment to those sites. The six sites specifically chosen for this study are:

1. The South Australian Maritime Museum
2. Clipper Ship City of Adelaide
3. Garden Island Shipwreck Trail
4. Port Willunga foreshore
5. Rapid Bay beach

6. Ex-Hmas Hobart

This study is supported by the Flinders University Tourism and Archaeology Departments.

Purpose of the study:

This study aims to find out how much local community members and tourists:

- visit these sites;
- spend (in AUD) during their visits;
- appreciate the natural and historical features of these sites, and;
- derive their sense of individual and communal identity from these sites.

What will I be asked to do?

You are invited to undertake an online survey that will ask questions about your visitation to one of the six research sites. Questions will focus on how much time and money you spent during your visit, as well as any emotional connection you may have with the location you visited. The survey will take about 5-10 minutes to complete and participation is voluntary. If you wish to participate further, you may contact the principle investigator (peta.straiton@flinders.edu.au) to undertake a more in-depth interview regarding your visitation.

What benefit will I gain form being involved in this study?

Your participation in this study and the sharing of your knowledge will assist in our understand of how maritime cultural heritage sites are used and appreciated by modern society.

Will I be identifiable by being involved in this study?

We do not need your name and your answers will be anonymous. All responses will be stored in a password protected computer that only the researcher will have access to. Your comments will not be linked directly to you. You reserve the right to refuse to answer any question at any time.

Are there any risks or discomforts if I am involved?

The investigator anticipates few potential risks from your involvement in this study. If you have any concerns regarding anticipated or actual risks or discomforts, please raise them with the investigator.

How do I agree to participate?

Participation if voluntary. You reserve the right to refuse to answer any question and you are free to withdraw from the survey at any time without effect or consequences. Proceeding with the survey after reading this information sheet will be taken as consent.

How will I receive feedback?
Outcomes from the project will be presented in the final thesis.

Thank you for taking the time to read this information sheet and we hope that you will accept our invitation to be involved.

The research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project Number 8080). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035, or by email human.researchethics@flinders.edu.au

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Start of Block: Identity Questions

Q1 What is your age?

- ○ 18-24 (1)
- ○ 25-34 (2)
- ○ 35-44 (3)
- ○ 45-54 (4)
- ○ 55-64 (5)
- ○ 65+ (6)

Q2 What gender do you identify as?

- ○ Male (1)
- ○ Female (2)
- ○ Non-binary (3)

Q3 What is your postcode?

_____

Q4 Are you a member of an historical or community group or society?

- ○ Yes (1)
- ○ No (2)

Q5 Which location did you visit? Please keep in mind that this survey relates to the location you indicate here. If you have visited more than one location, please complete another survey.

- ○ South Australian Maritime Museum (1)
- ○ Garden Island Shipwreck Graveyard (2)
- ○ Clipper Ship *City of Adelaide* (3)
- ○ Port Willunga (4)
- ○ Rapid Bay (5)
- ○ Ex-*HMAS Hobart* (6)

Q6 When did you visit this location? Please provide an approximate date or dates.

_____

Q7 Do you identify as "local" to this location?

- Yes (1)
- No (2)

End of Block: Identity Questions

Start of Block: Economic

Q8 How many days did you spend visiting this location?

_____

Q9 How much money have you spent locally during your visit to this location? Please include expenses incurred over all days spent visiting this location and provide your best estimate in Australian Dollars.

- ☐ Accommodation (hotels, motels, airbnbs, etc.) (1)
  _____
- ☐ Travel (bus fare, fuel, parking, etc.; not flights) (2)
  _____
- ☐ Food and drink (hotels, restaurants, shops, etc.) (3)
  _____
- ☐ Activities (equipment hire, tours, entry fees, etc.) (4)
  _____
- ☐ Other (clothing, merchandise, souvenirs, etc.) (5)
  _____

Q10 How many people were covered by your spending (as detailed in the previous question)?

- ☐ Adults (1) _____
- ☐ Children (2) _____

Q11 During your visit to this location, did you travel as or with:

- ○ Individual (1)
- ○ Family (2)
- ○ Friends (3)
- ○ A larger group (4)

Display This Question:

If During your visit to this location, did you travel as or with: = A larger group

Q11a Please describe the group you were in and estimate the number of people who visited this location with you.

- ○ Tour group (1) _____
- ○ Work group (2) _____
- ○ Educational group (3) _____
- ○ Other (4) _____

End of Block: Economic

Start of Block: Engagement with location

Q12 Is this your first visit to this location?

- ○ Yes (1)
- ○ No (2)

Display This Question:

If Is this your first visit to this location? = No

Q12a How many times have you visited this location?

- ○ 1-5 (1)
- ○ 5-10 (2)
- ○ 10+ (3)

Q13 What was your main reason for visiting this location?

_____

_____

_____

_____

_____

Q14 What activities did you engage in or plan to engage in during your visit to this location?

_____

_____

_____

_____

_____

Q15 If this place did not exist, what would you have done or where would you have gone instead?

_____

_____

_____

_____

_____

Q16 In general, how important do you consider the following amenities when travelling?

	Not at all important (1)	Slightly important (2)	Moderately important (3)	Very important (4)	Extremely important (5)
Friends and family (1)	○	○	○	○	○
Heritage (museums, trails, experiences, etc.) (2)	○	○	○	○	○
Entertainment (movies, theatre, sport, etc.) (3)	○	○	○	○	○
Shopping (shops, malls, markets, etc.) (4)	○	○	○	○	○
Hospitality (hotels, bars, restaurants, cafes, etc.) (5)	○	○	○	○	○
Nature (parks, beaches, wildlife, etc.) (6)	○	○	○	○	○

End of Block: Engagement with location

Start of Block: Place Attachment

Q17 How strongly do you agree or disagree with the following statements regarding your visit to this location?

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (Neutral) (3)	Somewhat agree (4)	Strongly agree (5)
For the recreational activities I enjoy most, the settings offered here are the best (1)	○	○	○	○	○
For the type of recreation activities I enjoy, I would not substitute this place for any other (2)	○	○	○	○	○
I enjoy visiting this location more than any other historical place (3)	○	○	○	○	○
I identify strongly with this place (4)	○	○	○	○	○
I feel this place is part of who I am (5)	○	○	○	○	○
Visiting this place says a lot about who I am (6)	○	○	○	○	○
I am connected to this place (7)	○	○	○	○	○
I feel a strong sense of belonging to this place (8)	○	○	○	○	○
This location means a lot to me (9)	○	○	○	○	○
Many of my friends and family visit this place (10)	○	○	○	○	○

The relationships developed by visiting this location strongly connect me to this place (11)	○	○	○	○	○
This place allows me to connect with and get close to my friends and family (12)	○	○	○	○	○

Q18 Do you have any other comments specifically regarding what this location means to you?

_____

_____

_____

_____

_____

Q19 How likely would you be to engage with the following (hypothetical) activities at this location?

	Extremely unlikely (1)	Somewhat unlikely (2)	Neither likely nor unlikely (3)	Somewhat likely (4)	Extremely likely (5)
Sign petitions in support of preserving the local heritage and environment (1)	○	○	○	○	○
Learning about the local history (2)	○	○	○	○	○
Telling my friends/family not to feed the wildlife (3)	○	○	○	○	○
Telling my friends/family to dispose of waste appropriately (4)	○	○	○	○	○
Volunteering my time to help with local projects (5)	○	○	○	○	○
Participating in local community meetings (6)	○	○	○	○	○
Writing letters in support of this place (7)	○	○	○	○	○
Recommending visitation to family/friends (8)	○	○	○	○	○

Q20 Do you have any other comments regarding your visit to this location?

_____

_____

_____

_____

_____

Q21 To the best of your knowledge, are you the only person from your group (family, friends, larger group, etc.) to participate in this survey?

- Yes (1)
- Unsure (2)
- No (3)

End of Block: Place Attachment

Peta Straiton
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Information Sheet - Interviews

Title: Impacts of maritime cultural heritage sites to South Australian communities.

Investigators:
Ms Peta Straiton
Collage of Humanities, Arts and Social Science
Flinders University
Email: peta.straiton@flinders.edu.au

Supervisor(s):
Dr Gareth Butler
Tourism Department
Flinders University

Dr. Wendy van Duivenvoorde
Archaeology Department
Flinders University

Description of the study:
This study is part of a project entitled 'Impacts of maritime cultural heritage sites to South Australian communities'. The project will investigate how the public interacts with maritime cultural heritage sites, and if, through this interaction, they experience an attachment to those sites. The six sites specifically chosen for this study are:

1. South Australian Maritime Museum
2. Clipper Ship City of Adelaide
3. Garden Island Shipwreck Graveyard
4. Port Willunga foreshore
5. Rapid Bay
6. Ex-HMAS Hobart

This study is supported by the Flinders University Tourism and Archaeology Departments.

Purpose of the study:

This study aims to find out how much local community members and tourists:

- visit these sites;
- spend (in AUD) during their visits;
- appreciate the natural and historical features of these sites, and;
- derive their sense of individual and communal identity from these sites.

What will I be asked to do?

You are invited to undertake a one-on-one interview which will ask questions about your connection and interaction to one of the six research sites. The survey will take about 15-30 minutes. Your responses to the survey will be transcribed during the interview, and you will be asked to view the transcription immediately after the survey and sign off that you are happy with your answers. Participation is voluntary.

What benefit will I gain from being involved in this study?

Your participation in this study and the sharing of your knowledge will assist in our understand of how maritime cultural heritage sites are used and appreciated by modern society.

Will I be identifiable by being involved in this study?

We do not need your name and your answers will be anonymous. All responses will be stored in a password protected computer that only the researcher will have access to. Your comments will not be linked directly to you. You reserve the right to refuse to answer any question at any time.

Are there any risks or discomforts if I am involved?

Other group members may be able to identify your contributions even though they will not be directly attributed to you. The investigator anticipates few potential risks from your involvement in this study. If you have any concerns regarding anticipated or actual risks or discomforts, please raise them with the investigator.

How do I agree to participate?

Participation if voluntary. You reserve the right to refuse to answer any question and you are free to withdraw from the survey at any time without effect or consequences. Proceeding with the survey after reading this information sheet will be taken as consent.

How will I receive feedback?

Outcomes from the project will be presented in the final thesis.

Thank you for taking the time to read this information sheet and we hope that you will accept our invitation to be involved.

The research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project Number 8080). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035, or by email human.researchethics@flinders.edu.au

- ○ I agree to participate (1)
- ○ I dont agree to participate (2)

Start of Block: Identity Questions

Q1 What is your sex?

- ○ Male (1)
- ○ Female (2)
- ○ Other (3)

Q2 What age group are you?

- ○ 18 - 24 (1)
- ○ 25 - 34 (2)
- ○ 35 - 44 (3)
- ○ 45 - 54 (4)
- ○ 55 - 64 (5)
- ○ 65 + (6)

Q3 With which site do you feel 'connected to' or 'invested in'?

- ○ South Australian Maritime Museum (1)
- ○ Clipper Ship City of Adelaide (2)
- ○ Garden Island Shipwreck Graveyard (3)
- ○ Port Willunga (4)
- ○ Rapid Bay (5)
- ○ Ex-HMAS Hobart (6)

Q4 In general, how important do you consider the following things when travelling or making travel plans?

	Not at all important (1)	Slightly important (2)	Moderately important (3)	Very important (4)	Extremely important (5)
Friends and family (1)	○	○	○	○	○
Heritage (museums, trails, experiences, etc.) (2)	○	○	○	○	○
Entertainment (movies, theatre, sport, etc.) (3)	○	○	○	○	○
Shopping (shops, malls, markets, etc.) (4)	○	○	○	○	○
Hospitality (hotels, bars, restaurants, cafes, etc.) (5)	○	○	○	○	○
Nature (parks, beaches, wildlife, etc.) (6)	○	○	○	○	○

End of Block: Identity Questions

Start of Block: Connection Exploration

Q5 Why do you feel this way/why do you feel connected to this place?

_____

_____

Q6 How long have you felt this way? (approximately)

Q7 What does this site mean to you?

Q8 What stories and parts of history (both personal and in general) do you think best represent the site?

Q9 What do you know about the environment at this site?

_____

_____

_____

_____

_____

End of Block: Connection Exploration

Start of Block: Economic Perceptions

Q10 What do you think attracts people to this site?

_____

_____

_____

_____

_____

Q11 How much money do you think the average person spends to visit this site? Give your best estimate in Australian Dollars.

☐ Accommodation (hotels, motels, airbnbs, etc.) (1)

_____

☐ Travel (bus fare, fuel, parking, etc.; not flights) (2)

_____

☐ Food and drink (hotels, restaurants, shops, etc.) (3)

_____

☐ Activities (equipment hire, tours, entry fees, etc.) (4)

_____

☐ Other (clothing, merchandise, souvenirs, etc.) (5)

_____

Q12 In your opinion what is more important, tourists enjoying the site and getting a meaningful experience or spending money?

○ Tourists/visitors enjoying the site and getting a meaningful experience (1)

○ Spending money to visit the site (2)

○ Both are equally important (3)

Q13 Do you think this site should be promoted to get more visitors? If yes, in what ways would you like to see it promoted

_____

_____

Q14 How often do you visit this site? (approximately - per week/per month/ per year)

Q15 What would you like to see happen to this site to help protect its unique heritage and environment for future generations?

End of Block: Economic Perceptions

Start of Block: Place Attachment

Q16 How strongly do you agree or disagree with the following statements this location?

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
For the recreational activities I enjoy most, the settings offered here are the best (1)	○	○	○	○	○
For the type of recreation activities I enjoy, I would not substitute this place for any other (2)	○	○	○	○	○
I enjoy visiting this location more than any other historical place (3)	○	○	○	○	○
I identify strongly with this place (4)	○	○	○	○	○
I feel this place is part of who I am (5)	○	○	○	○	○
Visiting this place says a lot about who I am (6)	○	○	○	○	○
I am connected to this place (7)	○	○	○	○	○

I feel a strong sense of belonging to this place (8)	○	○	○	○	○
This location means a lot to me (9)	○	○	○	○	○
Many of my friends and family visit this place (10)	○	○	○	○	○
The relationships developed by visiting this location strongly connect me to this place (11)	○	○	○	○	○
This place allows me to connect with and get close to my friends and family (12)	○	○	○	○	○

Q17 How likely would you be to engage with the following (hypothetical) activities at this location?

	Extremely unlikely (1)	Somewhat unlikely (2)	Neither likely nor unlikely (3)	Somewhat likely (4)	Extremely likely (5)
Signing petitions in support of preserving the local heritage and environment (1)	○	○	○	○	○
Learning about the local history (2)	○	○	○	○	○
Telling my friends/family not to feed the wildlife (3)	○	○	○	○	○
Telling my friends/family to dispose of waste appropriately (4)	○	○	○	○	○
Volunteering my time to help with local projects (5)	○	○	○	○	○
Participating in local community meetings (6)	○	○	○	○	○
Writing letters in support of this place (7)	○	○	○	○	○

Recommending visitation to family/friends (8)	○	○	○	○	○

Q18 Do you have any other comments regarding what this place means to you?

_____

_____

_____

_____

_____

Q19 I have reviewed the responses:

- ○ I am happy with my responses (1)
- ○ I am not happy with my responses (2)

End of Block: Place Attachment

Appendix B – Facebook Advertisement Details

Social media platforms were used for the recruitment of respondents to each of the selected sites. This was to test the efficacy with which social media could be used to target specific audiences for similar types of research in the future, Ultimately, Facebook, and Twitter were considered the principal social media outlets with unique research related pages created for each site (Figure B-1 and B-2).

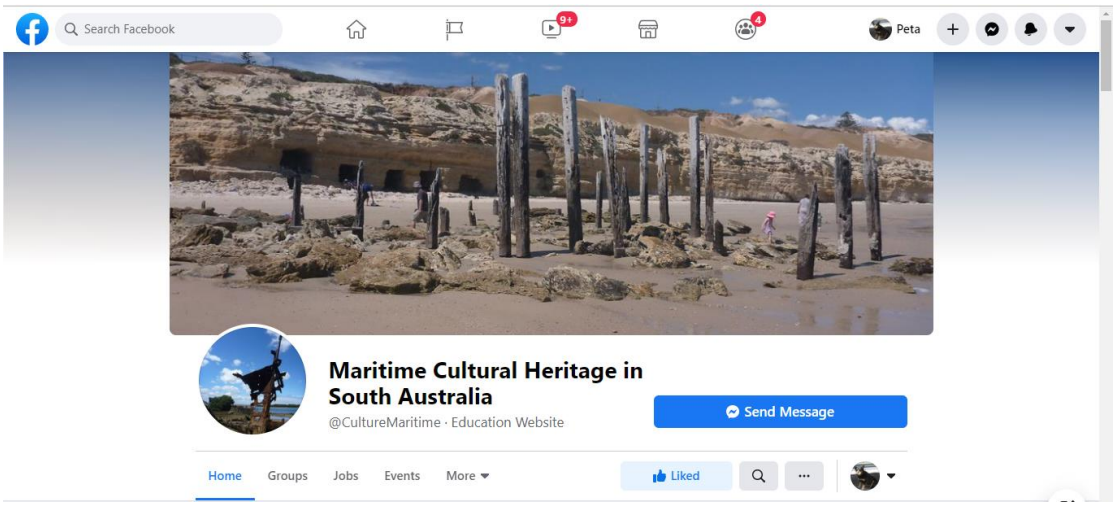

Figure B-1 The Facebook page set up for this research.

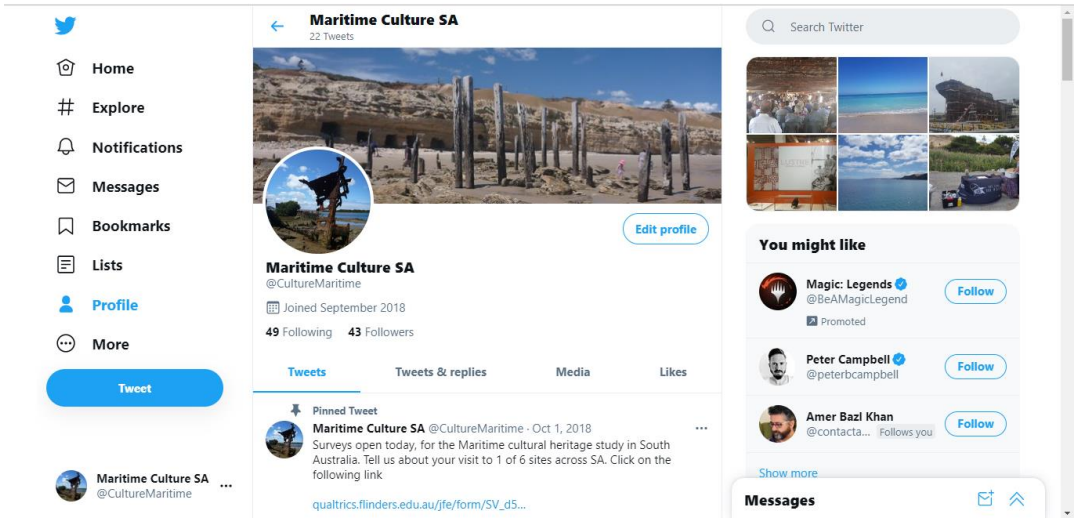

Figure B-2 The Twitter page set up for this research.

These two pages were used to promote the research, share links to the online survey, and engage with the online community by sharing photos and images of the sites – principally taken while undertaking on site surveys. In addition to sharing links through casual posts Facebook was also used to boost posts as paid advertisements. These adds were created with the intention of encouraging visitors to the site to respond to the surveys and were shown on both Facebook and Instagram. Overall, $500 was spent on the six advertisements from the

14th of December 2018 to the 17th of February 2019 and below is a breakdown of the adds created for each site detailing the targeted audiences, the costs, and results from the paid adds.

South Australian Maritime Museum

The South Australian Maritime Museum add (Figure B-3) had a targeted audience profile with a potential audience reach of 440,000. It covered people in a 45+ mile radius from Adelaide CBD who were of either gender and aged between 18 and 65+. Additionally, these adds were target at people who matched with the following interests: 19th century, archaeology, cultural heritage, family history society, genealogy, heritage, history, local history, maritime history, museum, Port Adelaide, sailing, and boats. This add used a total of $64.56 to reach 2,881 people and receive 408 total engagements (Figure B-4 and Table B-1, B-2). Furthermore, this add was shown to 179 men (44%) and 225 women (55%) across all age ranges (Figure B-5) and was principally placed on Facebook but received more results from Instagram (Figure B-6).

Figure B-3 The Facebook and Instagram add for the South Australian Maritime Museum.

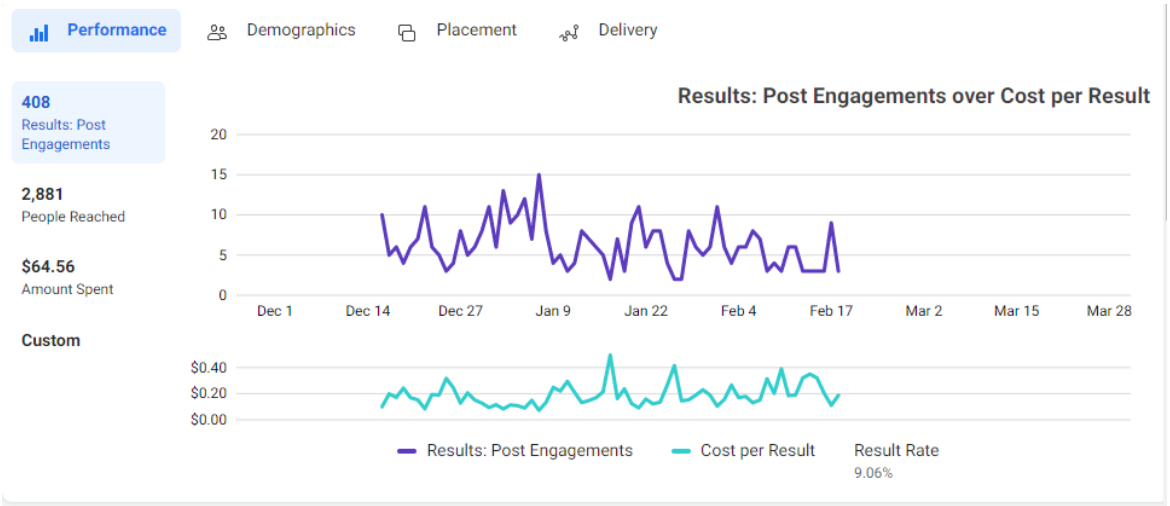

Figure B-4 Post engagements over cost per result from Facebook add analytics.

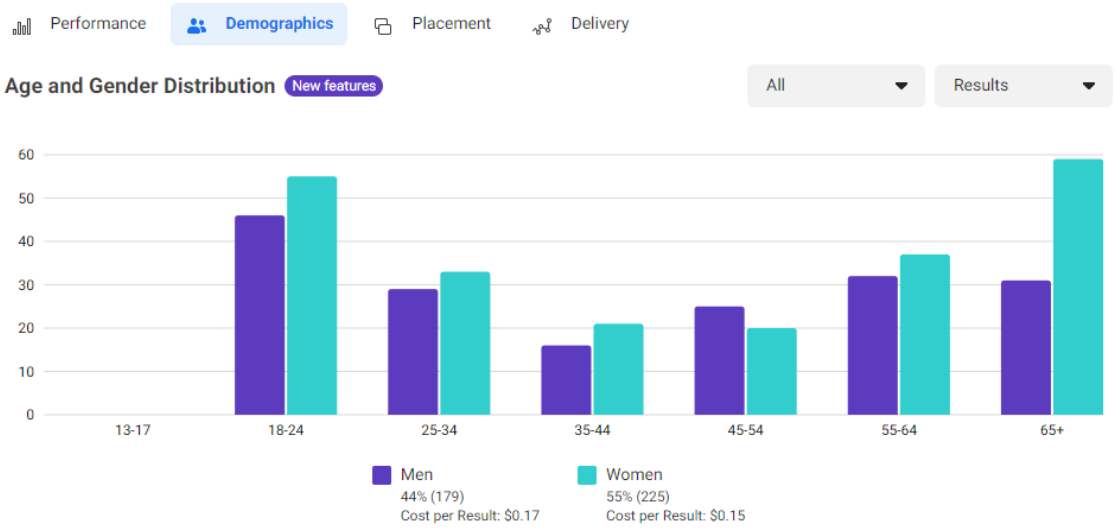

Figure B-5 Age and gender distribution of the South Australian Maritime Museum add.

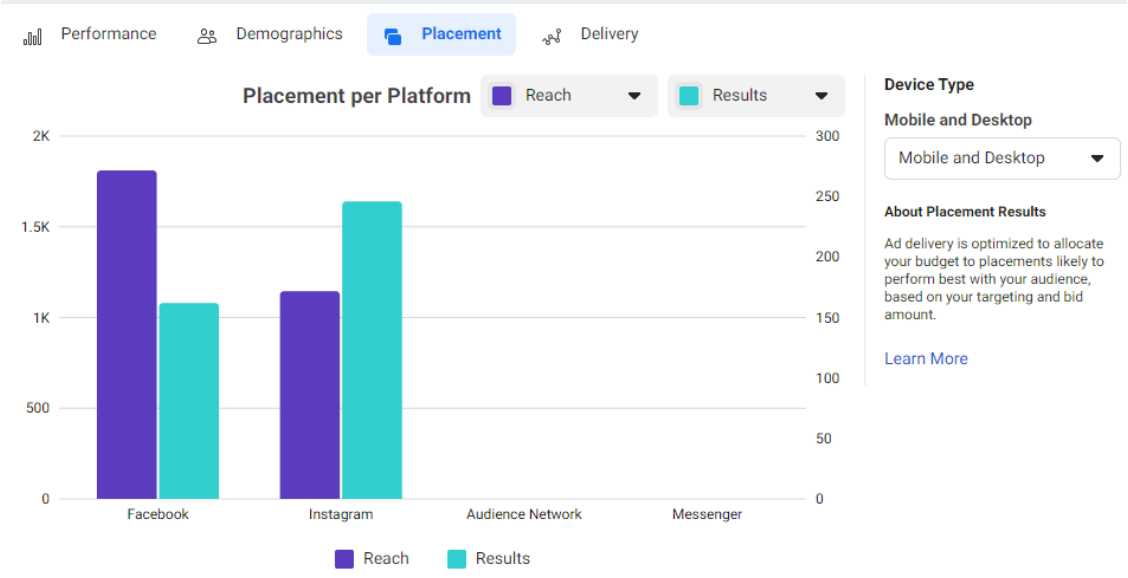

Figure B-6 Facebook vs Instagram reach and result for the South Australian Maritime Museum add.

City of Adelaide Clipper Ship

The Clipper Ship *City of Adelaide* advertisement (Figure B-7) has a targeted audience profile with a potential audience reach of 370,000. It covered people in a 44+ mile radius from Adelaide CBD who were of either gender and aged between 18 and 65+. Additionally, these adds were targeted at people who matched with the following interests: 19th century, genealogy, history, immigration to Australia, Port Adelaide, sailing, and ships. This add used a total of $102.10 to reach 7,969 people and receive 1,138 total engagements (Figure B-8 and Table B-1, B-2). Furthermore, this add was shown to 731 men (64%) and 393 women (35%) across all age ranges (Figure B-9) and was principally placed on Instagram, where is received the most results (Figure B-10).

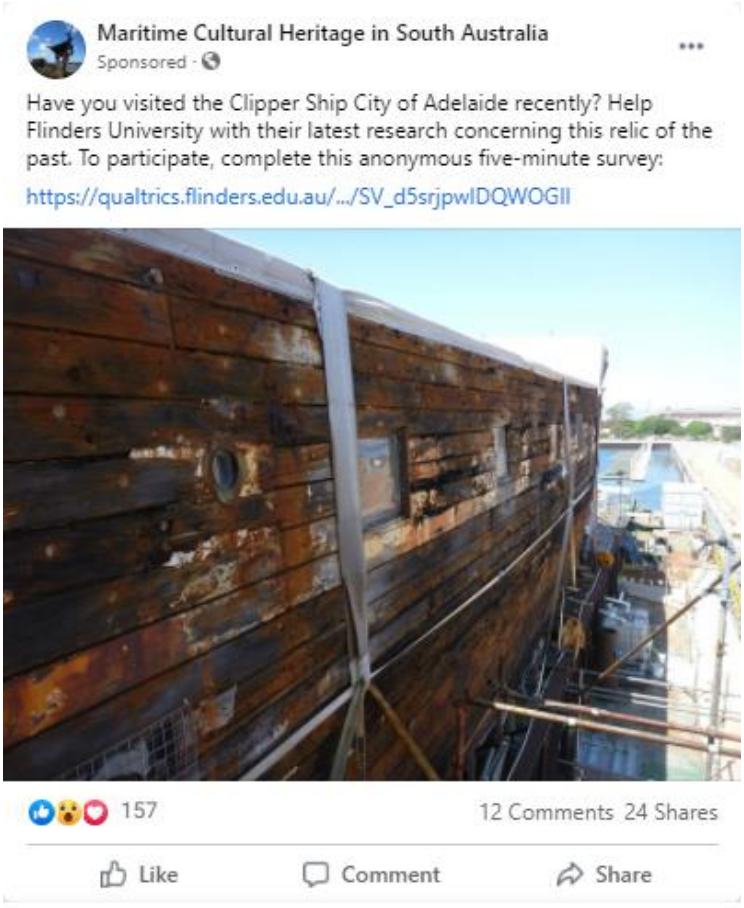

Figure B-7 The Facebook and Instagram add for the Clipper Ship City of Adelaide.

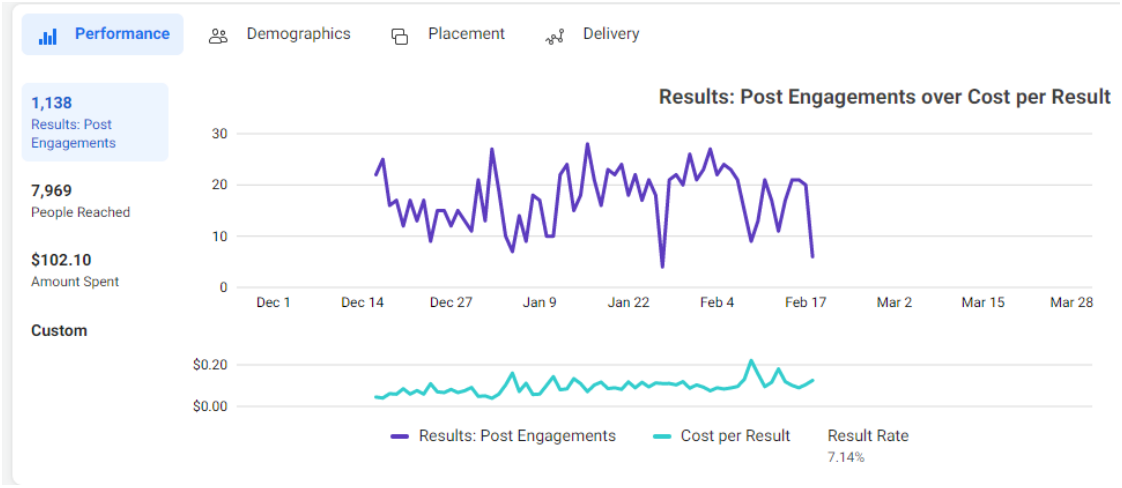

Figure B-8 Post engagements over cost per result from Facebook add analytics.

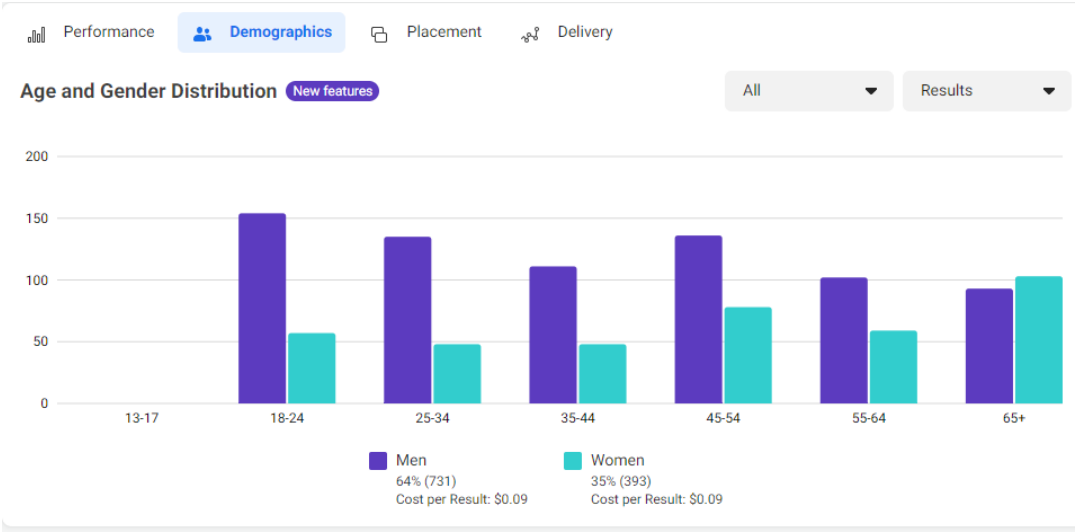

Figure B-9 Age and gender distribution of the Clipper Ship City of Adelaide add.

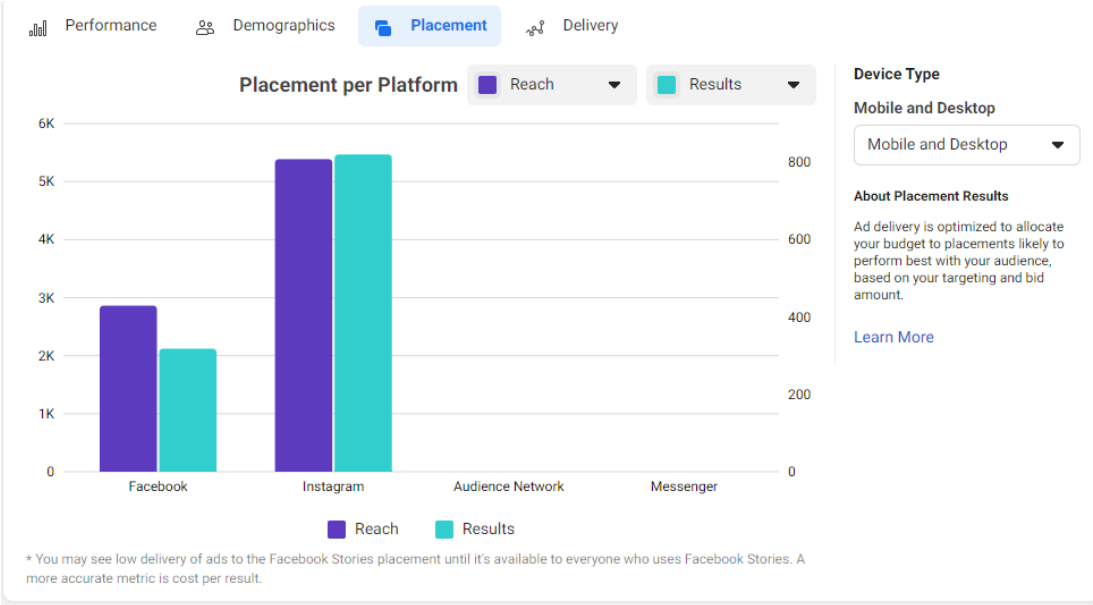

Figure B-10 Facebook vs Instagram reach and result for the Clipper Ship City of Adelaide add.

Garden Island Shipwreck Graveyard

The Garden Island Shipwreck Graveyard advertisement (Figure B-11) had a targeted audience profile with a potential audience reach of 770,000. It covered people in a 45+ mile radius from Adelaide CBD who were of either gender and aged between 18 and 65+. Additionally, these adds were targeted at people who matched with the following interests: boat racing, canoe, dolphin, jet ski, kayak, motorboat, nature photography, picnic, Scouts Australia, shipwreck, travel photography, nature, boats, and fishing. This add used a total of $102.22 to reach 4,948 people and received 1,079 total engagements (Figure B-12 and Table B-1, B-2). Furthermore, this add was shown to 580 men (54%) and 491 women (46%) across all age ranges (Figure B-13). This add was principally shown on Instagram (Figure B-14).

Figure B-11 The Facebook and Instagram add for the Garden Island Shipwreck Graveyard.

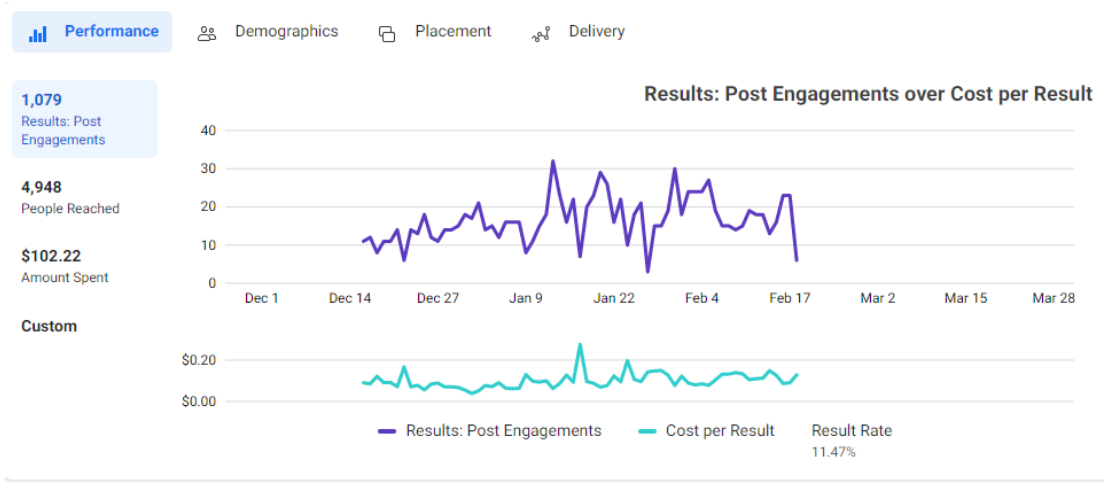

Figure B-12 Post engagements over cost per result from Facebook add analytics.

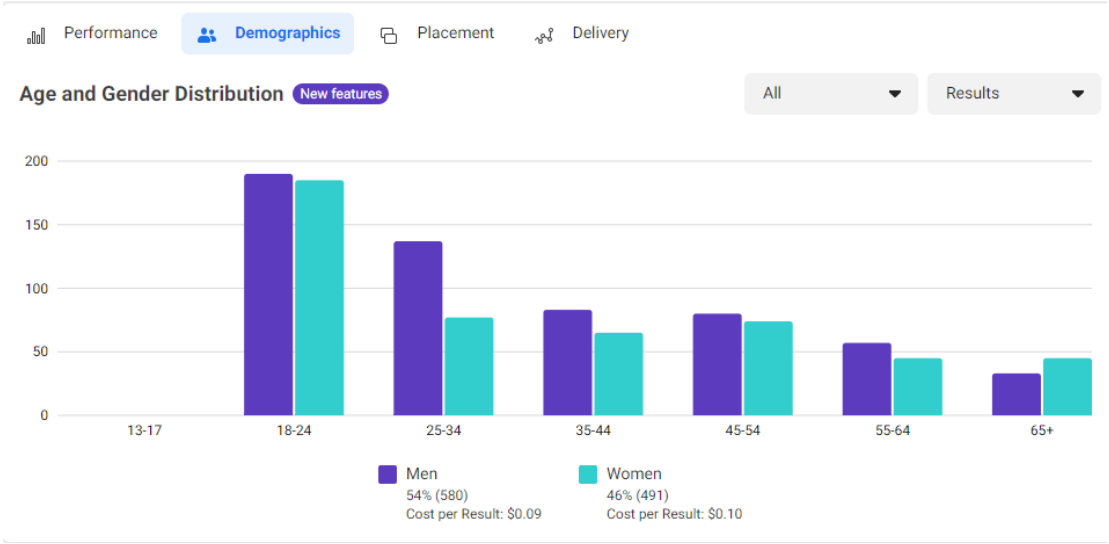

Figure B-13 Age and gender distribution of the Garden Island Shipwreck Graveyard add.

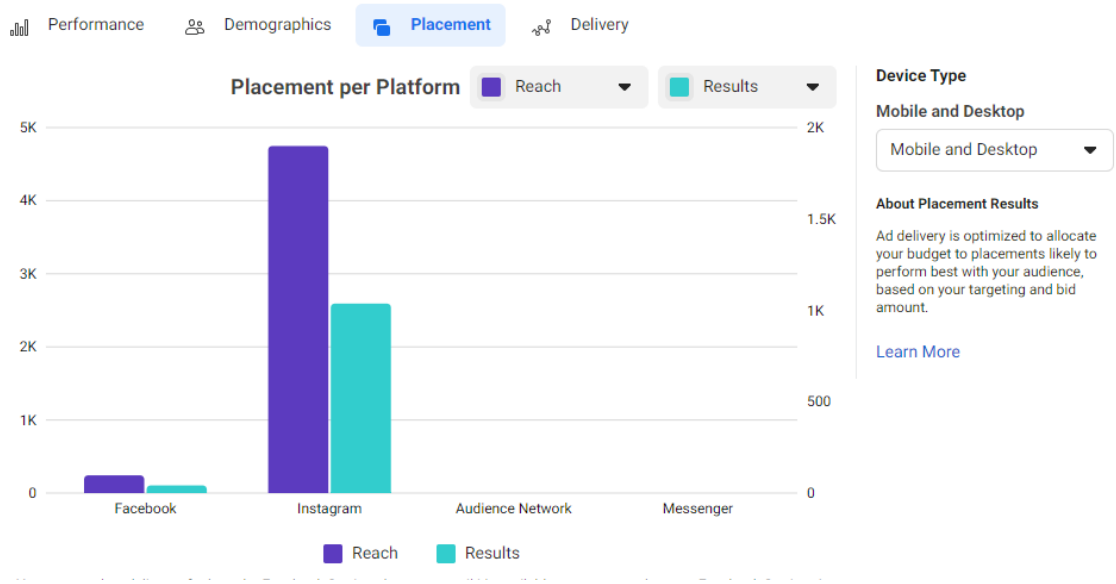

Figure B-14 Facebook vs Instagram reach and result for the Garden Island Shipwreck Graveyard add.

Port Willunga

The Port Willunga advertisement (Figure B-15) it had a targeted audience profile with a potential audience reach of 700,000 covering people in a 25+ mile radius from Adelaide CBD and a 25+ mile radius from Port Willunga who were of either gender and aged between 18 and 65+. Additionally, these adds were targeted at people who matched with the following interests: beach, campfire, diving, dog walking, natural environment, shipwreck, snorkelling, surf lifesaving, walking, nature, boats, fishing, and surfing. This add used a total of $64.41 to reach 7,034 people to receive 1,322 total engagements (Figure B-16 and Table B-1, B-2). Furthermore, this add was shown to 487 men (37%) and 824 women (62%) across all age ranges (Figure B-17) and was principally shown on Instagram (Figure B-18).

Figure B-15 The Facebook and Instagram add for Port Willunga.

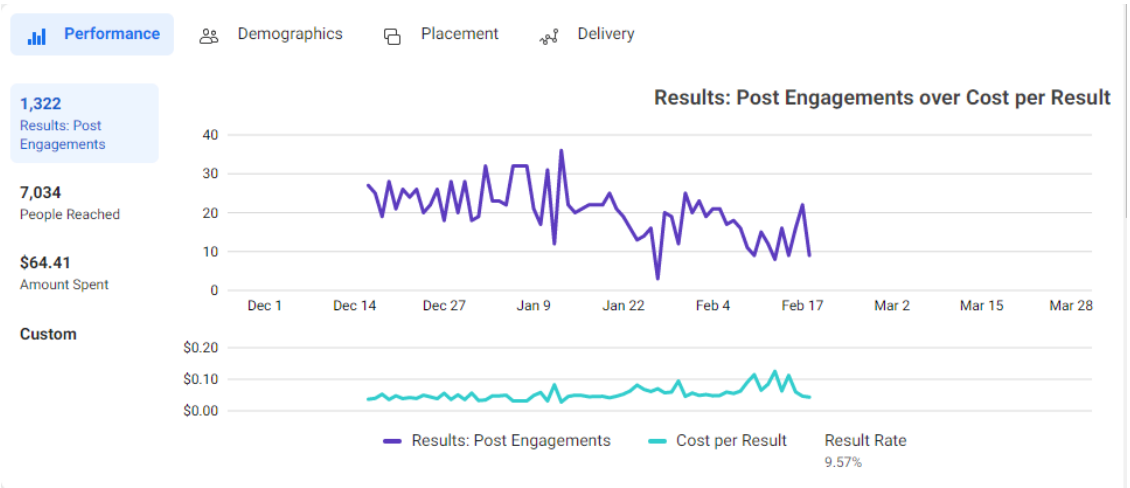

Figure B-16 Post engagements over cost per result from Facebook add analytics.

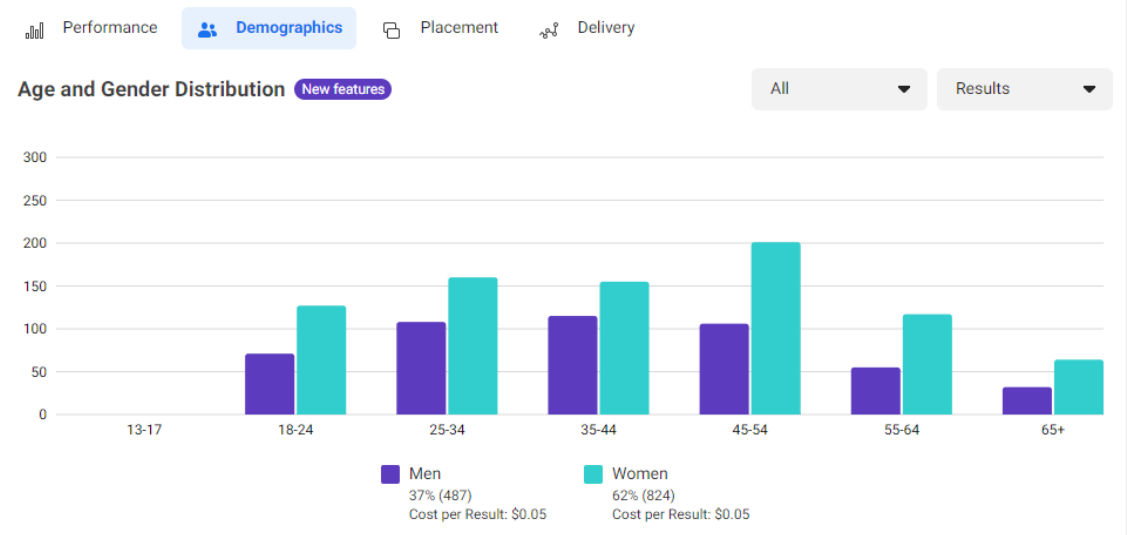

Figure B-17 Age and gender distribution of the Port Willunga add.

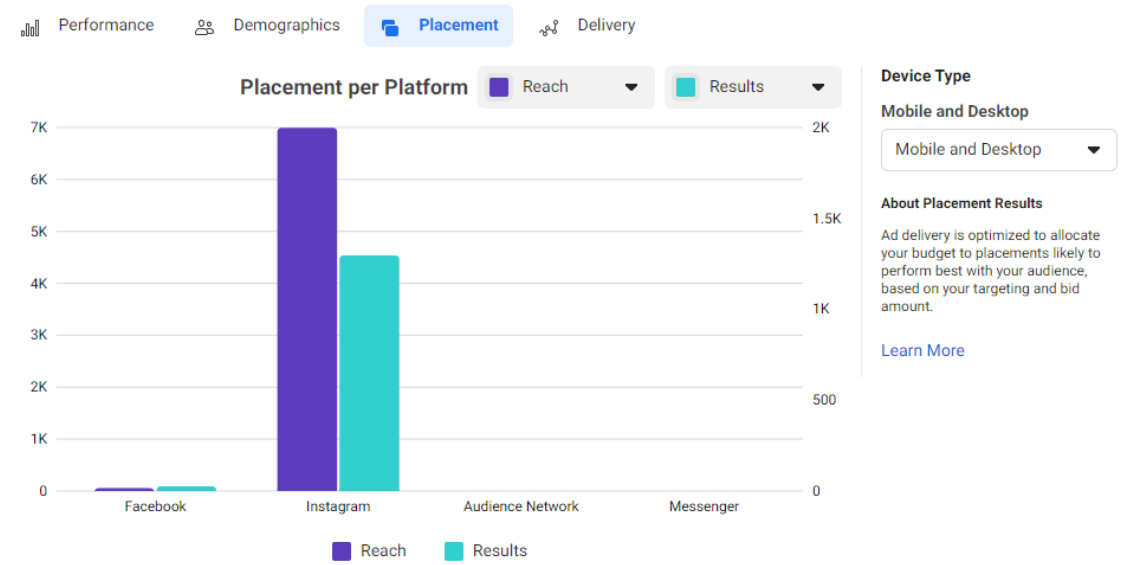

Figure B-18 Facebook vs Instagram reach and result for the Port Willunga add.

Ex-HMAS Hobart

The ex-HMAS Hobart advertisement (Figure B-19) had a target audience profile with a potential audience reach of 390,000 it covered people in a 25+ mile radius from Adelaide CBD and a 25+ mile radius from Yankalilla who were of either gender and were aged between 18 to 65+. Additionally, these adds were targeted at people who matched with the following interests: diving, recreational diving, scuba, shipwreck, travel photography, underwater diving, underwater photography, wildlife photography, and fishing. This add used a total of $102.31 to reach 4,253 people to receive 855 total engagements (Figure B-20 and Table B-1, B-2). Furthermore, this add was shown to 554 men (65%) and 295 women (35%) across all age ranges (Figure B-21) and was principally placed on Instagram (Figure B-22).

Figure B-19 The Facebook and Instagram add for ex-HMAS Hobart.

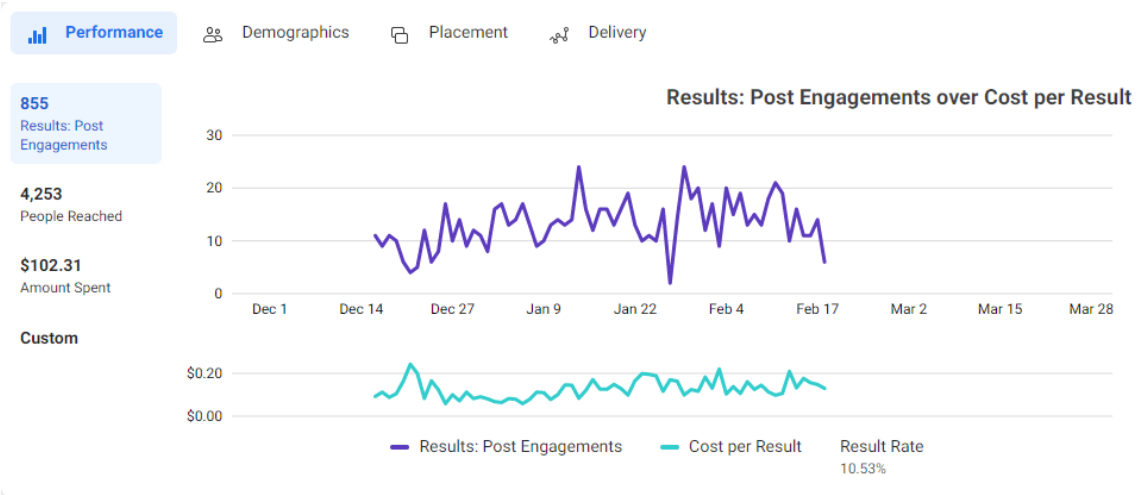

Figure B-20 Post engagements over cost per result from Facebook add analytics.

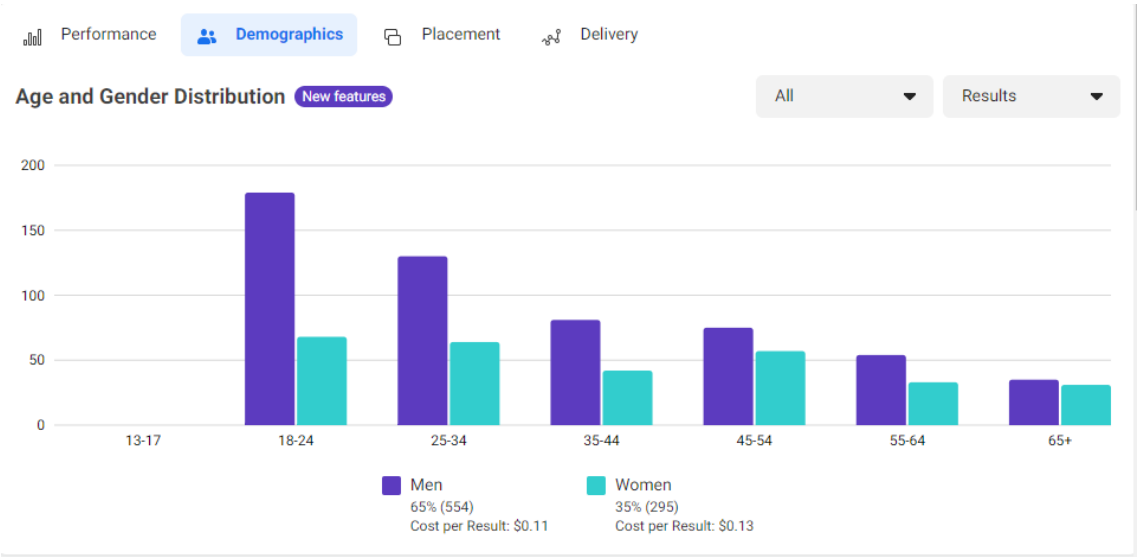

Figure B-21 Age and gender distribution of the ex-HMAS Hobart add.

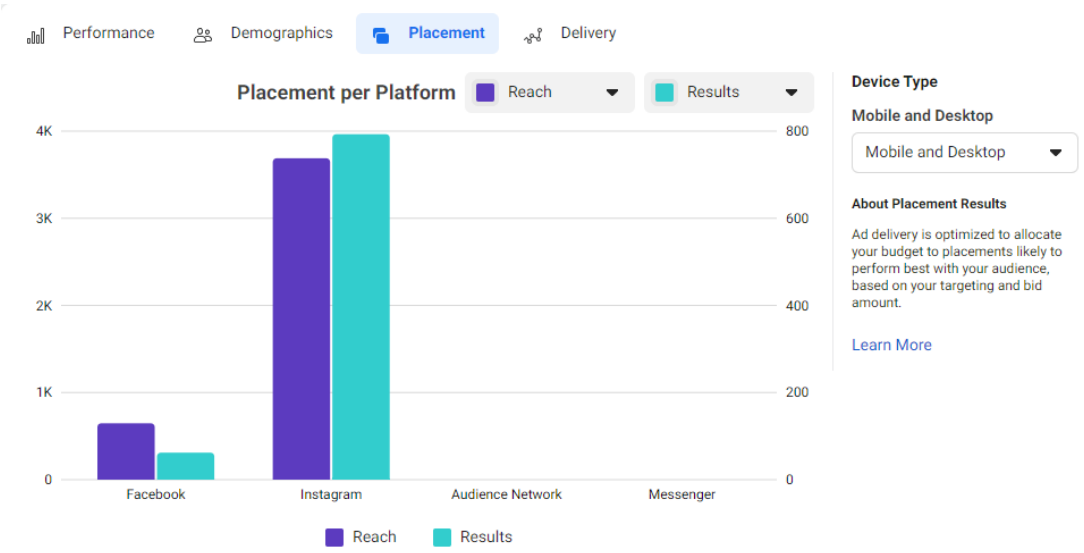

Figure B-22 Facebook vs Instagram reach and result for the ex-HMAS Hobart add.

Rapid Bay

The Rapid Bay advertisement (Figure B-23) had a target audience profile with a potential audience reach of 630,000. It covered people in a 25+ mile radius from Adelaide CBD and a 20+ mile radius from Yankalilla who were of either gender and aged between 18 to 65+. Additionally, these add were targeted at people who matched with the following interests: beach, diving, kayaking, ocean, outdoors, recreational diving, scuba, diving, snorkelling, stand-up paddle boarding, underwater photography, wildlife, wildlife photography, beaches, camping, and fishing. This add used a total $64.40 to reach 3,076 people and received 665 total engagements (Figure B-24 and Table B-1, B-2). Furthermore, this add was shown to 302 men (45%) and 361 women (54%) across all age ranges (Figure B-25) and was principally placed on Instagram (Figure B-26).

Figure B-23 The Facebook and Instagram add for the Rapid Bay.

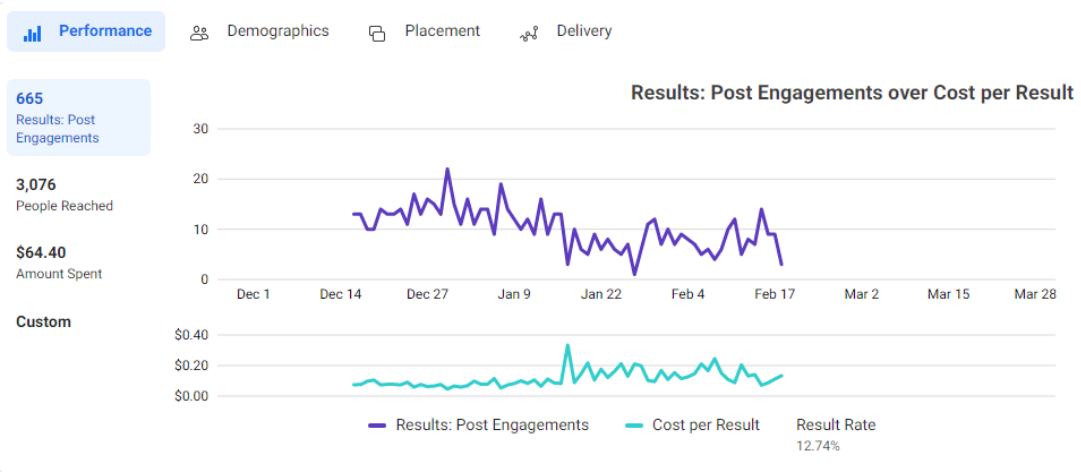

Figure B-24 Post engagements over cost per result from Facebook add analytics.

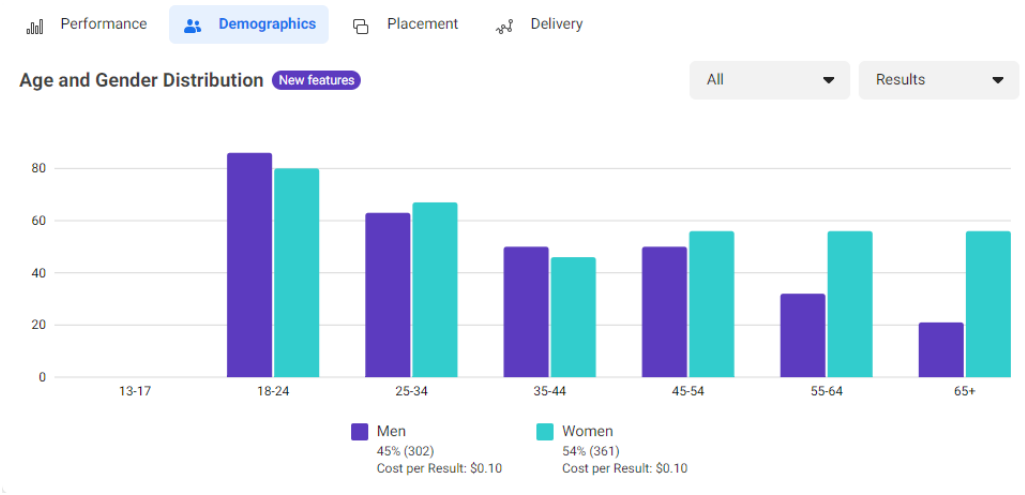

Figure B-25 Age and gender distribution of the Rapid Bay add.

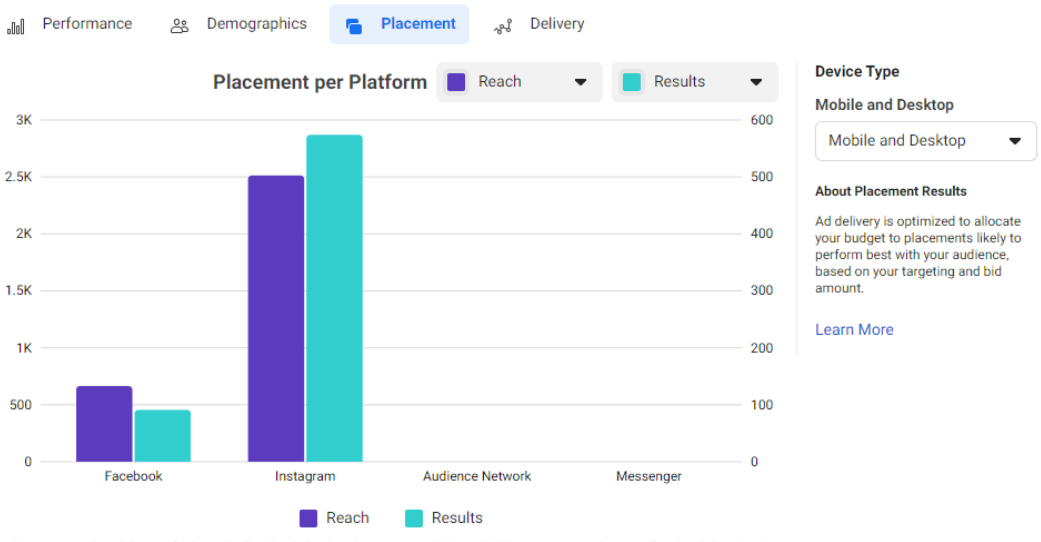

Figure B-26 Facebook vs Instagram reach and result for the Rapid Bay add.

Table B-1 Statistics on the reach of the Facebook paid advertisements.

Advertisement	Budget	Impressions	Reach	Frequency	Result	Cost per result	Cost per 1000 Impressions	Cost per 1000 People Peached	Total amount spent
Clipper Ship City of Adelaide	$2.00	15,929	7,969	2.00	1,138	$0.09	$6.41	$12.81	$102.10
Garden Island Shipwreck Graveyard	$2.00	9,404	4,948	1.90	1079	$0.09	$10.87	$20.66	$102.22
Ex-HMAS Hobart	$2.00	8,121	4,253	1.91	855	$0.12	$12.60	$24.06	$102.31
South Australian Maritime Museum	$1.00	4,501	2,881	1.56	408	$0.16	$14.34	$22.42	$64.56
Port Willunga	$1.00	13,814	7,034	1.96	1322	$0.05	$4.66	$9.16	$64.41
Rapid Bay	$1.00	5,220	3,076	1.70	665	$0.10	$12.34	$20.94	$64.40
TOTALS		56,989	18,200	3.13	5,467	$0.09	$8.77	$27.47	$500.00

Note:

Budget (cost per day)

Impressions (times post was viewed)

Reach (number of people)

Frequency (time each person saw post)

Results (any kind of post engagement)

Cost per result (per post engagement)

Table B-2 Statistics on the results and effectiveness of the Facebook paid advertisements.

Advertisement	Post Reactions	Total Clicks on Adds	Post Comments	Post Saves	Post Shares	Link Clicks	Cost per Link Click	Total Amount Spent
Clipper Ship City of Adelaide	921	482	16	1	21	118	$0.87	$102.10
Garden Island Shipwreck Graveyard	1,030	71	3	0	8	37	$2.76	$102.22
Ex-HMAS Hobart	792	125	3	1	8	49	$2.09	$102.31
South Australian Maritime Museum	319	214	5	0	15	51	$1.27	$64.56
Port Willunga	1,261	65	4	4	6	42	$1.53	$64.41
Rapid Bay	613	114	4	0	8	30	$2.15	$64.40
TOTALS	4,936	1,071	35	6	66	327	$1.53	$500.00

Appendix C – Social Data, Maps, and Graphs

South Australian Maritime Museum

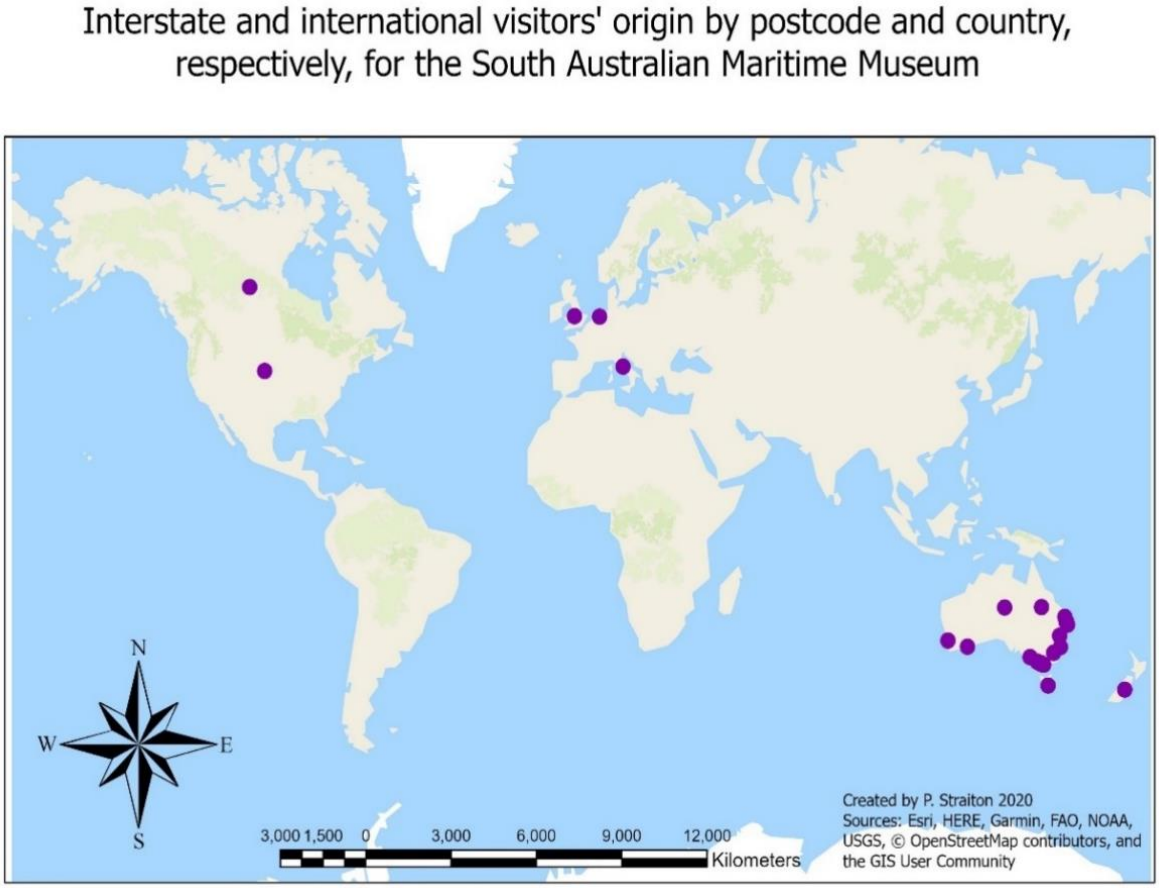

Figure C-1 Origin of interstate and international visitors to the museum, by postcode and country respectively.

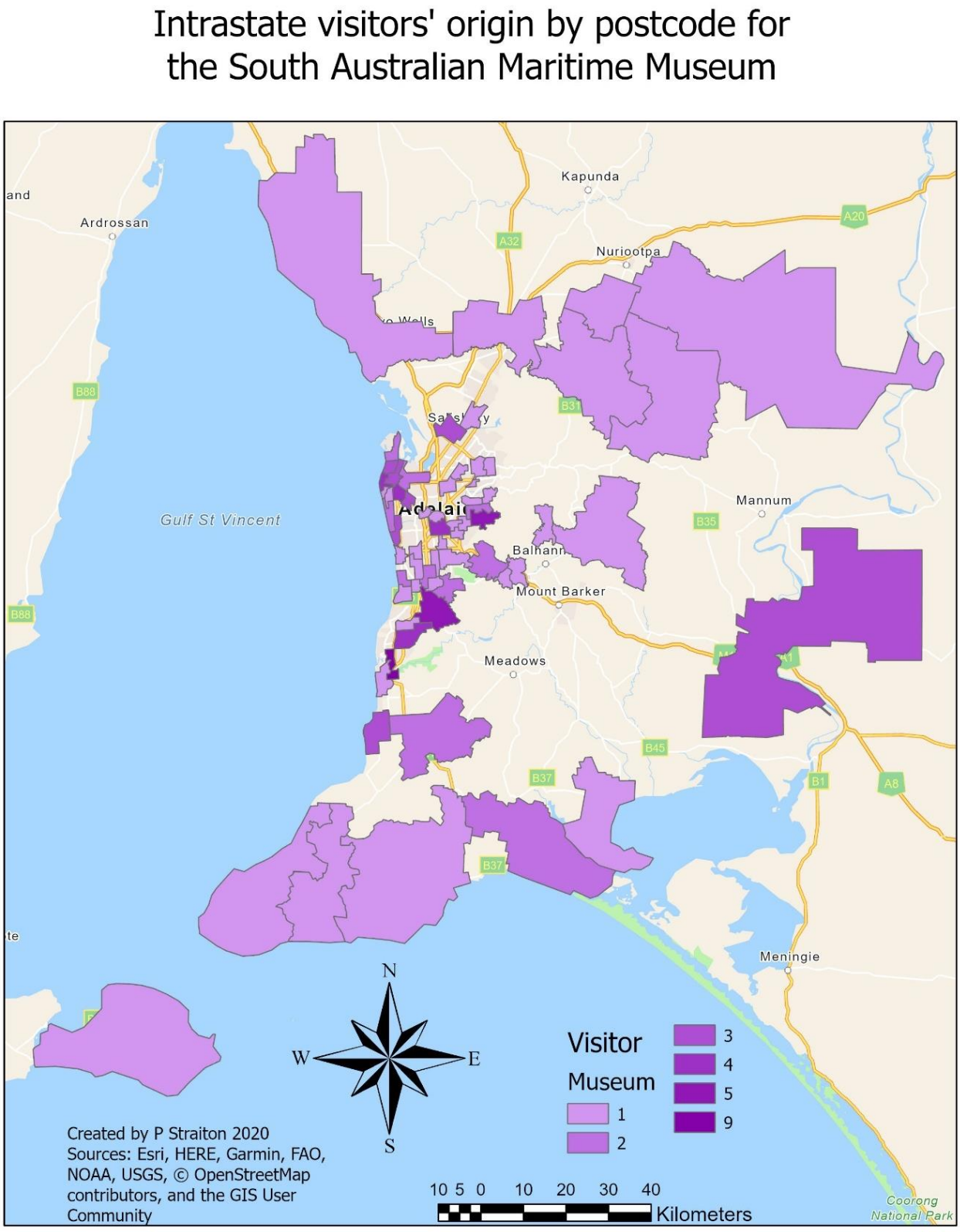

Figure C-2 Large map of the museum's intrastate survey participants' origin by postcode.

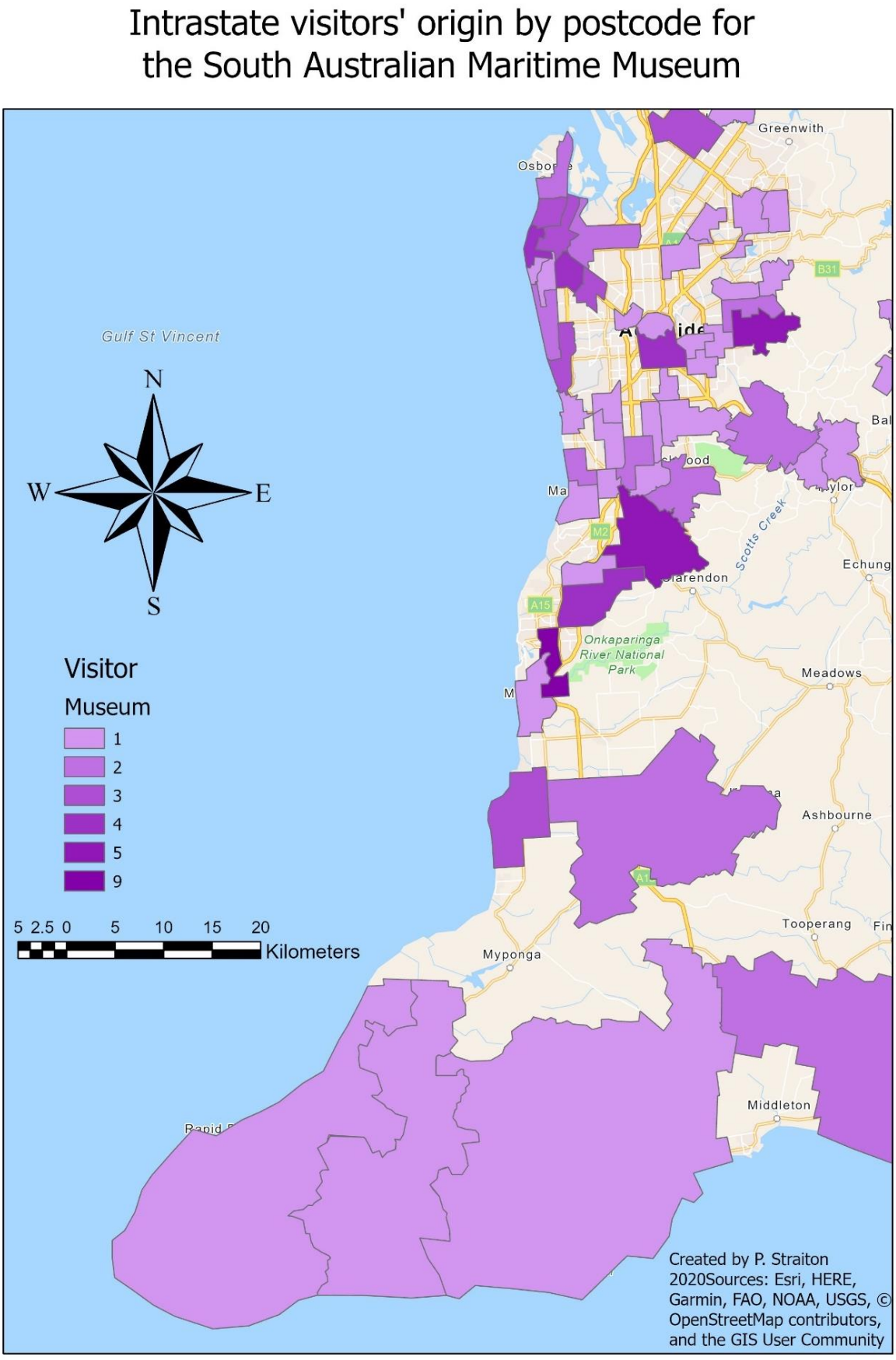

Figure C-3 Adelaide focused map of the museum's intrastate survey participants' origin by postcode.

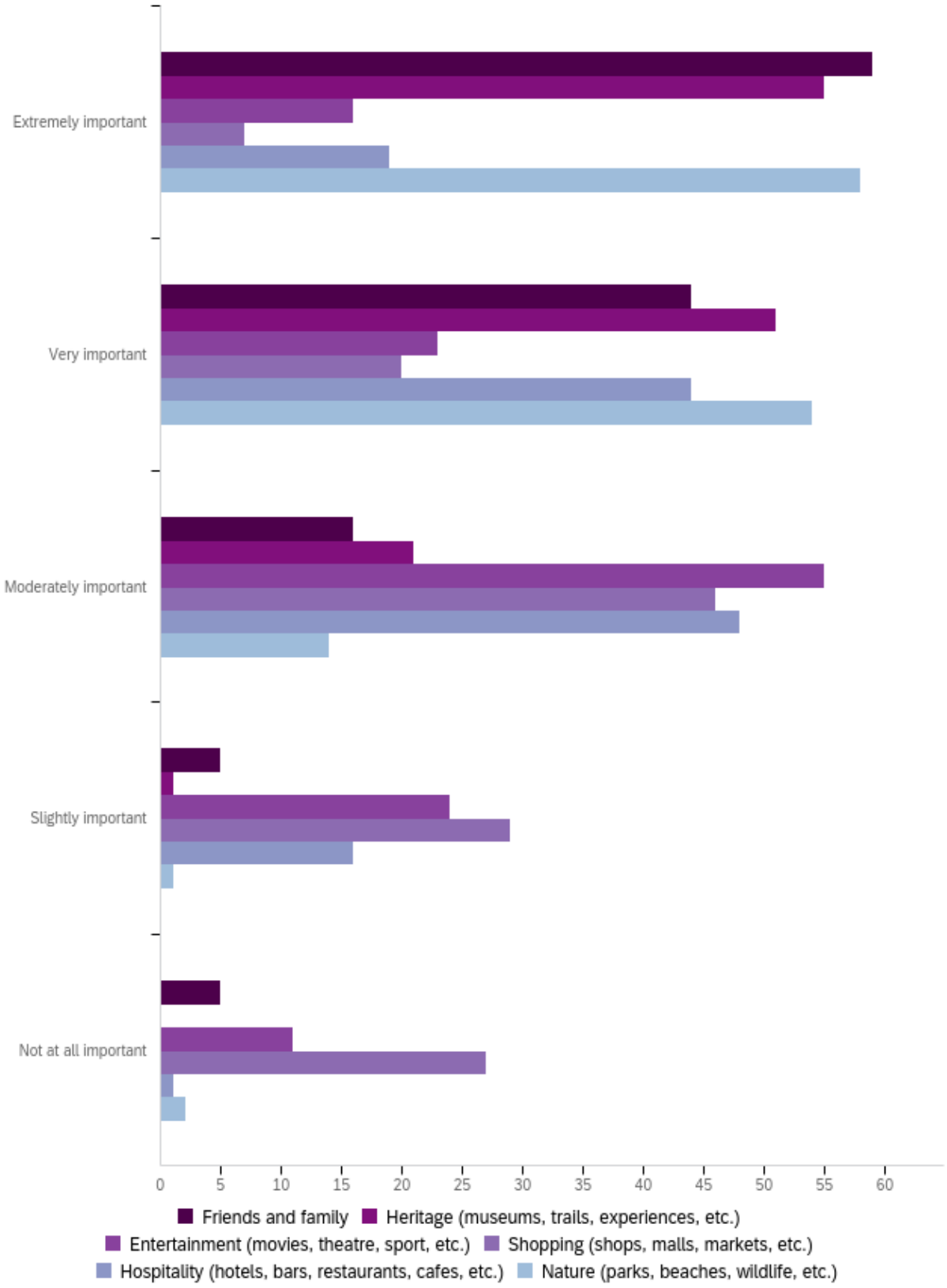

Figure C-4 Graph on factors visitors to the museum feel are important for their travel and holiday plans

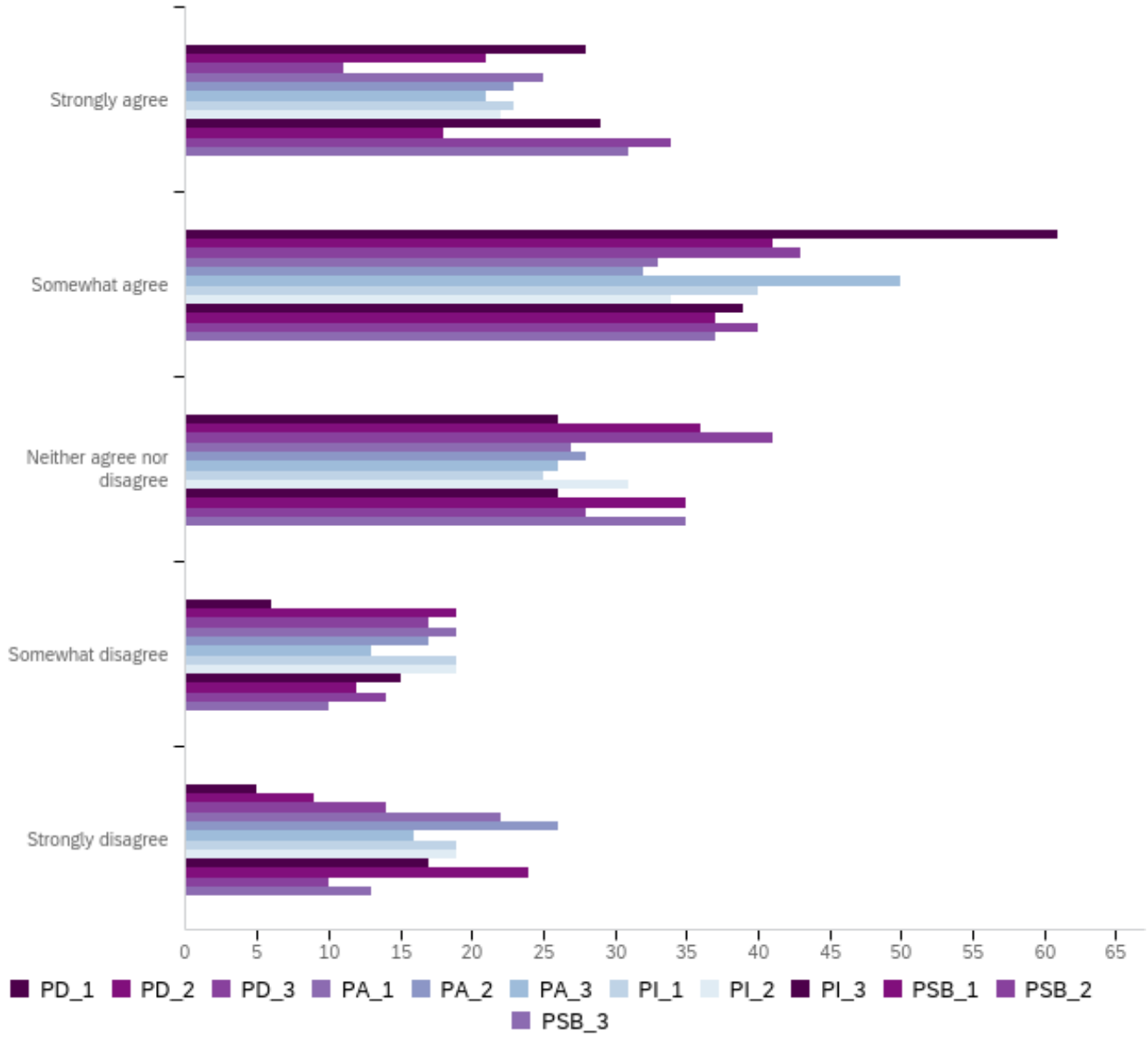

Figure C-5 Graph of which place attachment factors help visitors to the South Australian Maritime Museum experience attachment.

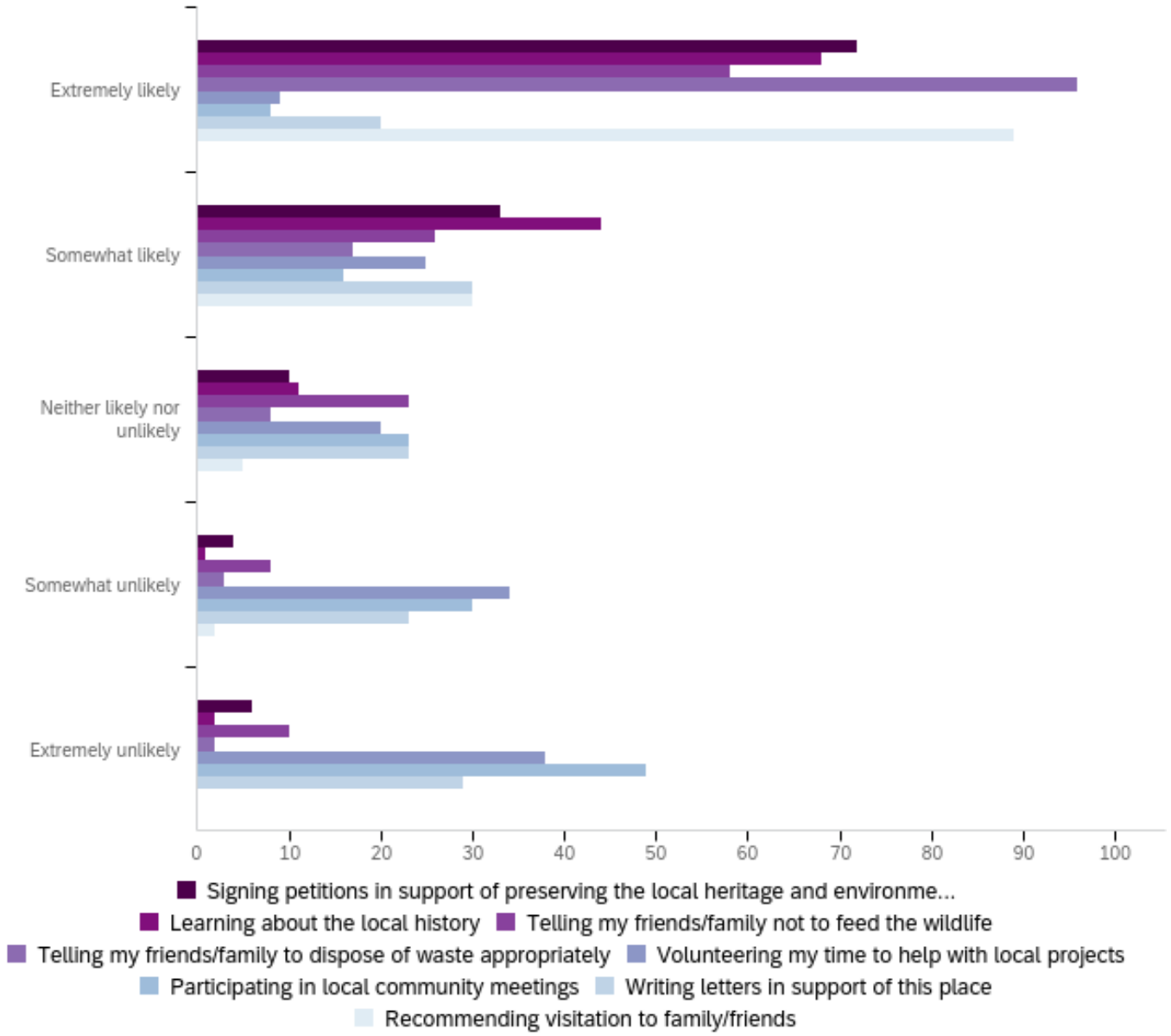

Figure C-6 Graph of which behavioural factors visitors to the South Australian Maritime Museum are likely to undertake.

Garden Island Shipwreck Graveyard

Figure C-7 Origin of interstate and international visitors to the Garden Island Shipwreck Graveyard, by postcode and country, respectively.

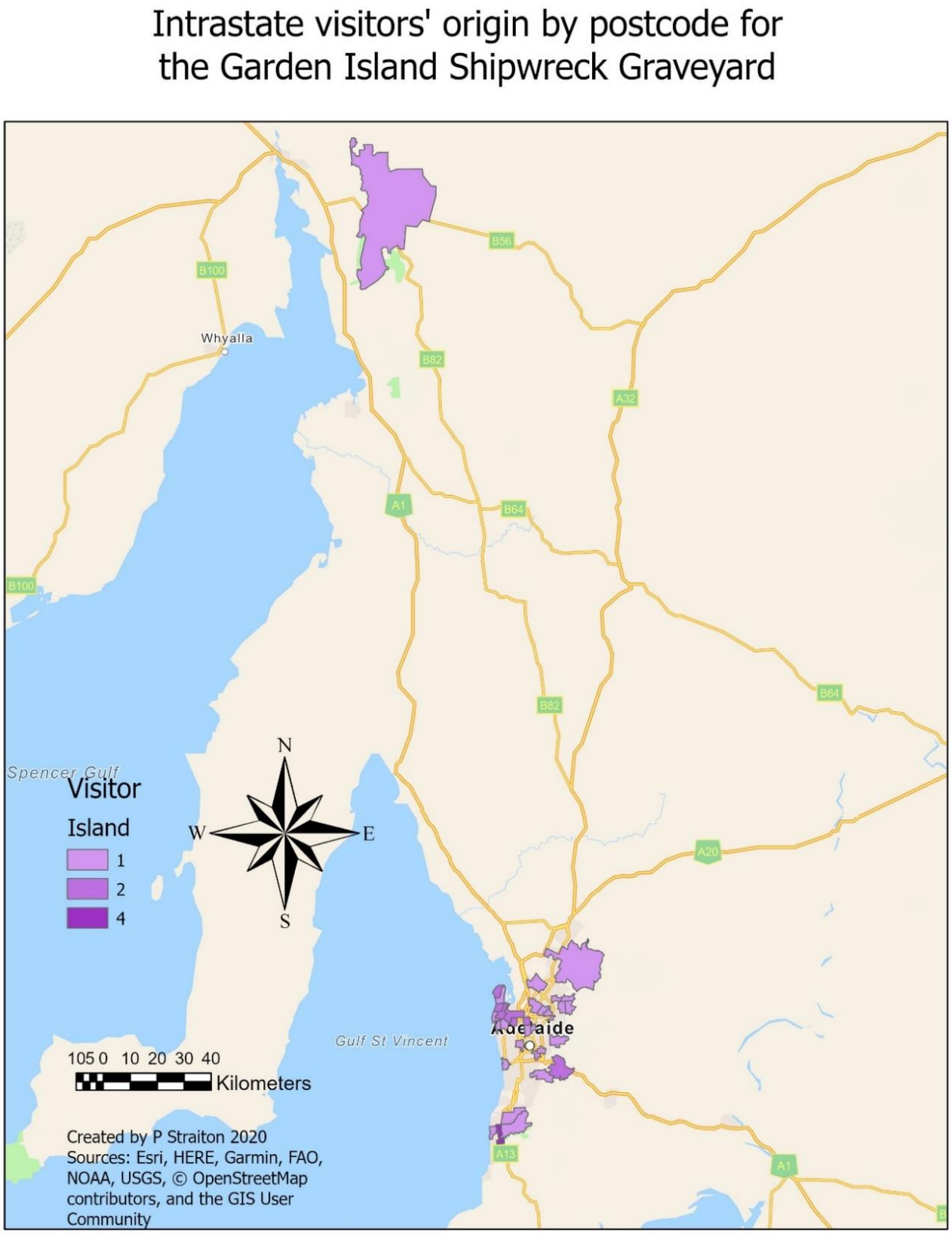

Figure C-8 Large map of Garden Island's intrastate survey participants' origin by postcode.

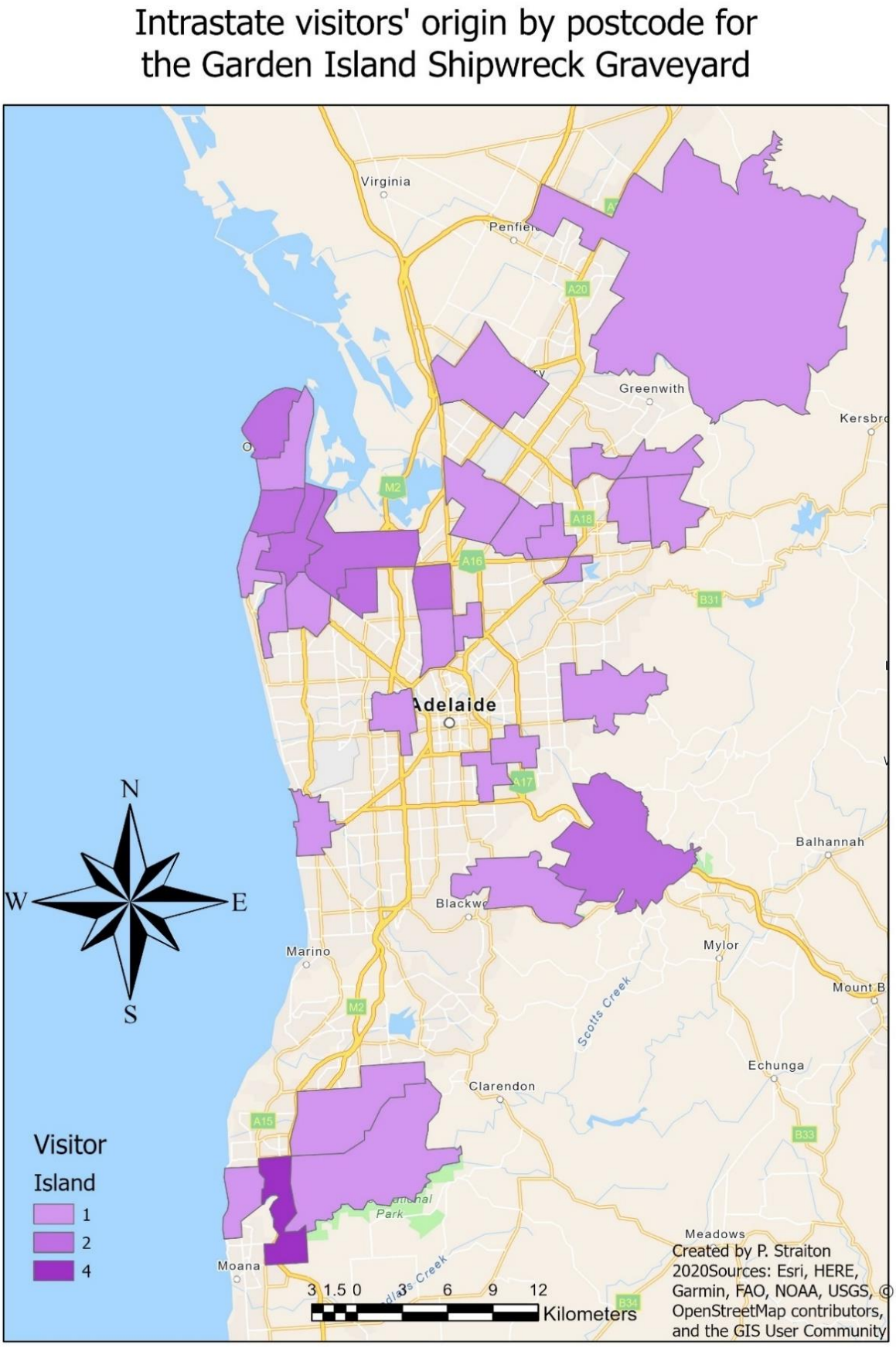

Figure C-9 Adelaide focused map of Garden Island's intrastate survey participants' origin by postcode.

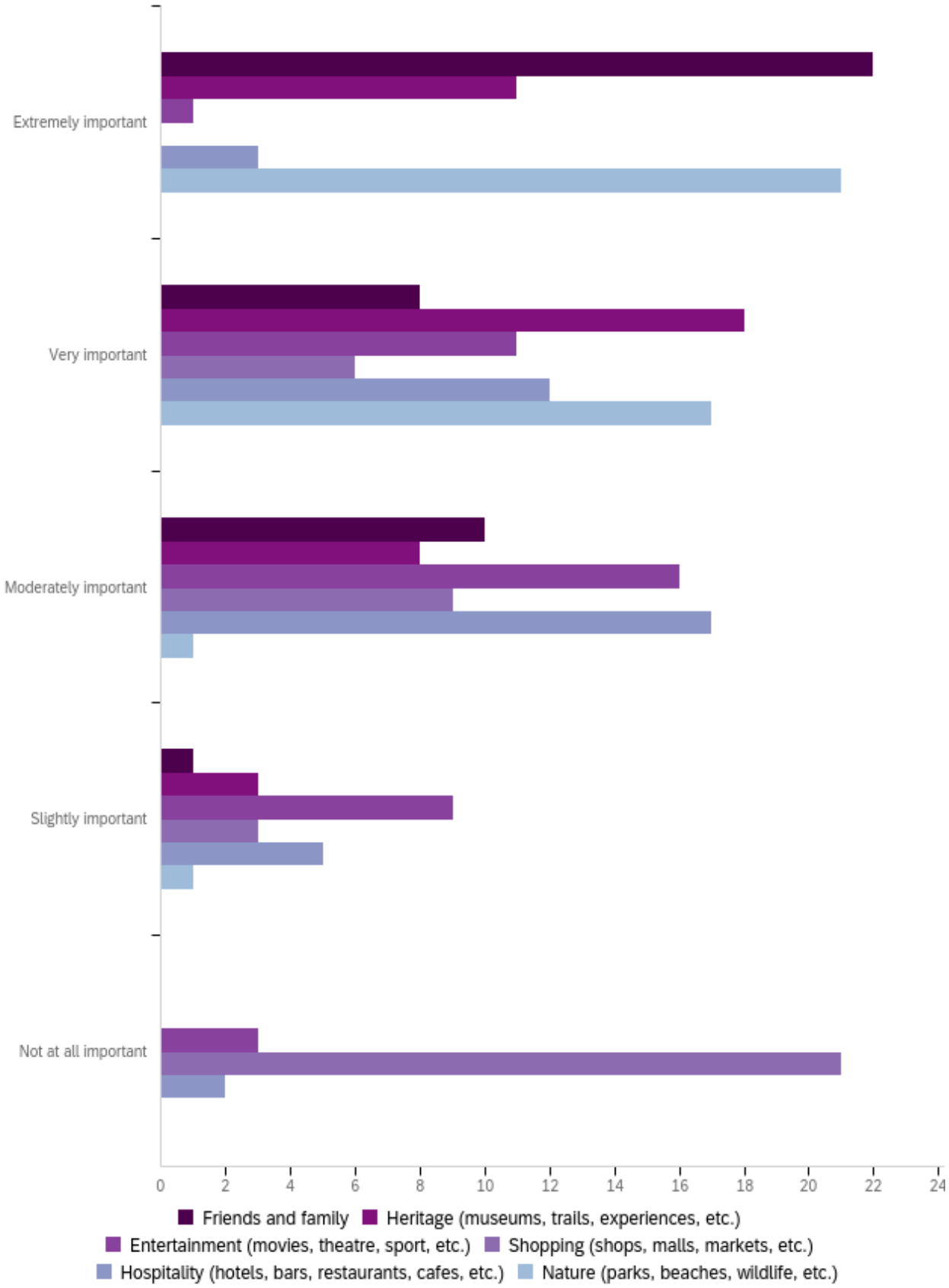

Figure C-10 Graph on factors visitors to the Garden Island Shipwreck Graveyard feel are important for their travel and holiday plans.

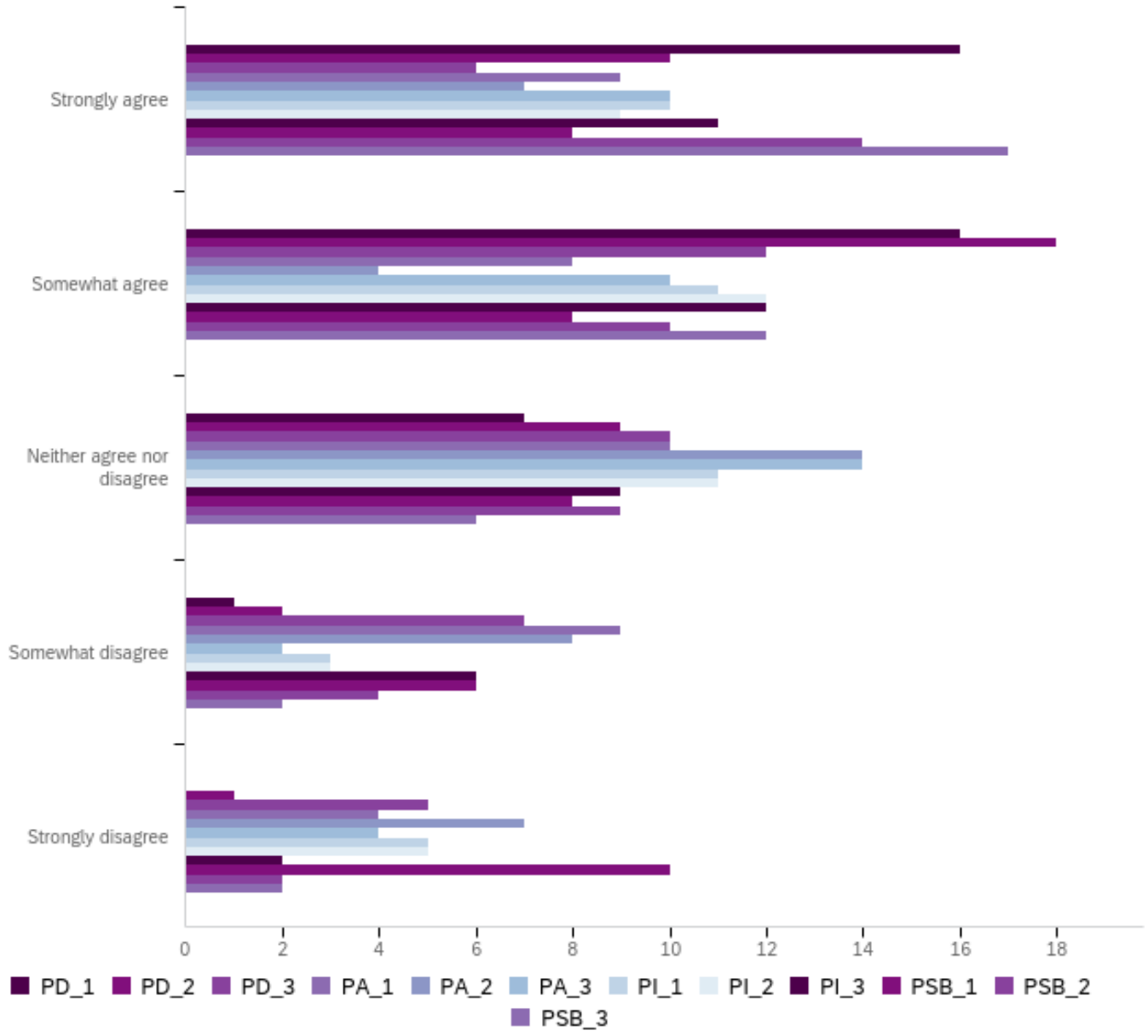

Figure C-11 Graph of which place attachment factors help visitors to the Garden Island Shipwreck Graveyard experience attachment.

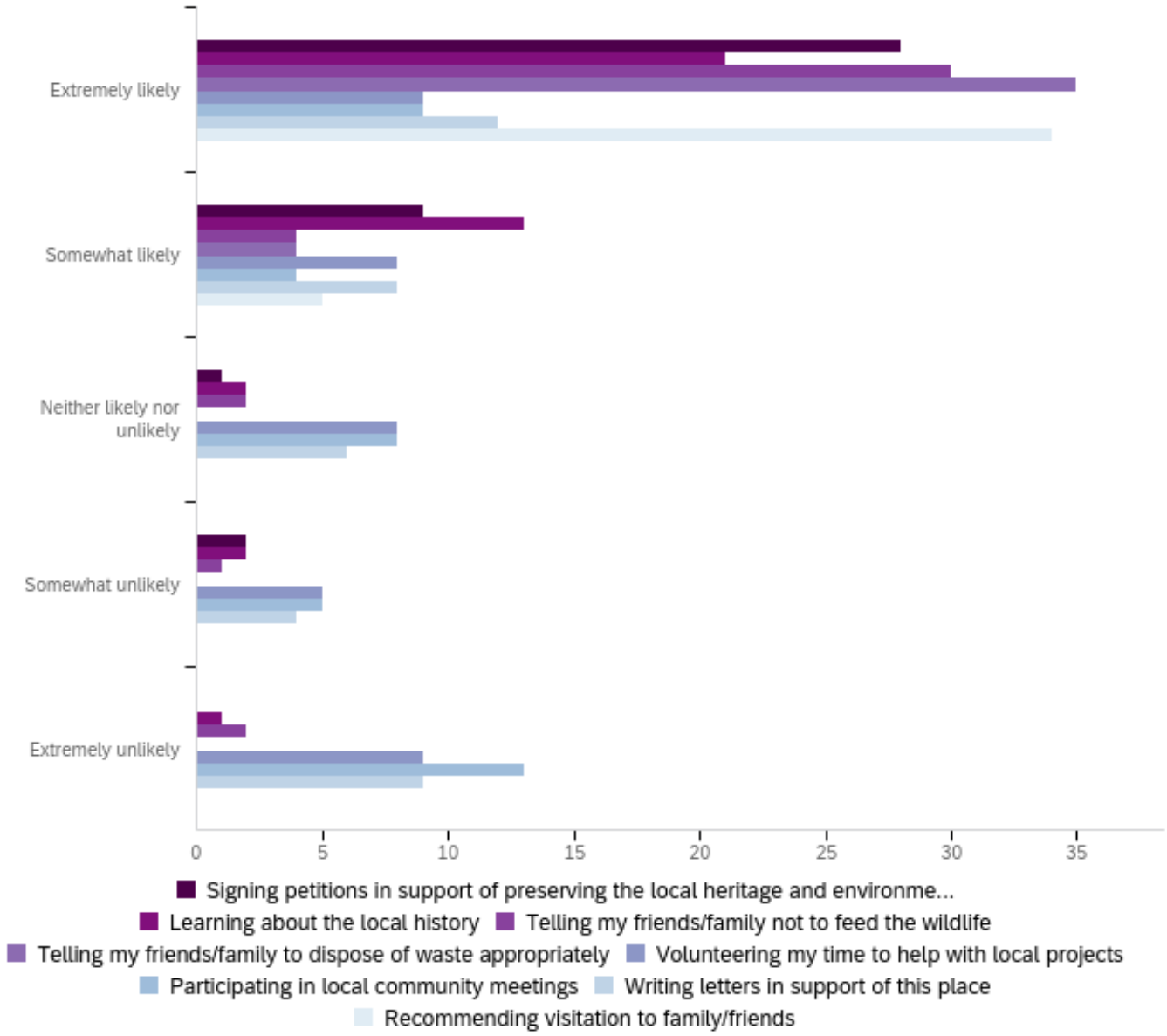

Figure C-12 Graph of which behavioural factors visitors to the Garden Island Shipwreck Graveyard are likely to undertake.

Clipper Ship City of Adelaide

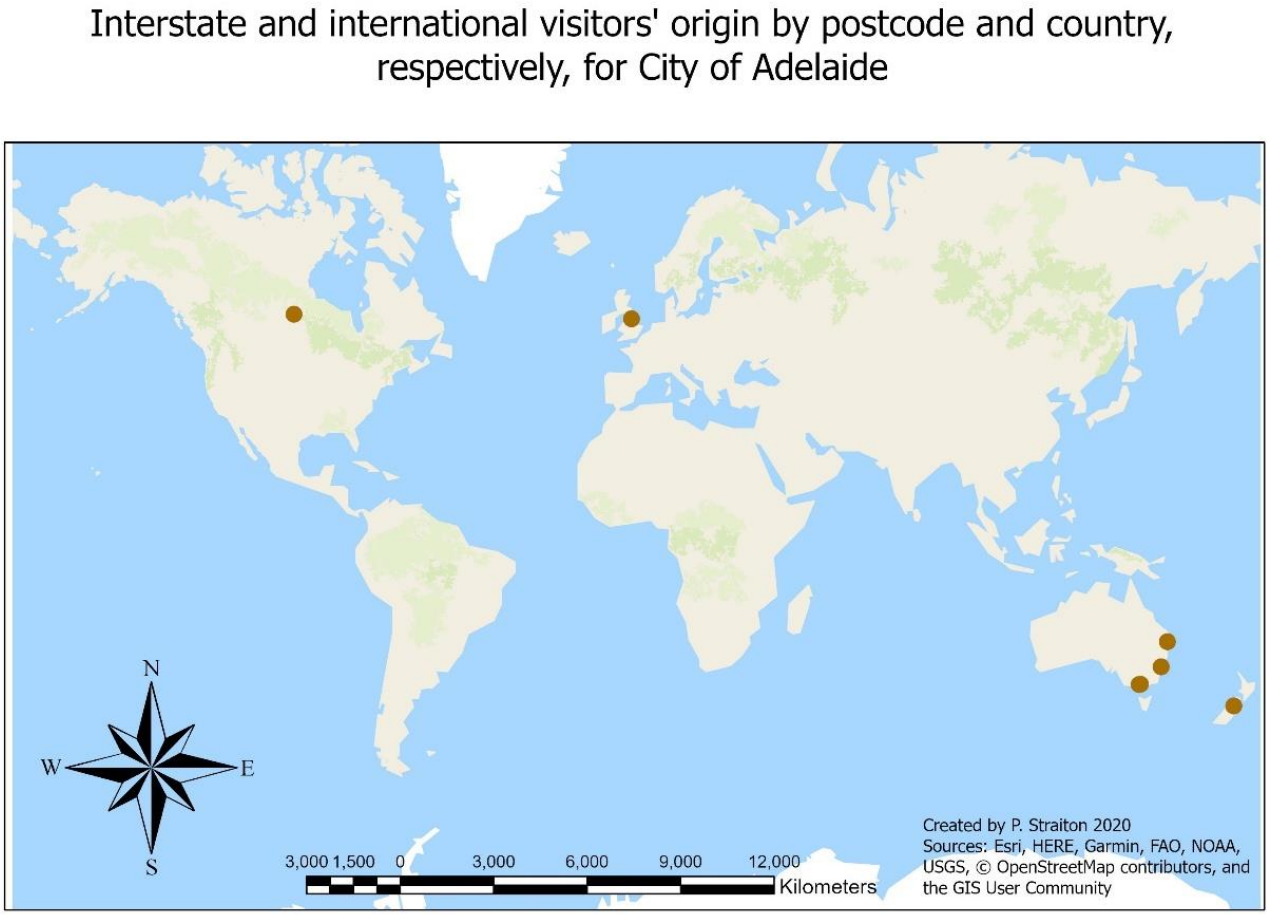

Figure C-13 Origin of interstate and international visitors to the Clipper Ship City of Adelaide, *by postcode and country, respectively.*

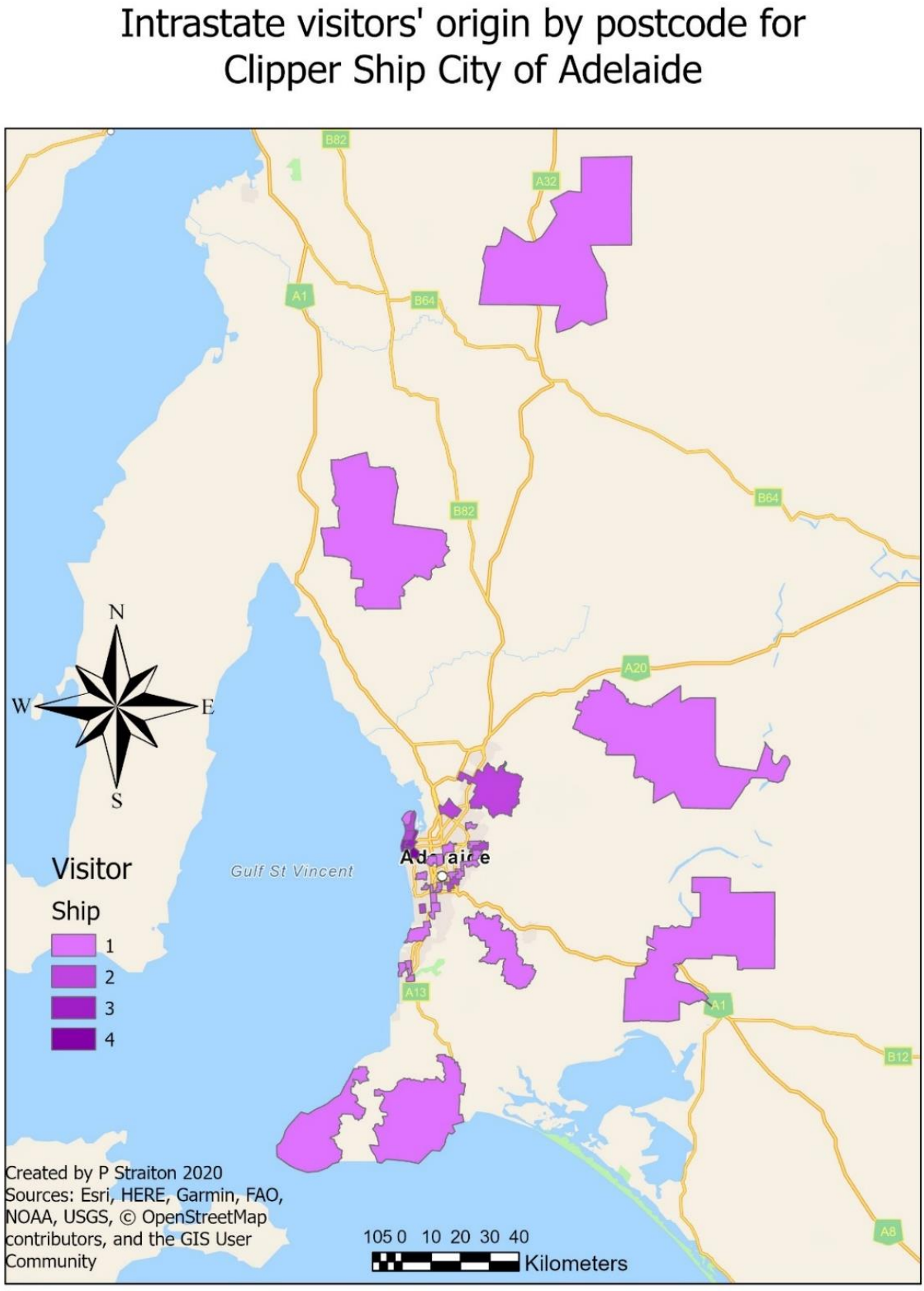

Figure C-14 Large map of the Clipper Ship's intrastate survey participants' origin by postcode.

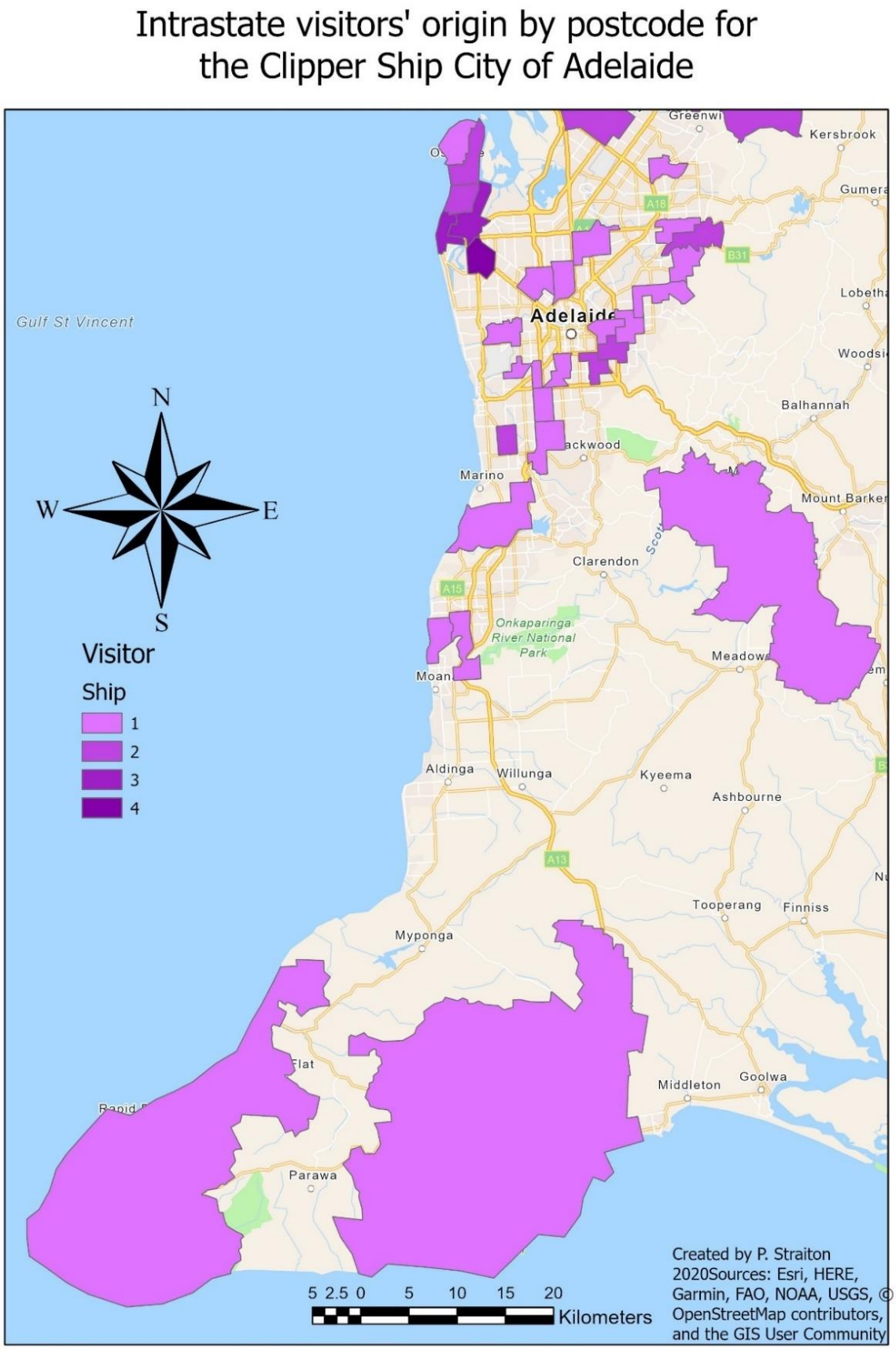

Figure C-15 Adelaide focused map of the Clipper Ship's intrastate survey participants' origin by postcode.

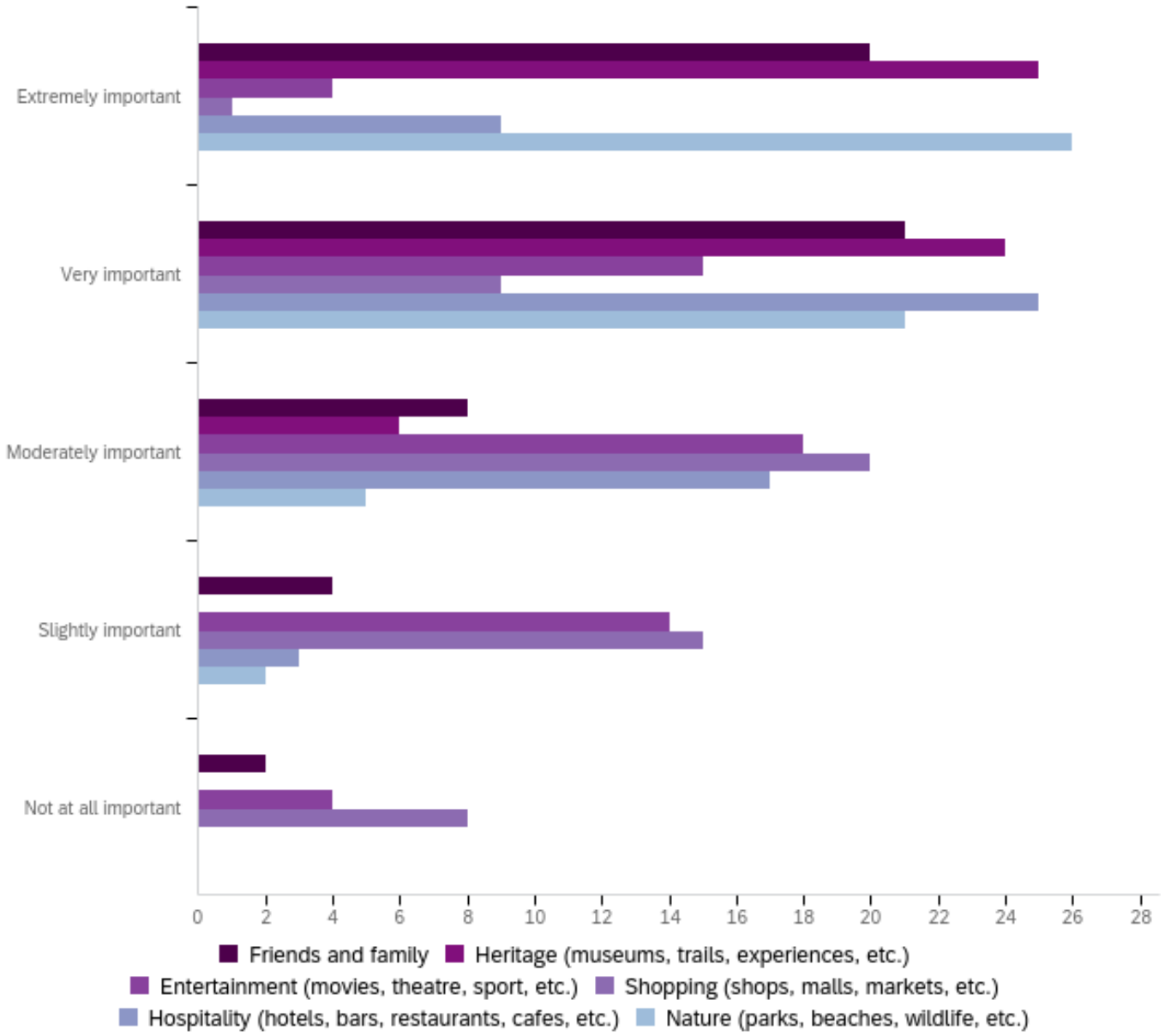

Figure C-16 Graph on factors visitors to the Clipper Ship City of Adelaide *feel are important for their travel and holiday plans.*

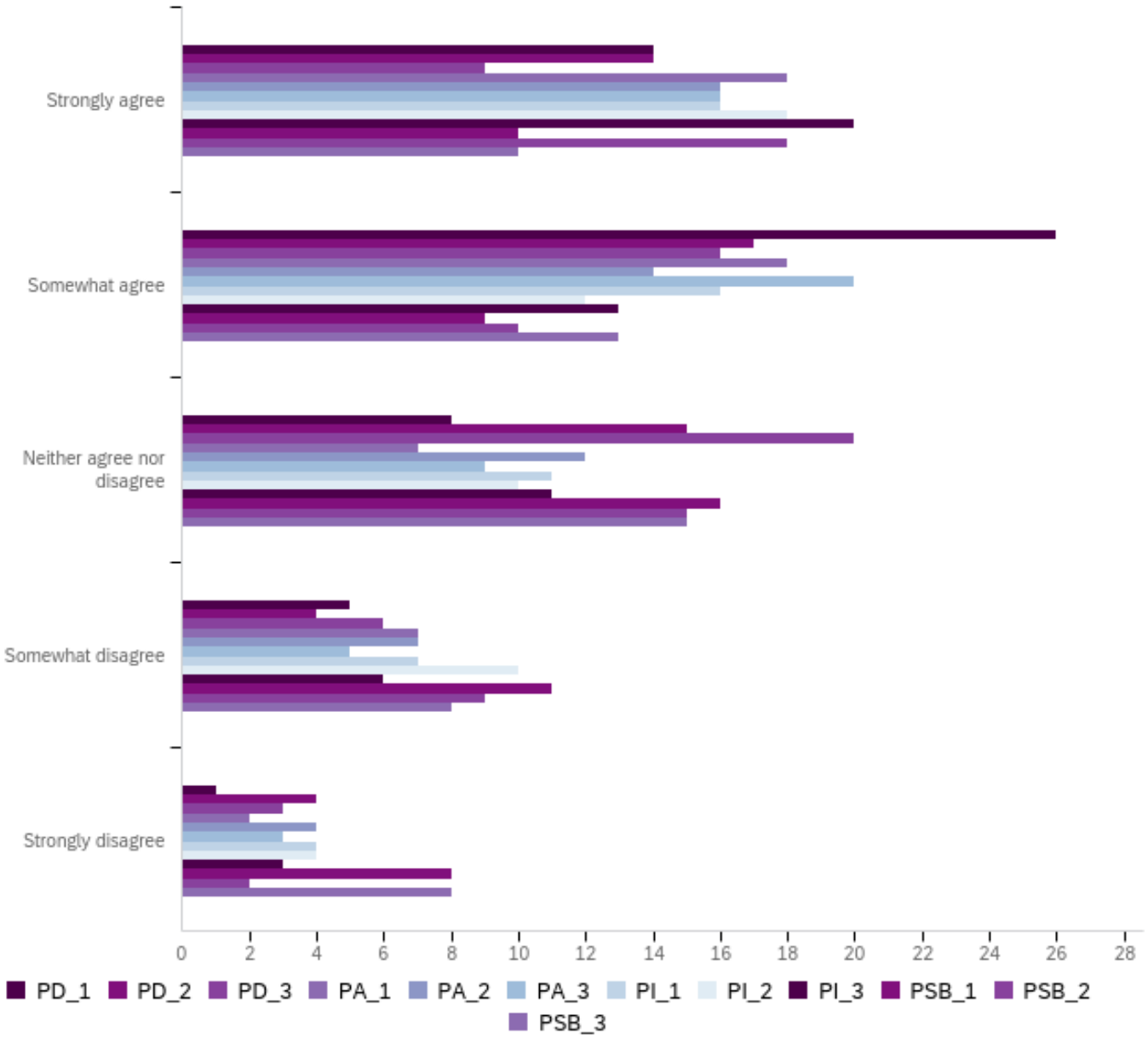

Figure C-17 Graph of which place attachment factors help visitors to the Clipper Ship City of Adelaide.

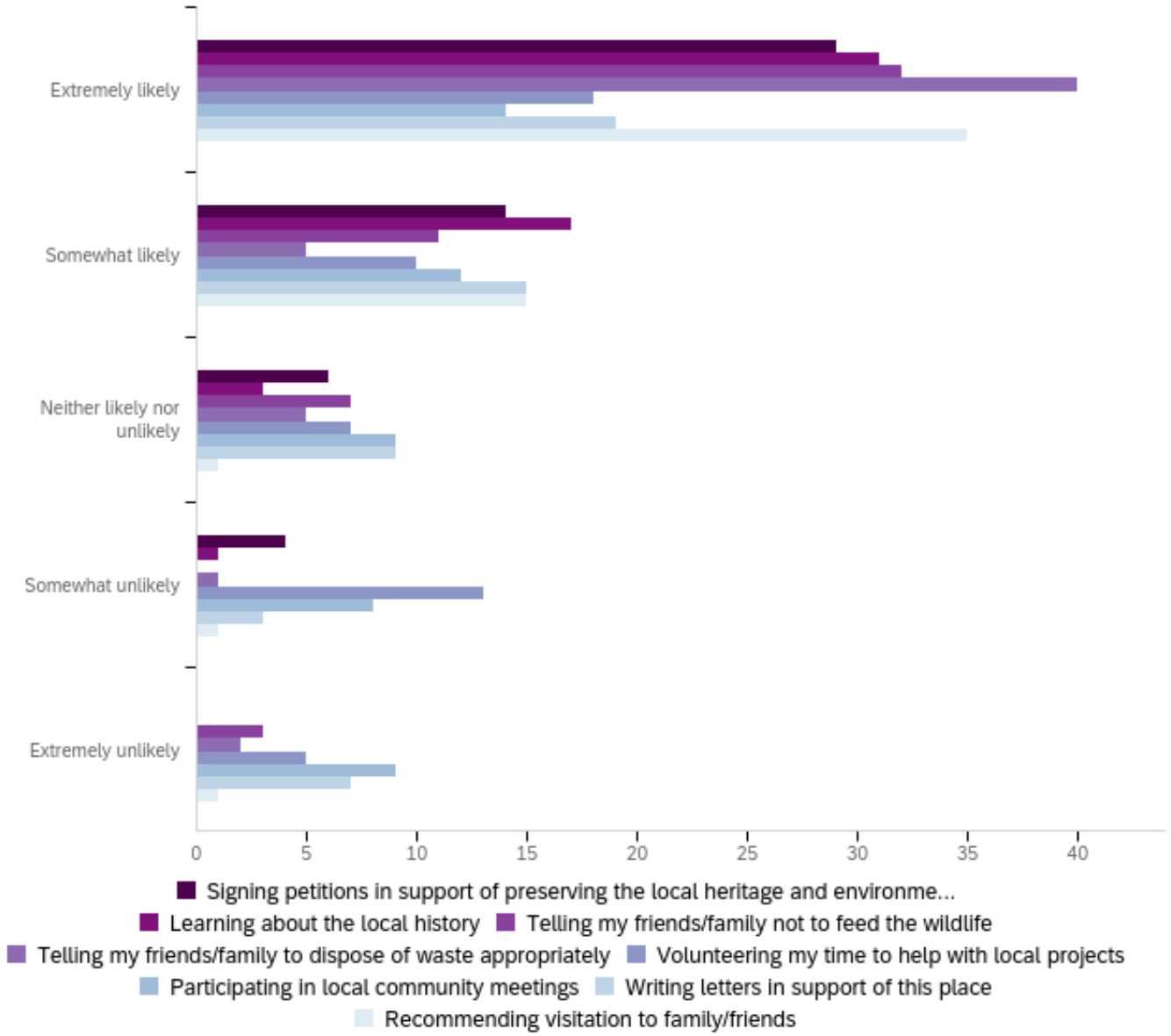

Figure C-18 Graph of which behavioural factors visitors to the Clipper Ship City of Adelaide *are likely to undertake.*

Port Willunga

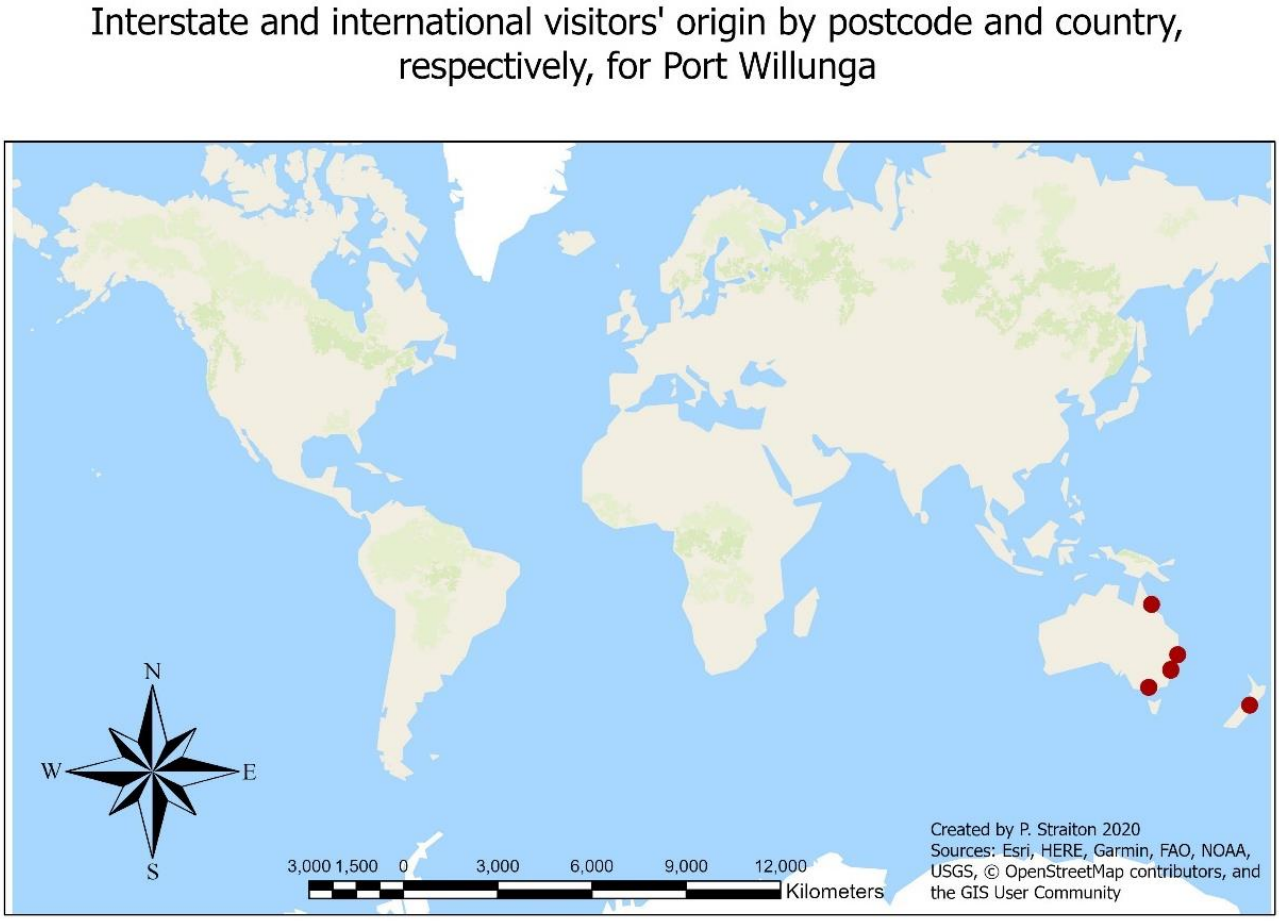

Figure C-19 Origin of interstate and international visitors to Port Willunga, by postcode and country respectively.

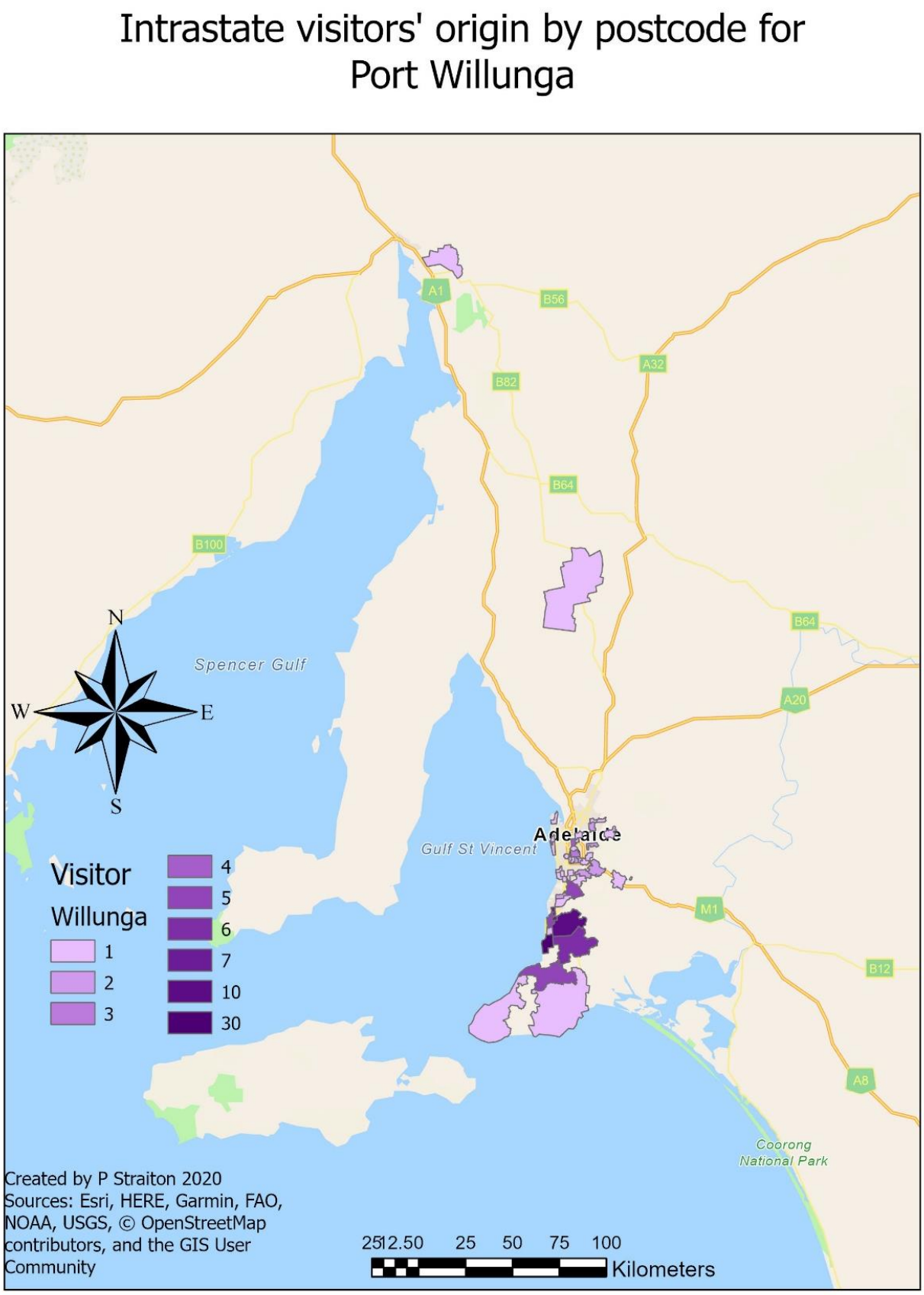

Figure C0-20 Large map of Port Willunga's intrastate survey participants' origin by postcode.

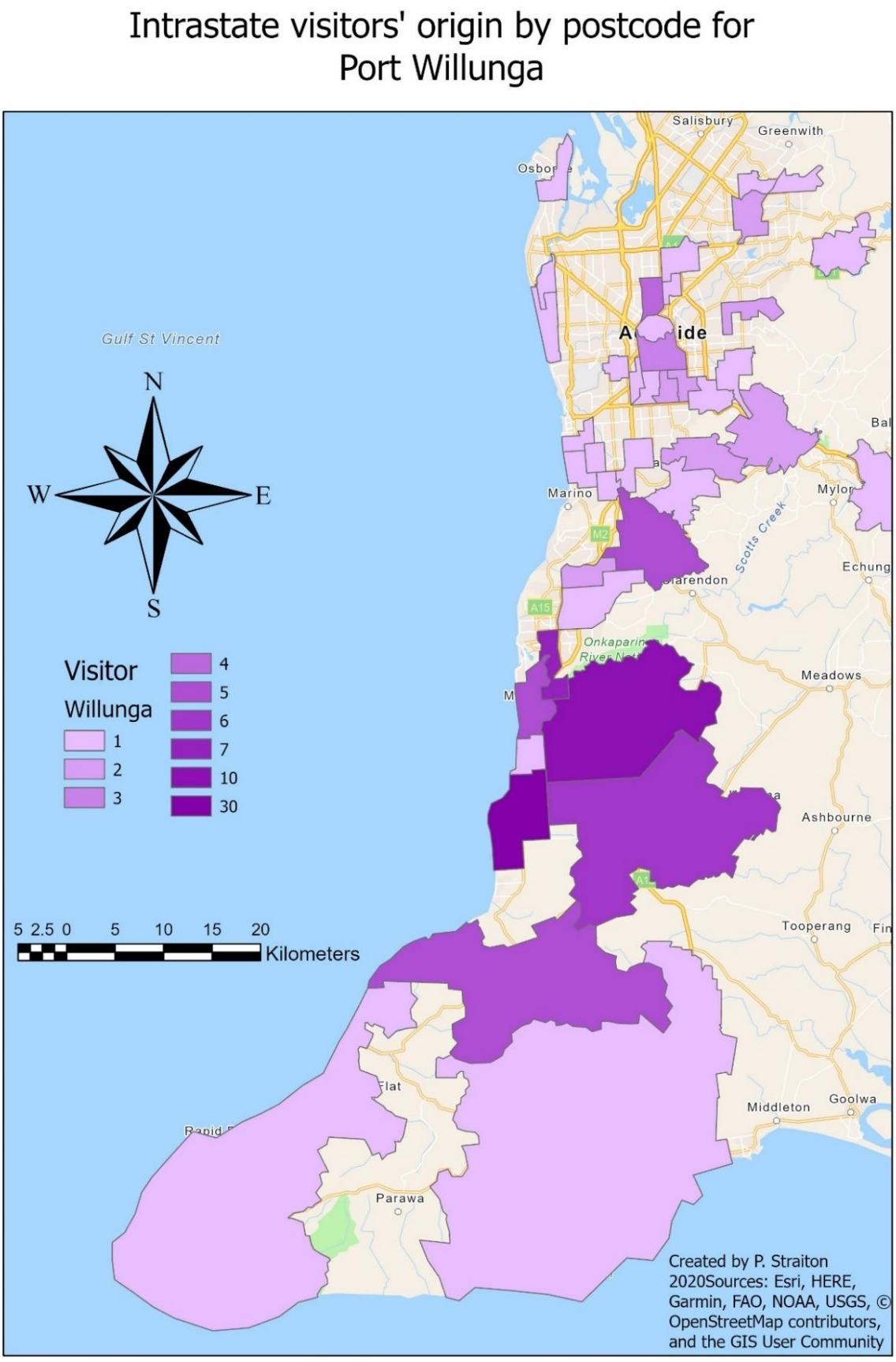

Figure C-21 Adelaide focused map of Port Willunga's intrastate survey participants' origin by postcode.

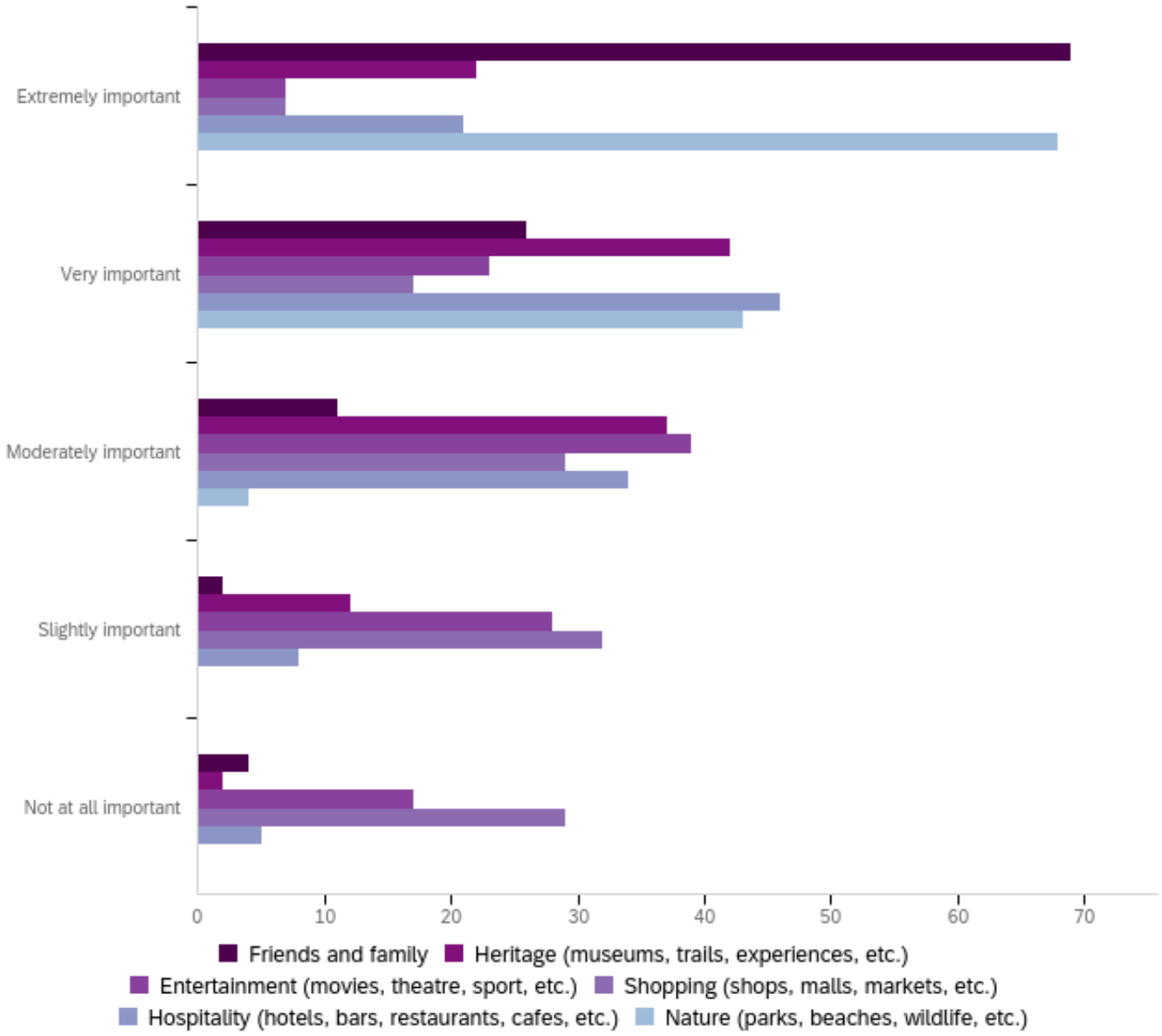

Figure C-22 Graph on factors visitors to Port Willunga feel are important for their travel and holiday plans.

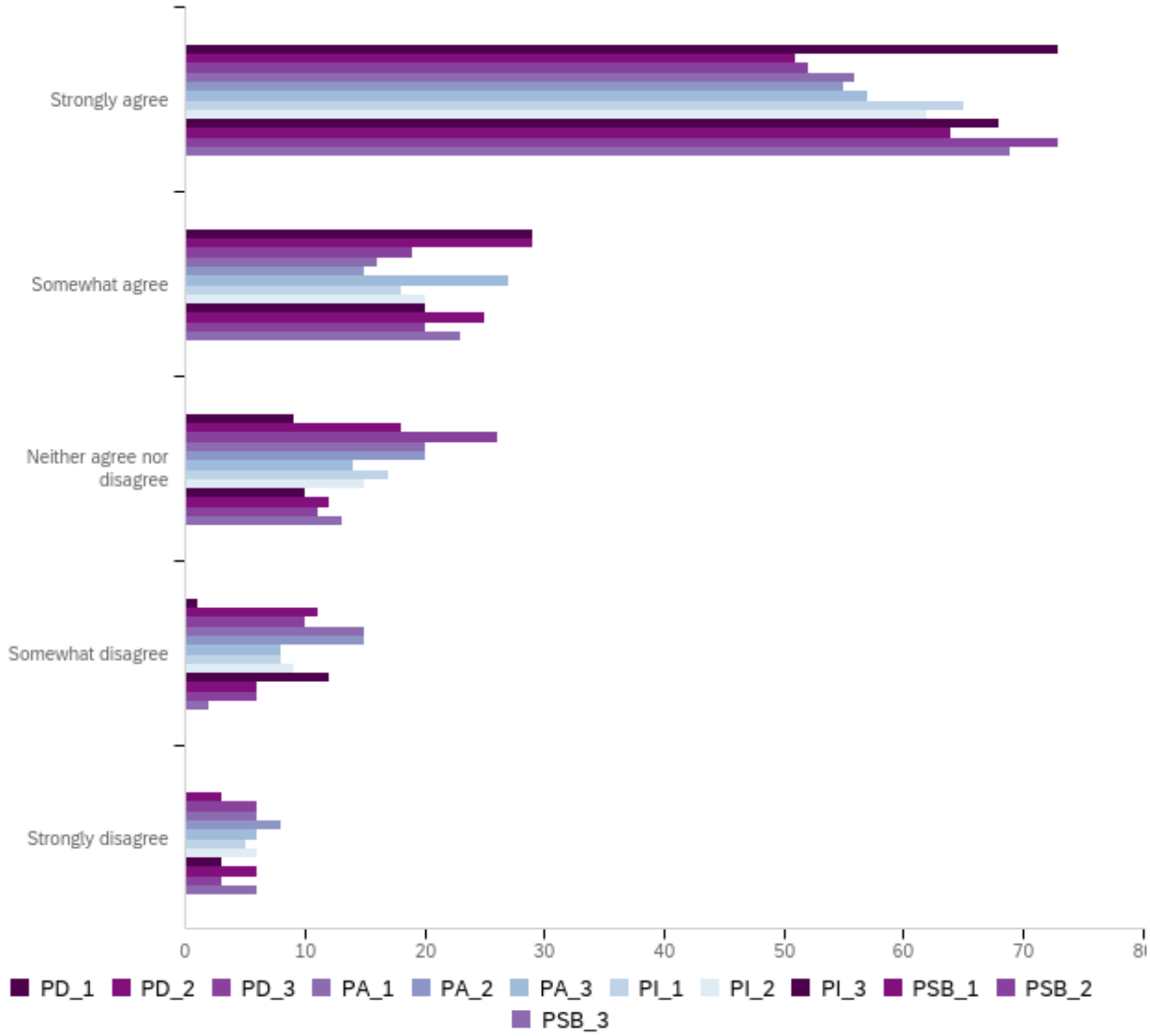

Figure C-23 Graph of which place attachment factors help visitors to Port Willunga experience attachment.

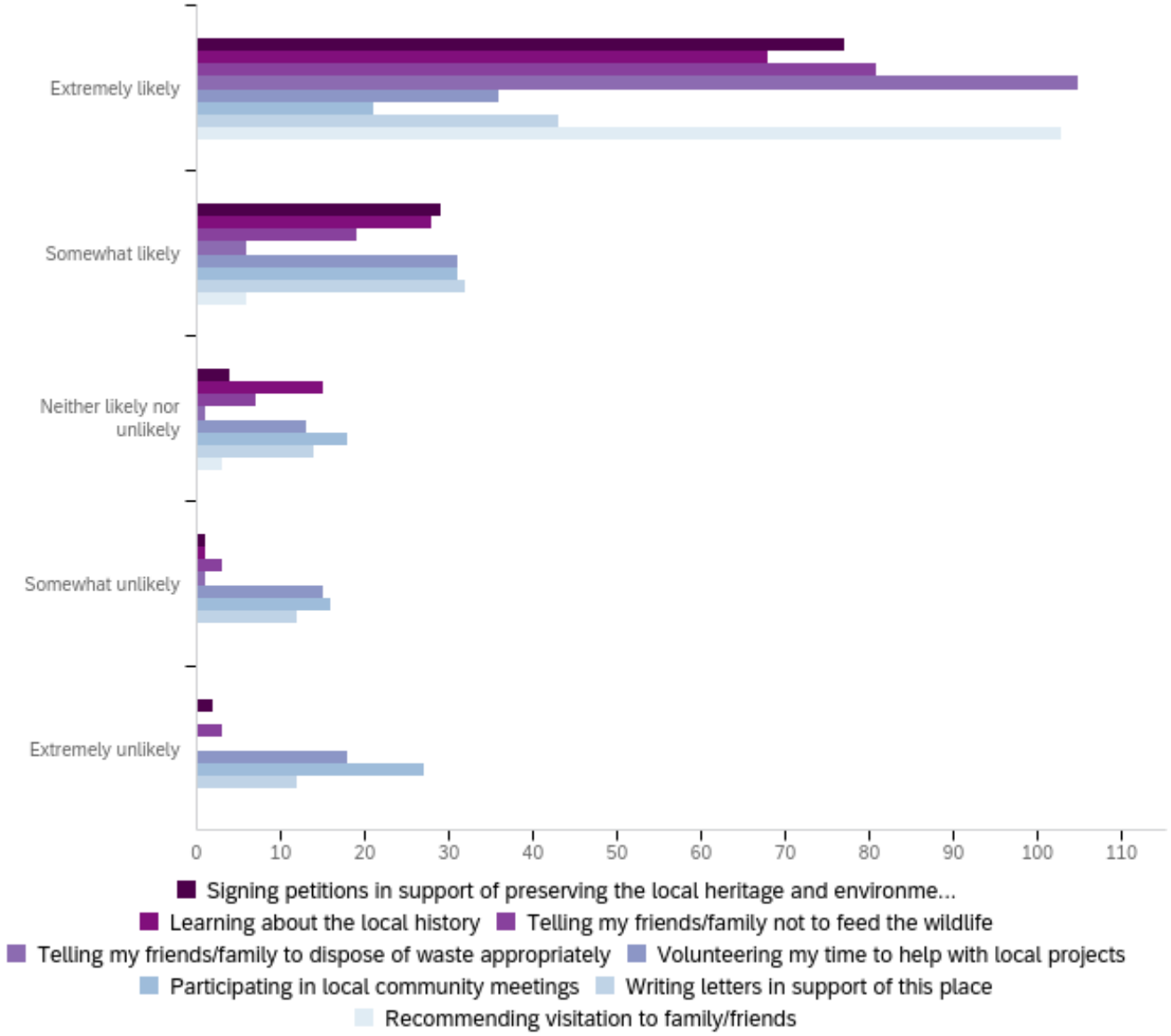

Figure C-24 Graph of which behavioural factors visitors to Port Willunga are likely to undertake.

Ex-HMAS Hobart

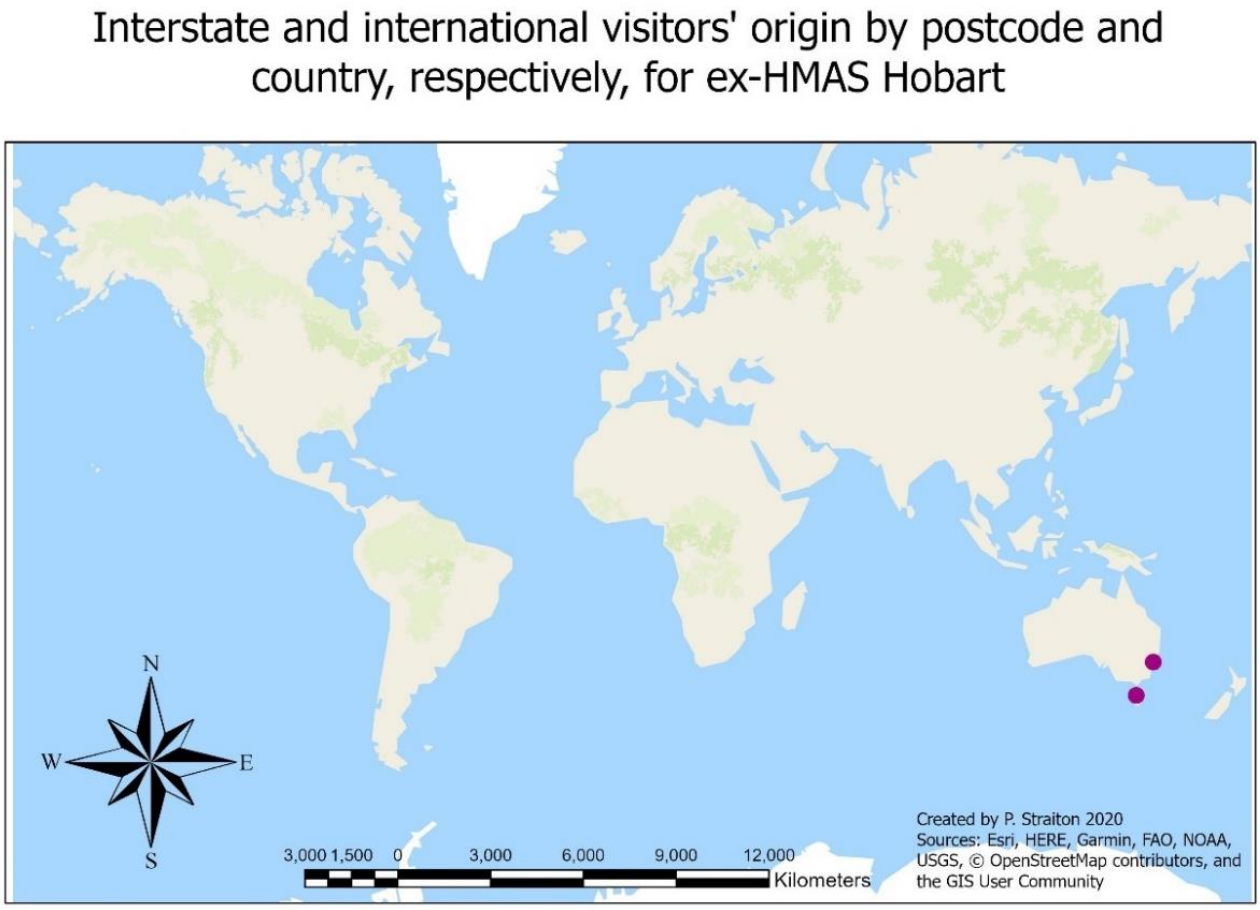

Figure C-25 Origin of interstate and international visitors to ex-HMAS Hobart*, by postcode and country, respectively.*

Figure C-26 Large map of the ex-HMAS Hobart's intrastate survey participants' origin by postcode.

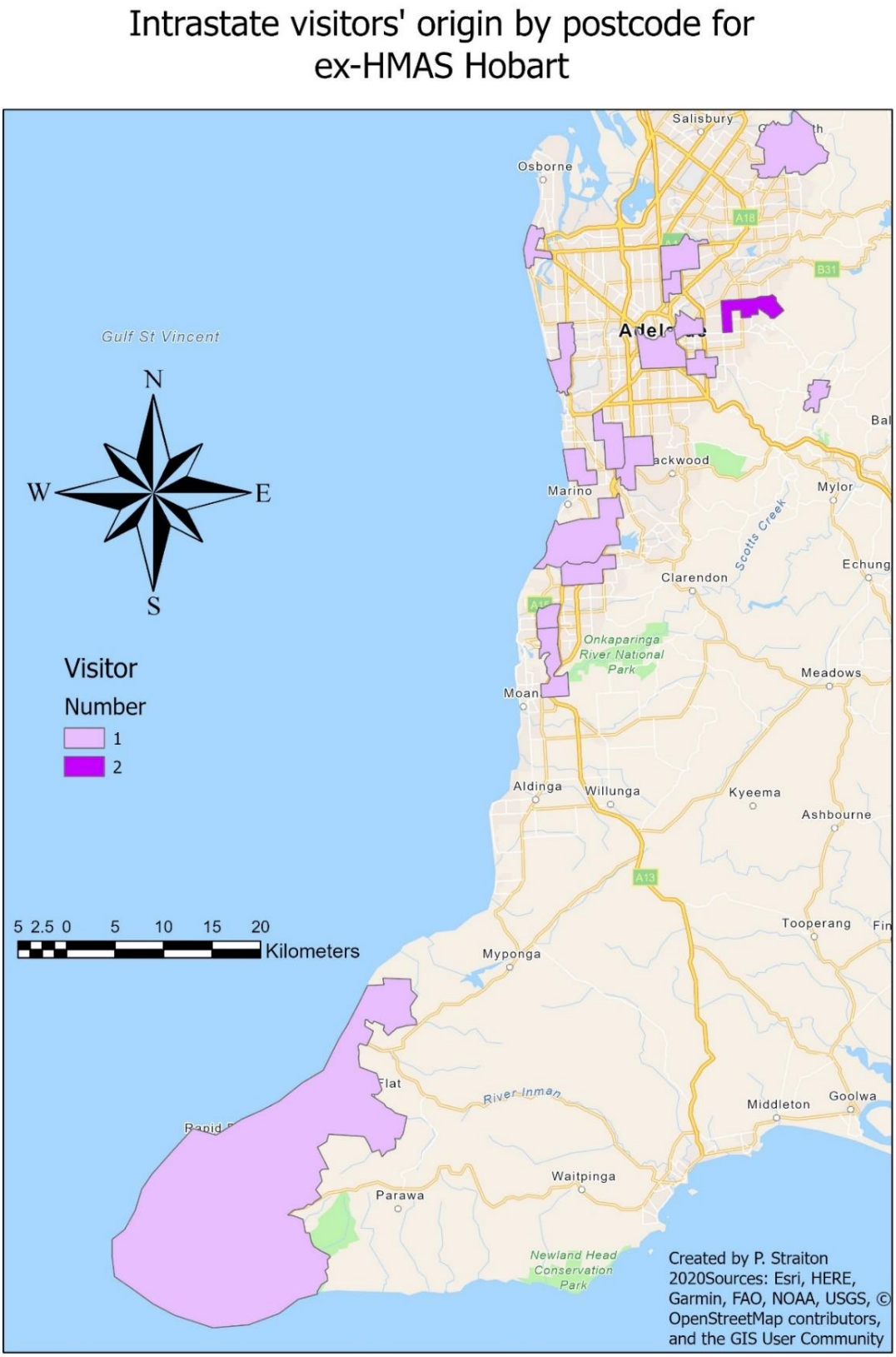

Figure C-27 Adelaide focused map of ex-HMAS Hobart's intrastate survey participants' origin by postcode.

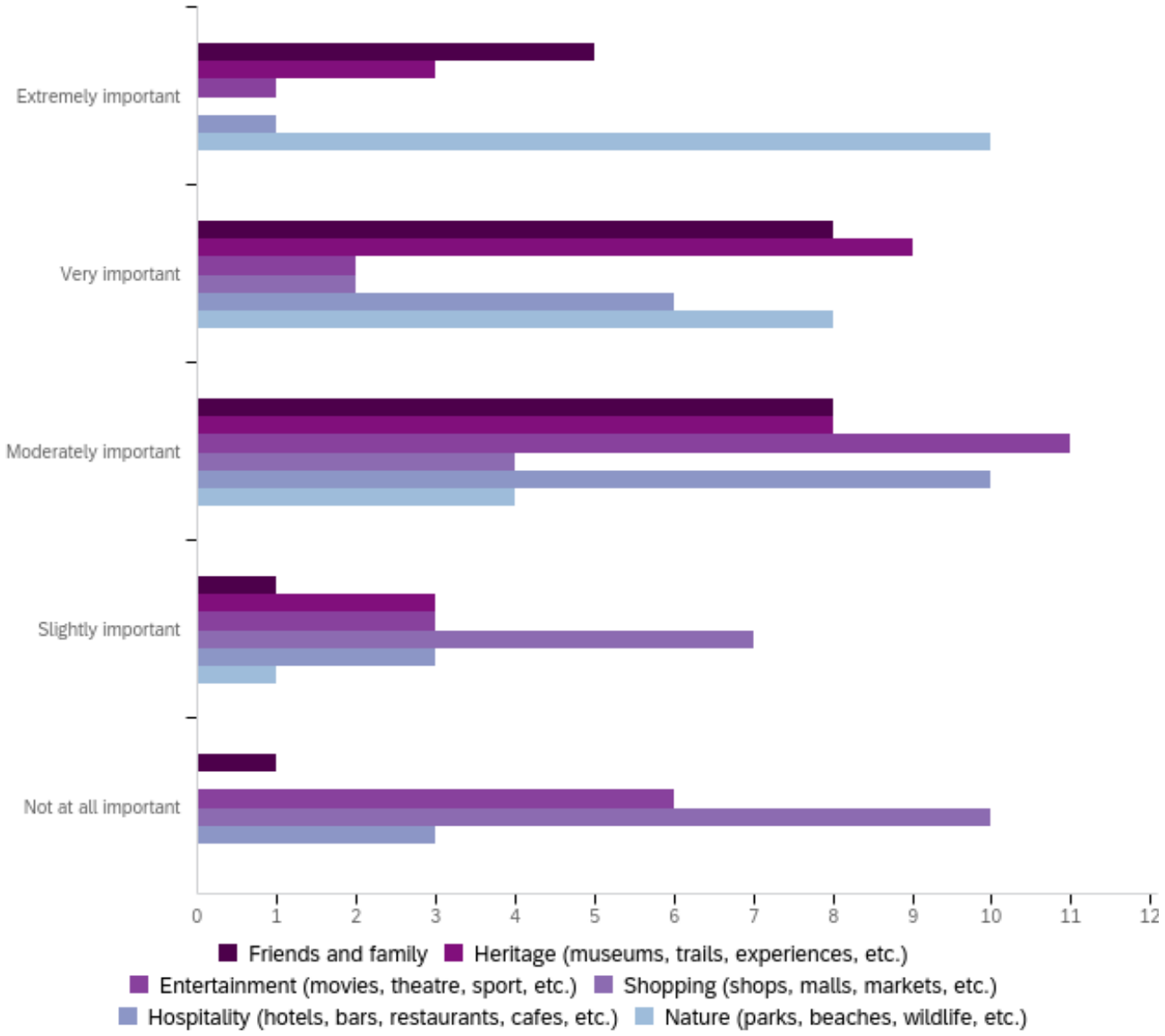

Figure C-28 Graph on factors visitors to ex-HMAS Hobart feel are important for their travel and holiday plans.

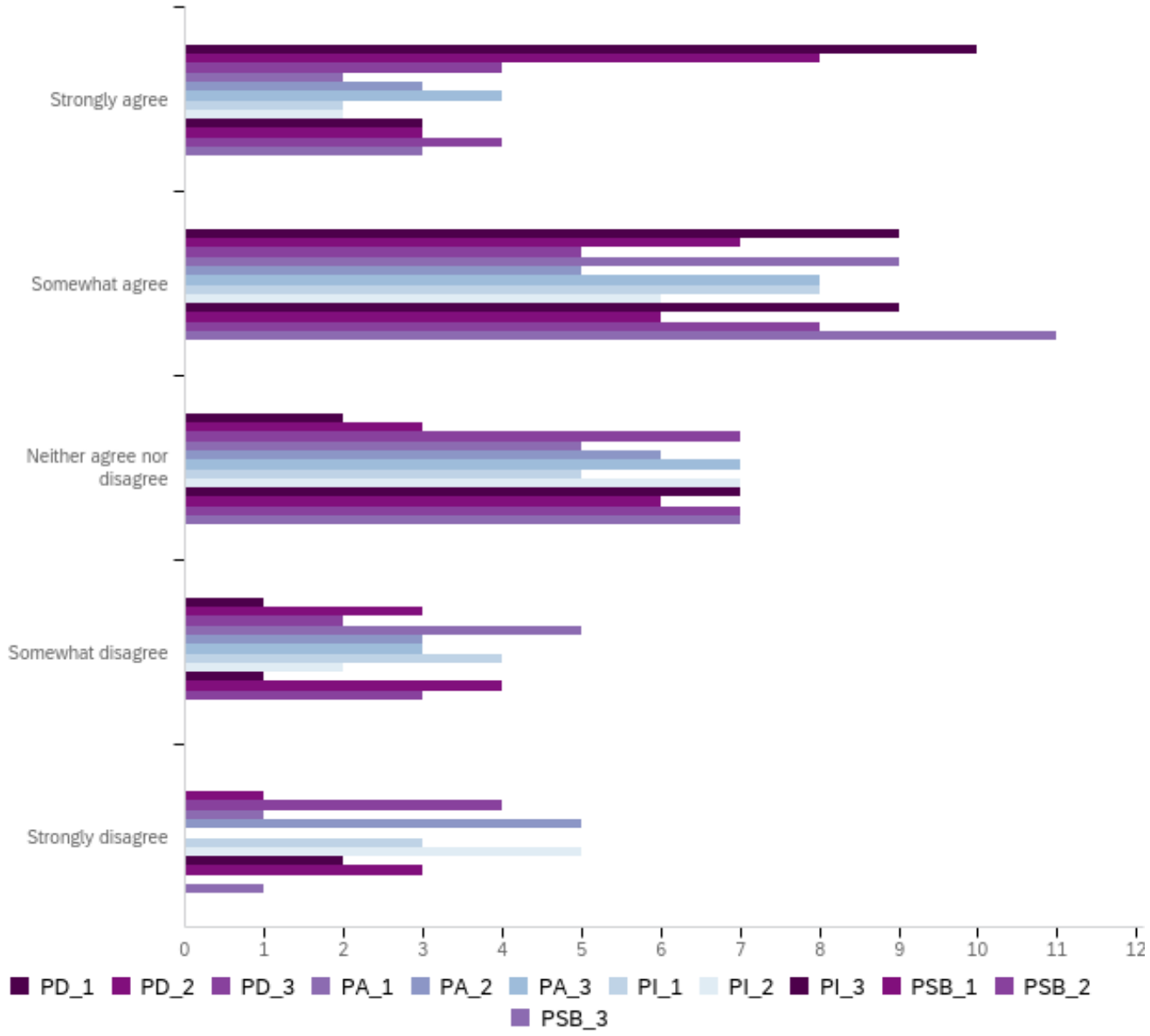

Figure C-29 Graph of which place attachment factors help visitors to ex-HMAS Hobart *experience attachment.*

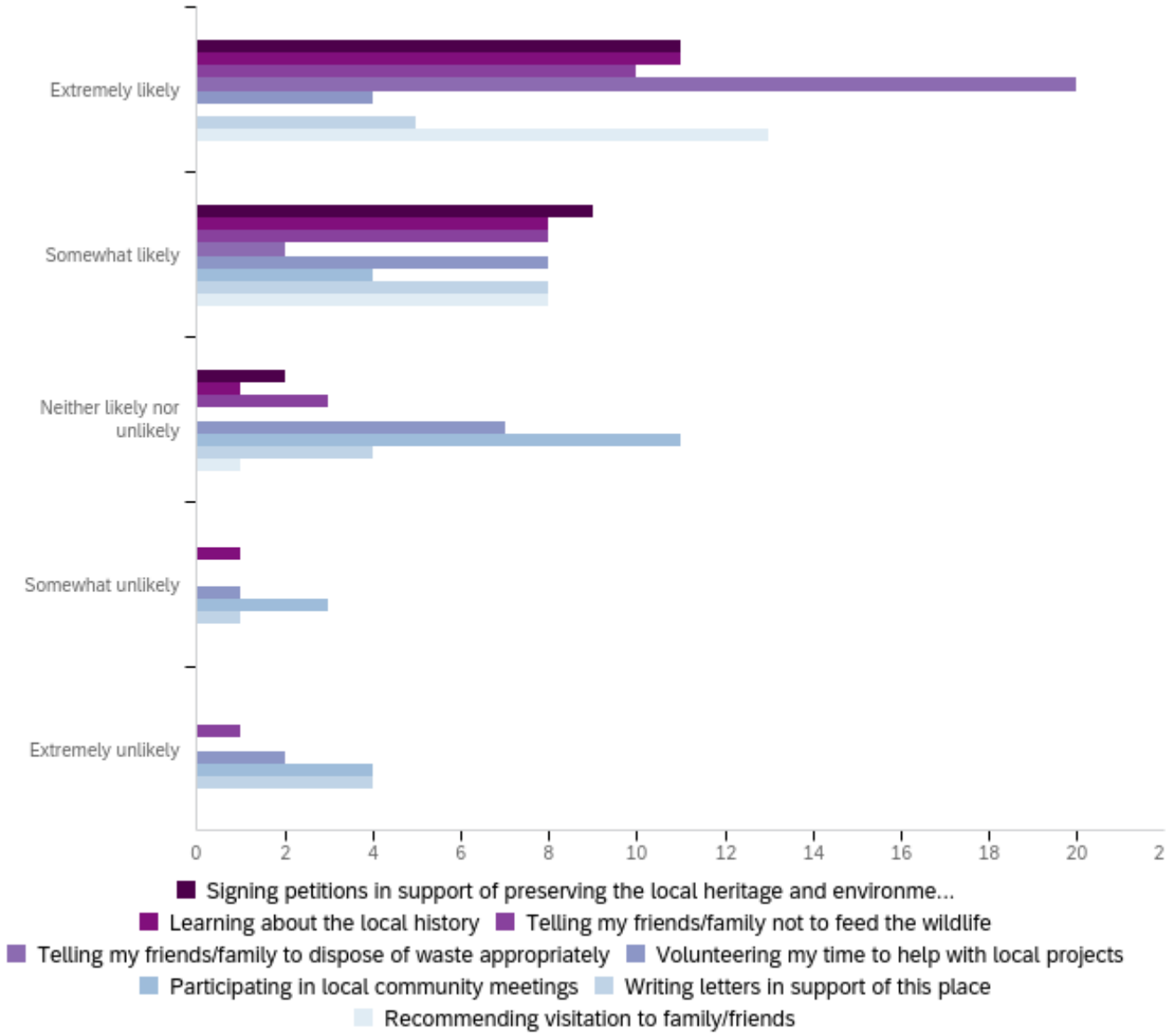

Figure C-30 Graph of which behavioural factors visitors to ex-HMAS Hobart *are likely to undertake.*

Rapid Bay

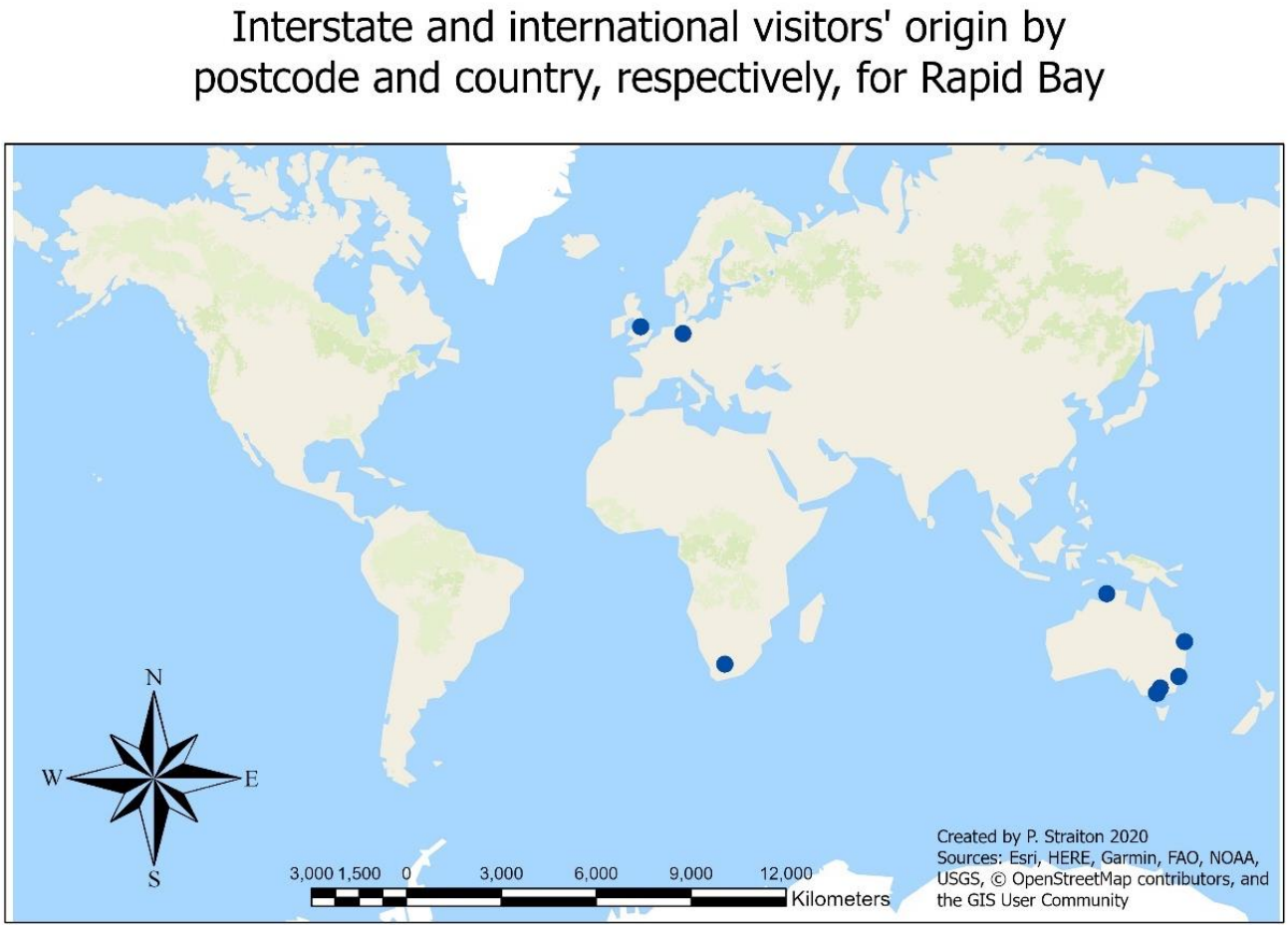

Figure C-31 Origin of interstate and international visitors to Rapid Bay, by postcode and country respectively.

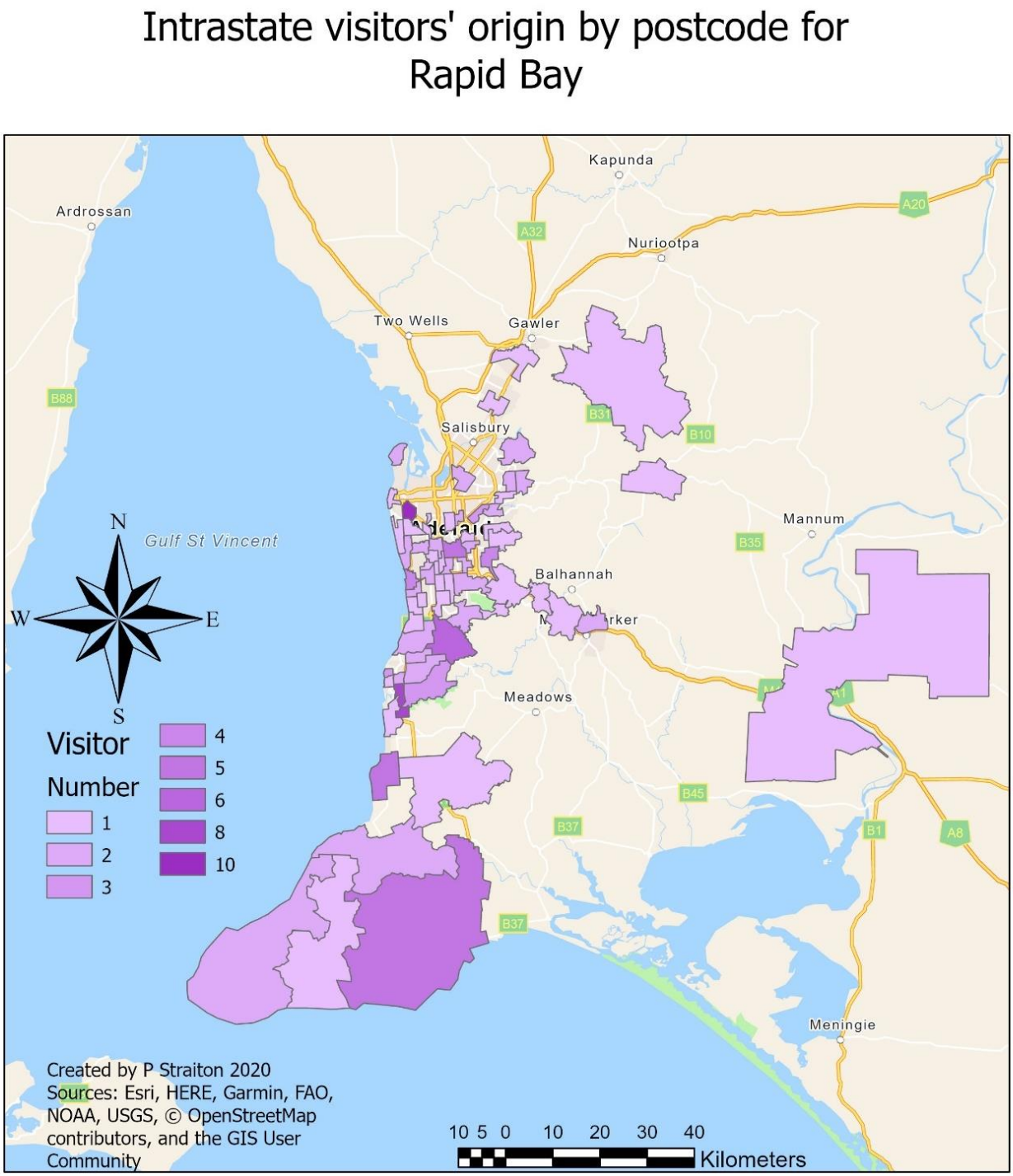

Figure C-32 Large map of the Rapid Bay's intrastate survey participants' origin by postcode.

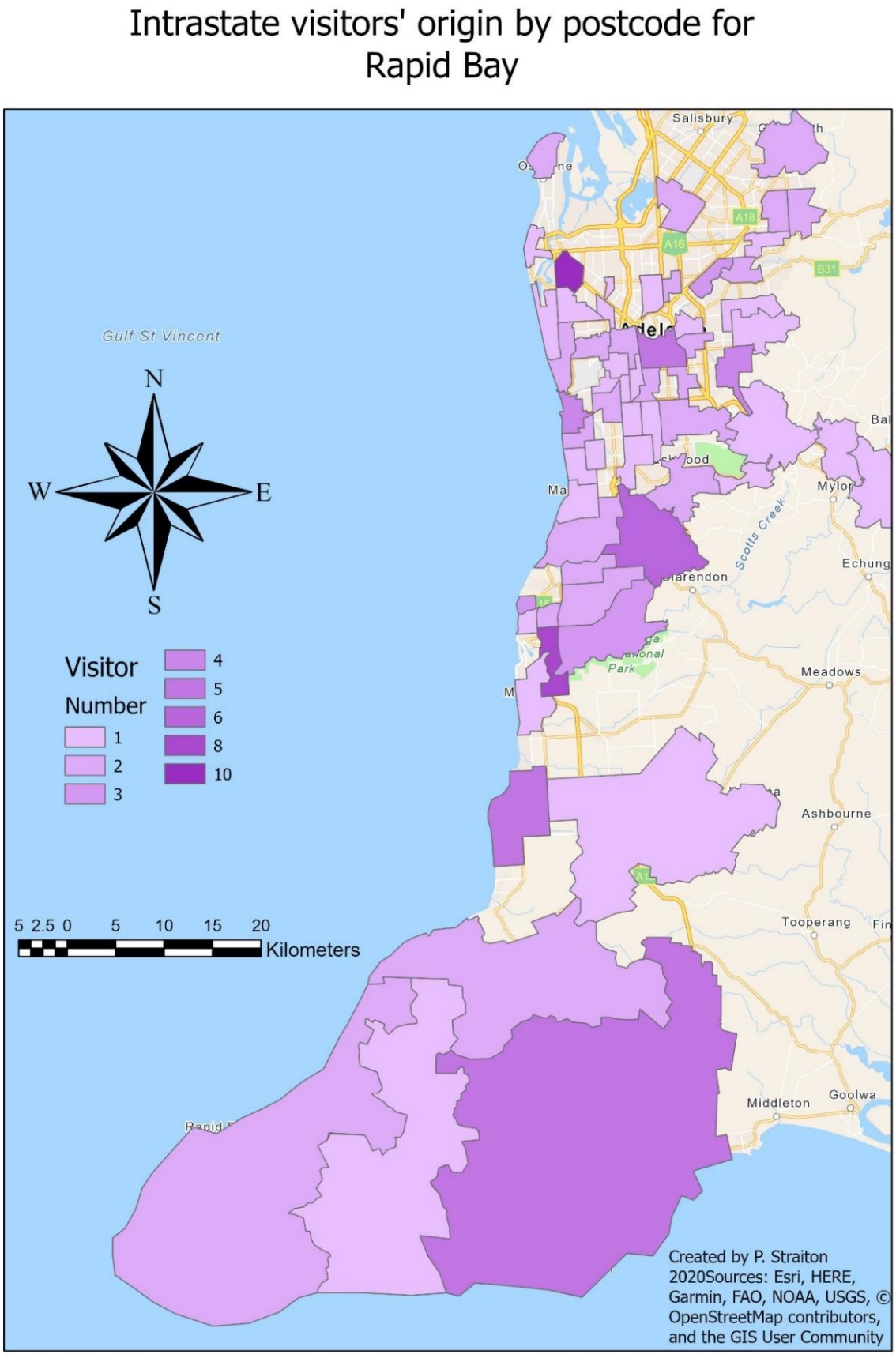

Figure C-33 Adelaide focused map of Rapid Bay's intrastate survey participants' origin by postcode.

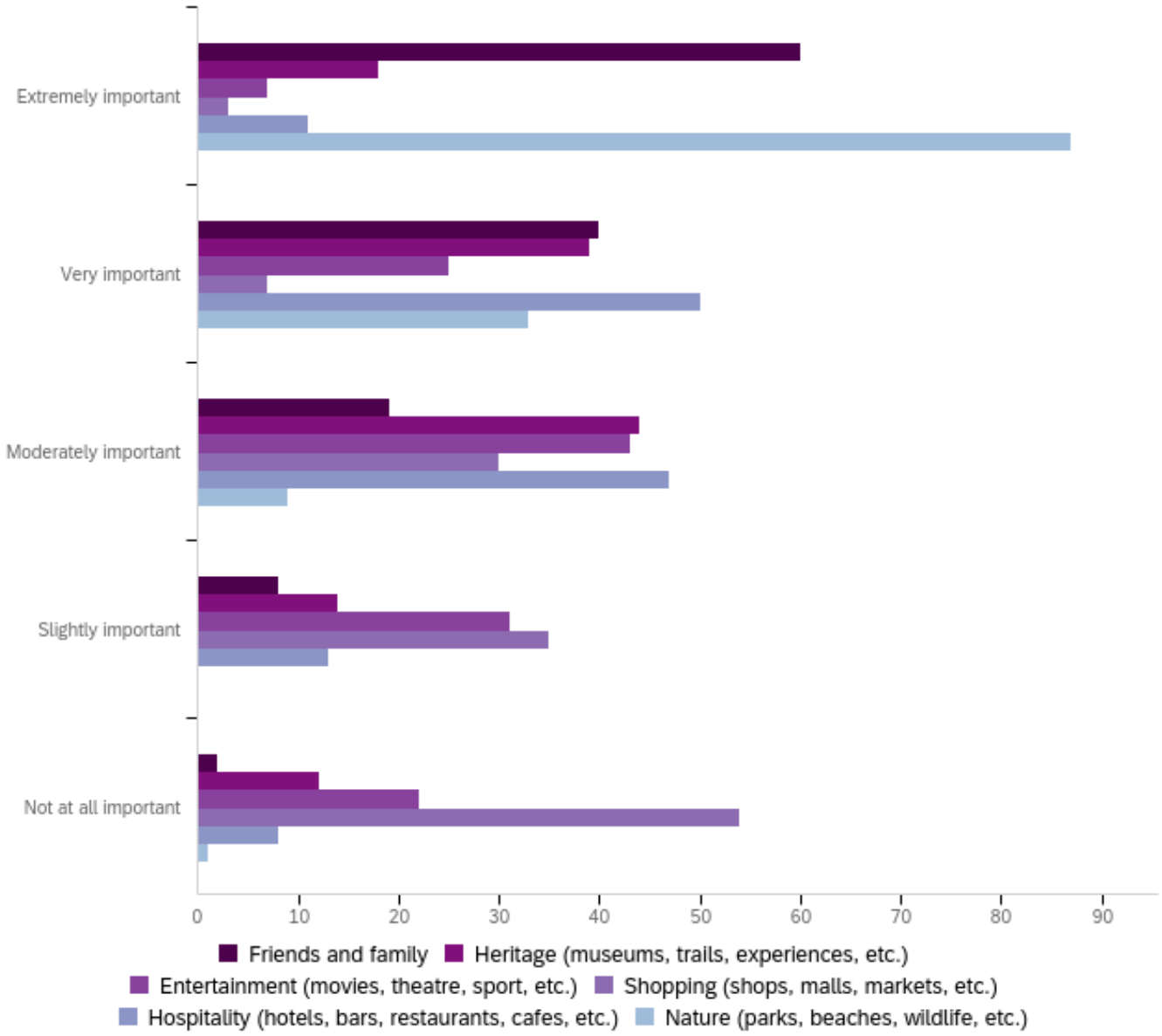

Figure C-34 Graph on factors visitors to Rapid Bay feel are important for their travel and holiday plans.

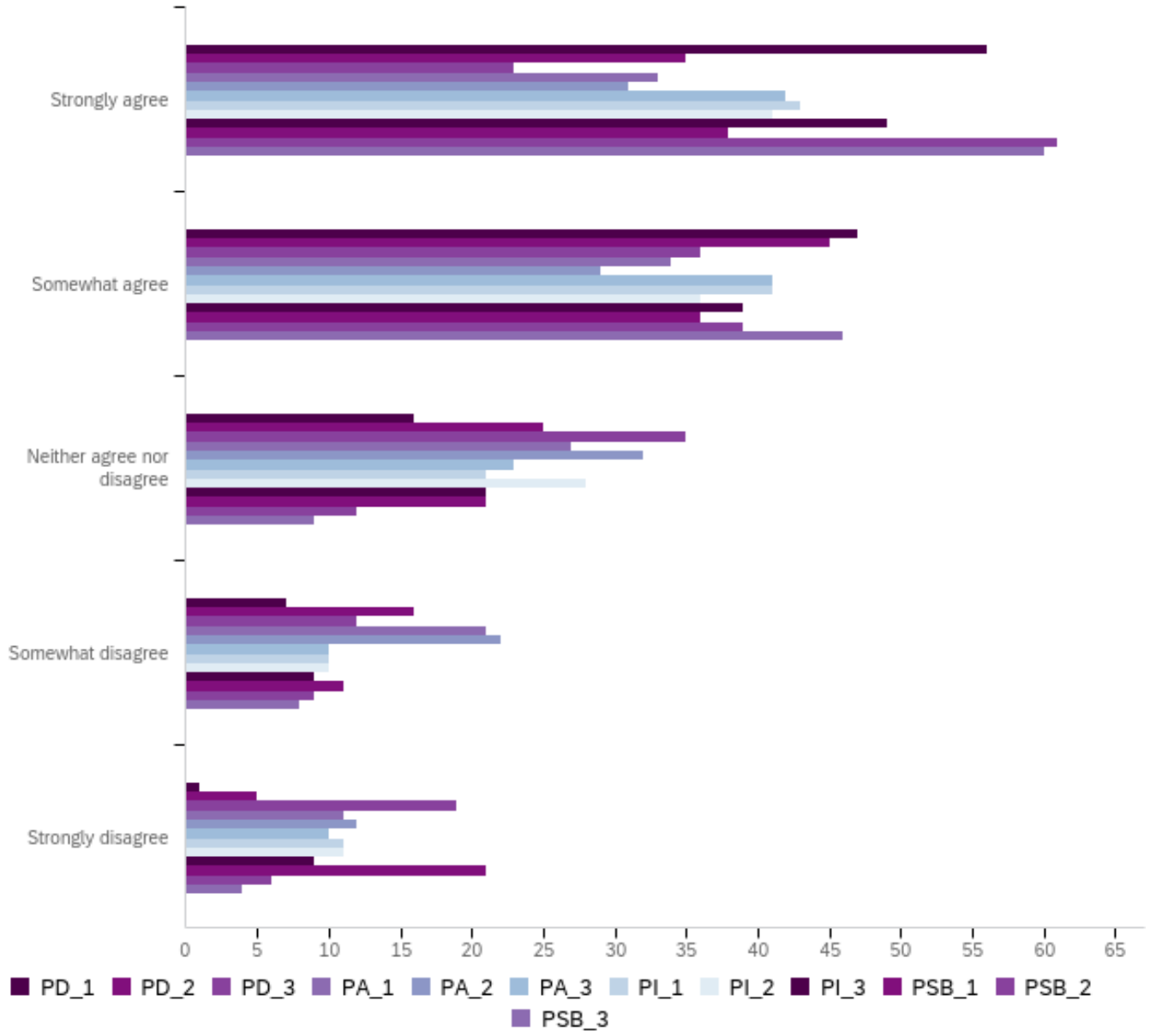

Figure C-35 Graph of which place attachment factors help visitors to Rapid Bay experience attachment.

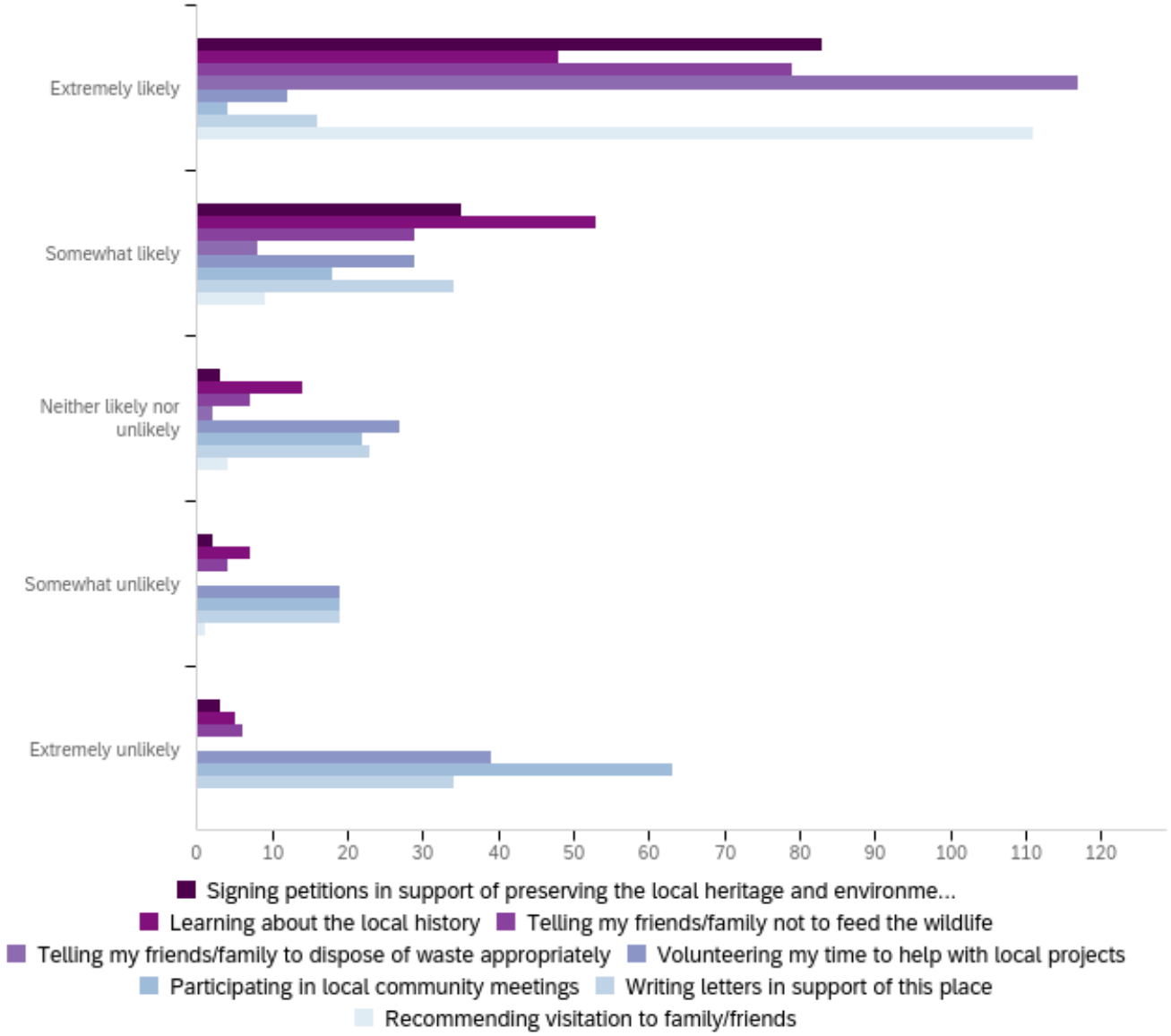

Figure C-36 Graph of which behavioural factors visitors to Rapid Bay are likely to undertake.

Maritime Cultural Heritage Tourism in South Australia

Figure C-37 Origin international visitors to all six selected maritime cultural heritage tourism sites by country.

Figure C-38 Origin of interstate visitors to all six selected maritime cultural heritage tourism sites by postcode.

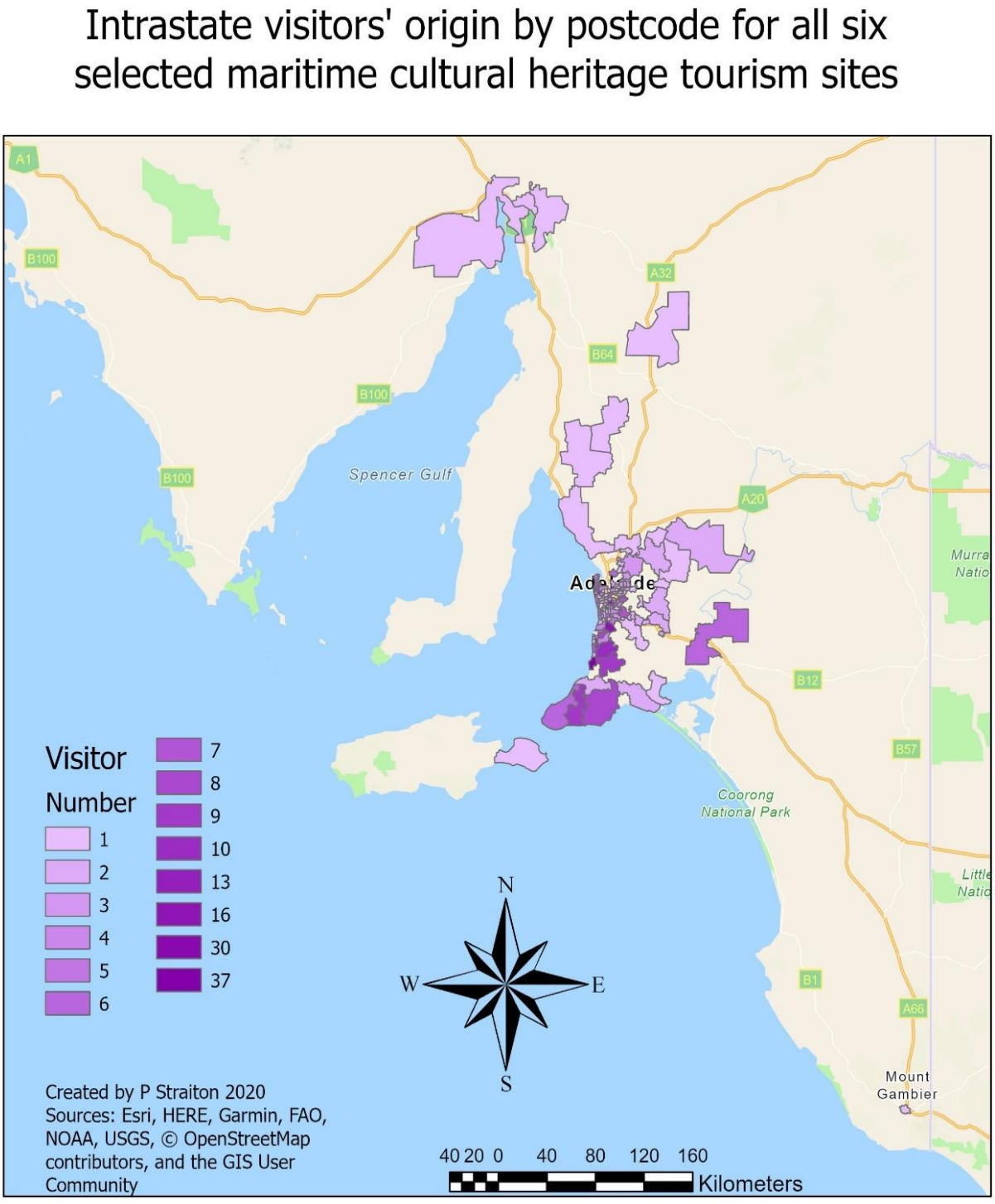

Figure C-39 Large map of all six selected maritime cultural heritage tourism site's intrastate survey participants' origin by postcode.

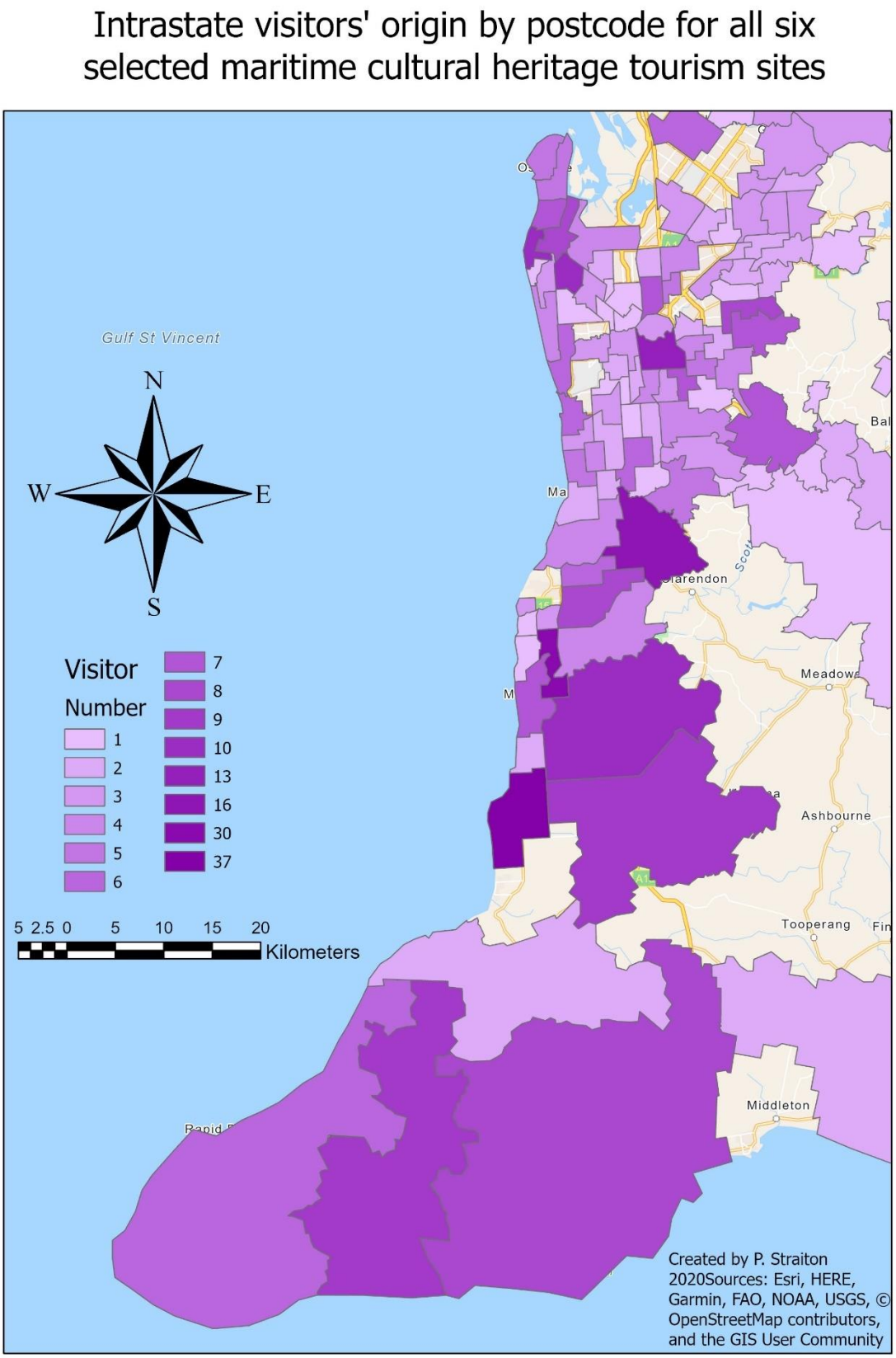

Figure C-40 Adelaide focused map of all six selected maritime cultural heritage tourism site's intrastate survey participants' origin by postcode.

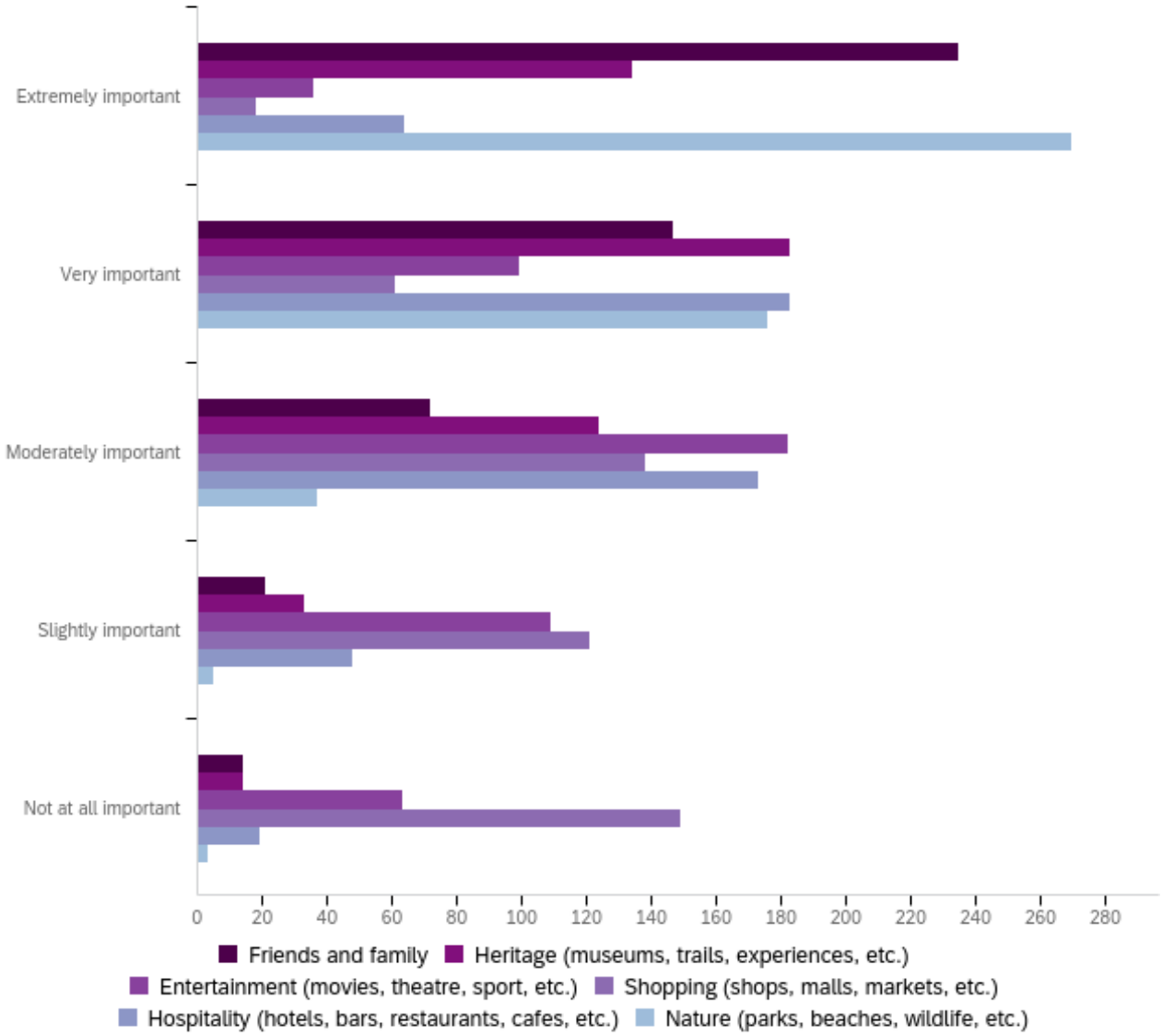

Figure C-41 Graph on factors visitors to all six selected maritime cultural heritage tourism sites feel are important for their travel and holiday plans.

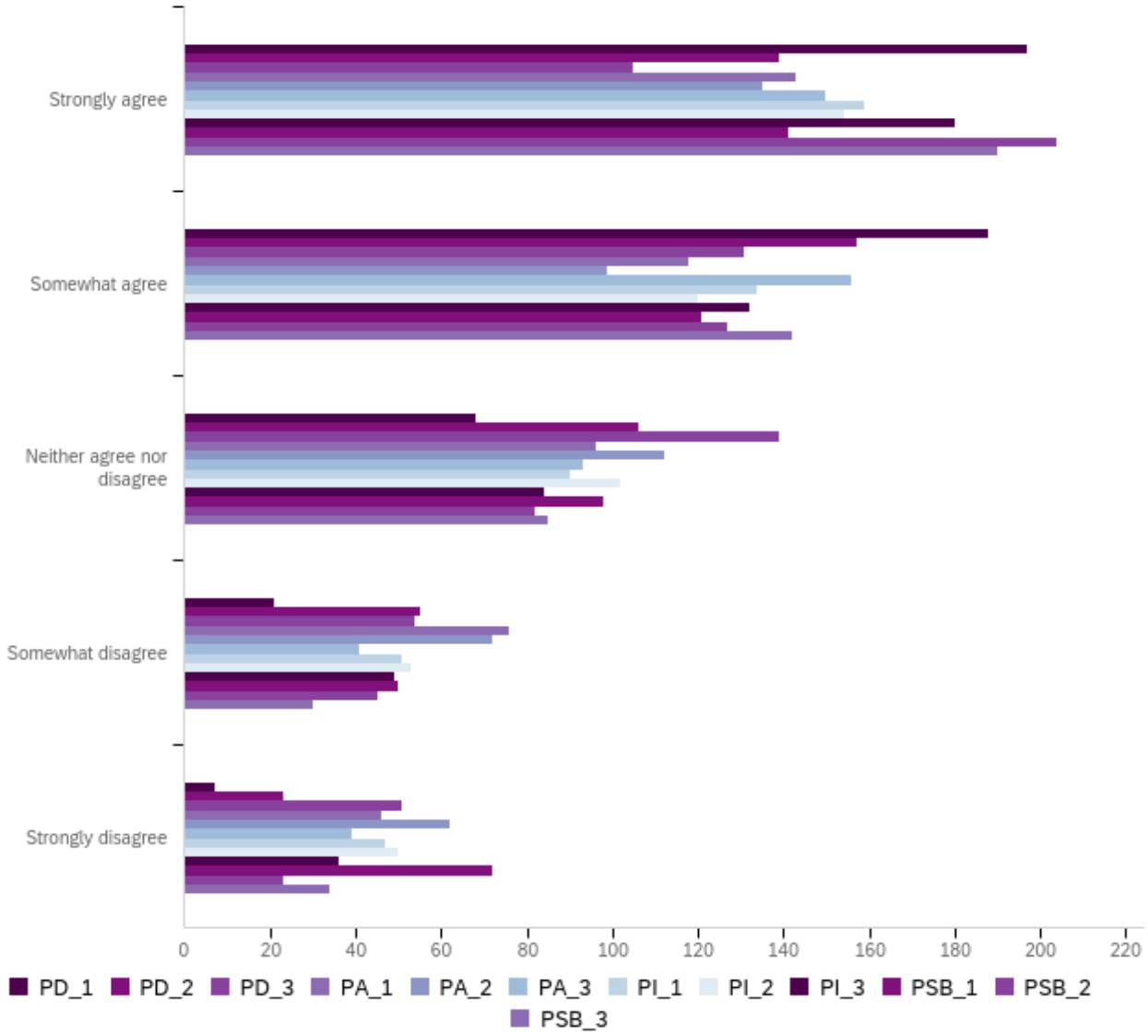

Figure C-42 Graph of which place attachment factors help visitors to all six selected sites experience attachment.

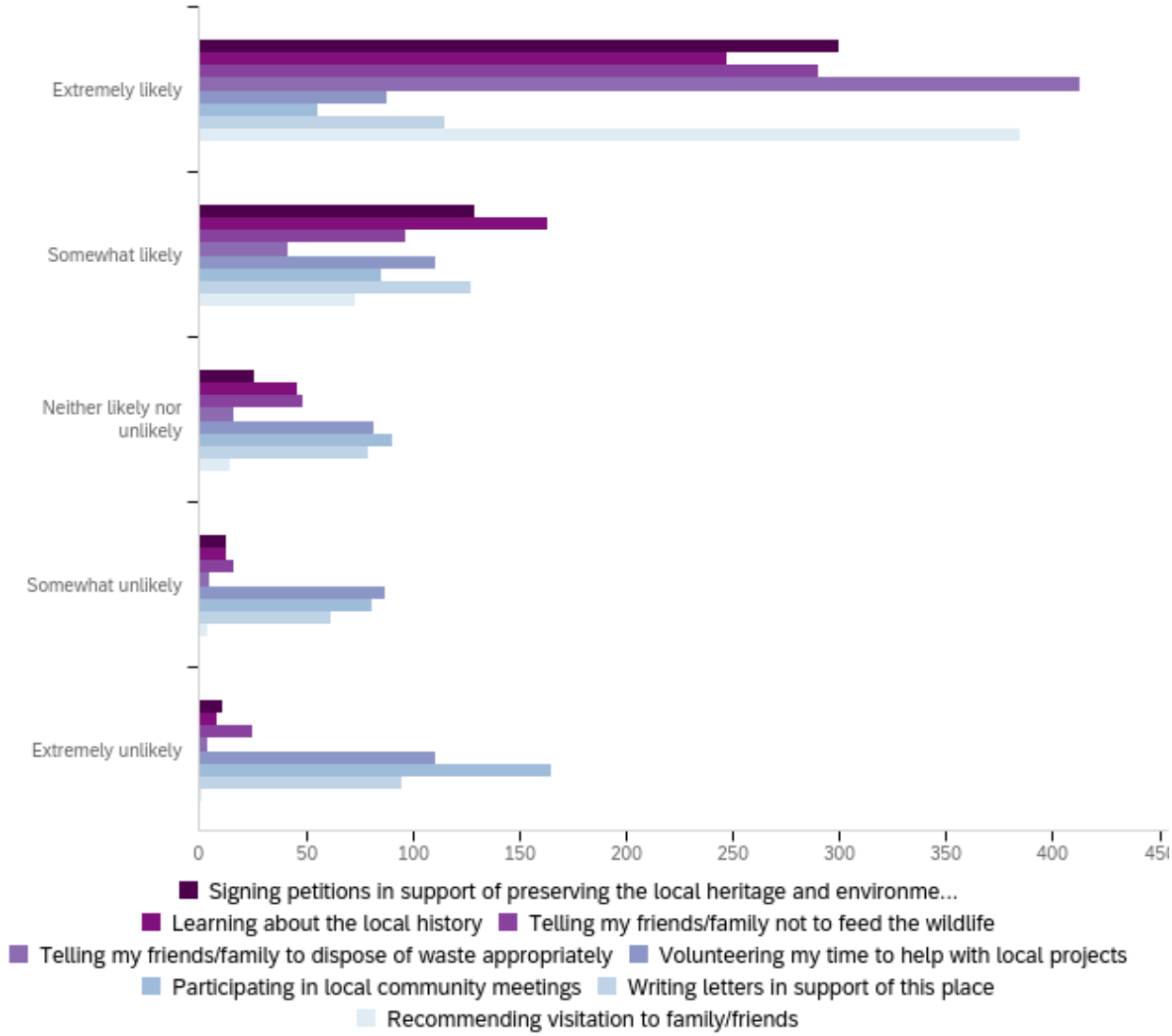

Figure C-43 Graph of which behavioural factors visitors to all six selected sites are likely to undertake.

Appendix D – Factors Influencing Visitors' Decisions to Travel

Table D-1 Factors visitors to the South Australian Maritime Museum feel are important for their travel and holiday plans.

		Count	Column N %	95% Lower CL N %	95% Upper CL N %	Mean	95% Lower CL Mean	95% Upper CL for Mean
Friends and family	Not at all important	5	3.9%	1.49%	8.29%			
	Slightly important	5	3.9%	1.49%	8.29%			
	Moderately important	16	12.4%	7.56%	18.91%			
	Very important	44	34.1%	26.35%	42.57%			
	Extremely important	59	45.7%	37.31%	54.35%			
	Total	129	100.0%	.	.	4.14	3.96	4.32
Heritage (museums, trails, experiences, etc.)	Not at all important	0	0.0%	.	.			
	Slightly important	1	0.8%	0.08%	3.57%			
	Moderately important	22	17.1%	11.33%	24.24%			
	Very important	51	39.5%	31.41%	48.13%			
	Extremely important	55	42.6%	34.34%	51.25%			
	Total	129	100.0%	.	.	4.24	4.11	4.37
Entertainment (movies, theatre, sport, etc.)	Not at all important	11	8.5%	4.62%	14.27%			
	Slightly important	24	18.6%	12.62%	25.97%			
	Moderately important	55	42.6%	34.34%	51.25%			
	Very important	23	17.8%	11.97%	25.11%			
	Extremely important	16	12.4%	7.56%	18.91%			
	Total	129	100.0%	.	.	3.07	2.88	3.26
Shopping (shops, malls, markets, etc.)	Not at all important	27	20.9%	14.60%	28.55%			
	Slightly important	29	22.5%	15.94%	30.24%			
	Moderately important	46	35.7%	27.78%	44.17%			
	Very important	20	15.5%	10.05%	22.48%			
	Extremely important	7	5.4%	2.46%	10.36%			
	Total	129	100.0%	.	.	2.62	2.42	2.82
Hospitality (hotels, bars, restaurants, cafes, etc.)	Not at all important	2	1.6%	0.32%	4.88%			
	Slightly important	16	12.4%	7.56%	18.91%			
	Moderately important	48	37.2%	29.23%	45.76%			
	Very important	44	34.1%	26.35%	42.57%			
	Extremely important	19	14.7%	9.42%	21.60%			
	Total	129	100.0%	.	.	3.48	3.32	3.65
Nature (parks, beaches, wildlife, etc.)	Not at all important	2	1.6%	0.32%	4.88%			
	Slightly important	1	0.8%	0.08%	3.57%			
	Moderately important	14	10.9%	6.36%	17.08%			
	Very important	54	41.9%	33.61%	50.48%			
	Extremely important	58	45.0%	36.57%	53.58%			
	Total	129	100.0%	.	.	4.28	4.14	4.42

Table D-2 Factors visitors to Garden Island feel are important for their travel and holiday plans.

		Count	Column N %	95% Lower CL N %	95% Upper CL N %	Mean	95% Lower CL Mean	95% Upper CL for Mean
Friends and family	Not at all important	0	0.0%	.	.			
	Slightly important	1	2.4%	0.26%	10.84%			
	Moderately important	10	24.4%	13.29%	38.97%			
	Very important	8	19.5%	9.68%	33.47%			
	Extremely important	22	53.7%	38.58%	68.24%			
	Total	41	100.0%	.	.	4.24	3.95	4.53
Heritage (museums, trails, experiences, etc.)	Not at all important	0	0.0%	.	.			
	Slightly important	3	7.3%	2.10%	18.26%			
	Moderately important	9	22.0%	11.45%	36.25%			
	Very important	18	43.9%	29.56%	59.07%			
	Extremely important	11	26.8%	15.17%	41.63%			
	Total	41	100.0%	.	.	3.90	3.62	4.18
Entertainment (movies, theatre, sport, etc.)	Not at all important	3	7.3%	2.10%	18.26%			
	Slightly important	9	22.0%	11.45%	36.25%			
	Moderately important	17	41.5%	27.39%	56.70%			
	Very important	11	26.8%	15.17%	41.63%			
	Extremely important	1	2.4%	0.26%	10.84%			
	Total	41	100.0%	.	.	2.95	2.65	3.25
Shopping (shops, malls, markets, etc.)	Not at all important	21	51.2%	36.28%	66.00%			
	Slightly important	4	9.8%	3.38%	21.55%			
	Moderately important	10	24.4%	13.29%	38.97%			
	Very important	6	14.6%	6.35%	27.70%			
	Extremely important	0	0.0%	.	.			
	Total	41	100.0%	.	.	2.02	1.65	2.39
Hospitality (hotels, bars, restaurants, cafes, etc.)	Not at all important	2	4.9%	1.03%	14.74%			
	Slightly important	6	14.6%	6.35%	27.70%			
	Moderately important	17	41.5%	27.39%	56.70%			
	Very important	12	29.3%	17.10%	44.25%			
	Extremely important	4	9.8%	3.38%	21.55%			
	Total	41	100.0%	.	.	3.24	2.93	3.56
Nature (parks, beaches, wildlife, etc.)	Not at all important	0	0.0%	.	.			
	Slightly important	2	4.9%	1.03%	14.74%			
	Moderately important	1	2.4%	0.26%	10.84%			
	Very important	17	41.5%	27.39%	56.70%			
	Extremely important	21	51.2%	36.28%	66.00%			
	Total	41	100.0%	.	.	4.39	4.15	4.63

Table D-3 Factors visitors to the Clipper Ship feel are important for their travel and holiday plans.

		Count	Column N %	95% Lower CL N %	95% Upper CL N %	Mean	95% Lower CL Mean	95% Upper CL for Mean
Friends and family	Not at all important	2	3.6%	0.76%	11.16%			
	Slightly important	4	7.3%	2.50%	16.37%			
	Moderately important	8	14.5%	7.12%	25.58%			
	Very important	21	38.2%	26.21%	51.36%			
	Extremely important	20	36.4%	24.61%	49.51%			
	Total	55	100.0%	.	.	3.96	3.67	4.25
Heritage (museums, trails, experiences, etc.)	Not at all important	0	0.0%	.	.			
	Slightly important	0	0.0%	.	.			
	Moderately important	6	10.9%	4.68%	21.11%			
	Very important	24	43.6%	31.13%	56.79%			
	Extremely important	25	45.5%	32.81%	58.56%			
	Total	55	100.0%	.	.	4.35	4.16	4.53
Entertainment (movies, theatre, sport, etc.)	Not at all important	4	7.3%	2.50%	16.37%			
	Slightly important	14	25.5%	15.40%	38.01%			
	Moderately important	18	32.7%	21.46%	45.76%			
	Very important	15	27.3%	16.88%	39.99%			
	Extremely important	4	7.3%	2.50%	16.37%			
	Total	55	100.0%	.	.	3.02	2.73	3.31
Shopping (shops, malls, markets, etc.)	Not at all important	9	16.4%	8.42%	27.74%			
	Slightly important	15	27.3%	16.88%	39.99%			
	Moderately important	21	38.2%	26.21%	51.36%			
	Very important	9	16.4%	8.42%	27.74%			
	Extremely important	1	1.8%	0.20%	8.18%			
	Total	55	100.0%	.	.	2.60	2.33	2.87
Hospitality (hotels, bars, restaurants, cafes, etc.)	Not at all important	0	0.0%	.	.			
	Slightly important	4	7.3%	2.50%	16.37%			
	Moderately important	17	30.9%	19.91%	43.86%			
	Very important	25	45.5%	32.81%	58.56%			
	Extremely important	9	16.4%	8.42%	27.74%			
	Total	55	100.0%	.	.	3.71	3.48	3.93
Nature (parks, beaches, wildlife, etc.)	Not at all important	0	0.0%	.	.			
	Slightly important	2	3.6%	0.76%	11.16%			
	Moderately important	5	9.1%	3.55%	18.78%			
	Very important	21	38.2%	26.21%	51.36%			
	Extremely important	27	49.1%	36.21%	62.06%			
	Total	55	100.0%	.	.	4.33	4.11	4.54

Table D-4 Factors visitors to Port Willunga feel are important for their travel and holiday plans.

		Count	Column N %	95% Lower CL N %	95% Upper CL N %	Mean	95% Lower CL Mean	95% Upper CL for Mean
Friends and family	Not at all important	4	3.4%	1.15%	7.86%			
	Slightly important	4	3.4%	1.15%	7.86%			
	Moderately important	13	11.0%	6.32%	17.60%			
	Very important	28	23.7%	16.75%	31.98%			
	Extremely important	69	58.5%	49.47%	67.07%			
	Total	118	100.0%	.	.	4.31	4.12	4.49
Heritage (museums, trails, experiences, etc.)	Not at all important	2	1.7%	0.35%	5.33%			
	Slightly important	12	10.2%	5.68%	16.58%			
	Moderately important	38	32.2%	24.28%	40.99%			
	Very important	44	37.3%	28.96%	46.24%			
	Extremely important	22	18.6%	12.42%	26.38%			
	Total	118	100.0%	.	.	3.61	3.43	3.79
Entertainment (movies, theatre, sport, etc.)	Not at all important	18	15.3%	9.64%	22.55%			
	Slightly important	31	26.3%	18.97%	34.72%			
	Moderately important	39	33.1%	25.05%	41.87%			
	Very important	23	19.5%	13.13%	27.33%			
	Extremely important	7	5.9%	2.69%	11.29%			
	Total	118	100.0%	.	.	2.75	2.54	2.95
Shopping (shops, malls, markets, etc.)	Not at all important	30	25.4%	18.23%	33.81%			
	Slightly important	33	28.0%	20.47%	36.53%			
	Moderately important	29	24.6%	17.49%	32.90%			
	Very important	19	16.1%	10.33%	23.52%			
	Extremely important	7	5.9%	2.69%	11.29%			
	Total	118	100.0%	.	.	2.49	2.27	2.71
Hospitality (hotels, bars, restaurants, cafes, etc.)	Not at all important	7	5.9%	2.69%	11.29%			
	Slightly important	10	8.5%	4.44%	14.51%			
	Moderately important	34	28.8%	21.23%	37.42%			
	Very important	46	39.0%	30.54%	47.96%			
	Extremely important	21	17.8%	11.72%	25.43%			
	Total	118	100.0%	.	.	3.54	3.35	3.74
Nature (parks, beaches, wildlife, etc.)	Not at all important	0	0.0%	.	.			
	Slightly important	0	0.0%	.	.			
	Moderately important	4	3.4%	1.15%	7.86%			
	Very important	45	38.1%	29.74%	47.10%			
	Extremely important	69	58.5%	49.47%	67.07%			
	Total	118	100.0%	.	.	4.55	4.45	4.65

Table D-5 Factors visitors to ex-HMAS Hobart feel are important for their travel and holiday plans.

		Count	Column N %	95% Lower CL N %	95% Upper CL N %	Mean	95% Lower CL Mean	95% Upper CL for Mean
Friends and family	Not at all important	1	4.5%	0.49%	19.34%			
	Slightly important	1	4.5%	0.49%	19.34%			
	Moderately important	7	31.8%	15.51%	52.57%			
	Very important	8	36.4%	18.93%	57.13%			
	Extremely important	5	22.7%	9.24%	42.86%			
	Total	22	100.0%	.	.	3.68	3.22	4.14
Heritage (museums, trails, experiences, etc.)	Not at all important	0	0.0%	.	.			
	Slightly important	3	13.6%	4.00%	32.09%			
	Moderately important	7	31.8%	15.51%	52.57%			
	Very important	9	40.9%	22.53%	61.51%			
	Extremely important	3	13.6%	4.00%	32.09%			
	Total	22	100.0%	.	.	3.55	3.14	3.95
Entertainment (movies, theatre, sport, etc.)	Not at all important	5	22.7%	9.24%	42.86%			
	Slightly important	3	13.6%	4.00%	32.09%			
	Moderately important	11	50.0%	30.20%	69.80%			
	Very important	2	9.1%	1.94%	26.09%			
	Extremely important	1	4.5%	0.49%	19.34%			
	Total	22	100.0%	.	.	2.59	2.10	3.08
Shopping (shops, malls, markets, etc.)	Not at all important	9	40.9%	22.53%	61.51%			
	Slightly important	7	31.8%	15.51%	52.57%			
	Moderately important	4	18.2%	6.47%	37.64%			
	Very important	2	9.1%	1.94%	26.09%			
	Extremely important	0	0.0%	.	.			
	Total	22	100.0%	.	.	1.95	1.51	2.40
Hospitality (hotels, bars, restaurants, cafes, etc.)	Not at all important	2	9.1%	1.94%	26.09%			
	Slightly important	3	13.6%	4.00%	32.09%			
	Moderately important	10	45.5%	26.28%	65.74%			
	Very important	6	27.3%	12.27%	47.82%			
	Extremely important	1	4.5%	0.49%	19.34%			
	Total	22	100.0%	.	.	3.05	2.60	3.49
Nature (parks, beaches, wildlife, etc.)	Not at all important	0	0.0%	.	.			
	Slightly important	1	4.5%	0.49%	19.34%			
	Moderately important	4	18.2%	6.47%	37.64%			
	Very important	7	31.8%	15.51%	52.57%			
	Extremely important	10	45.5%	26.28%	65.74%			
	Total	22	100.0%	.	.	4.18	3.78	4.58

Table D-6 Factors visitors to Rapid Bay feel are important for their travel and holiday plans.

		Count	Column N %	95% Lower CL N %	95% Upper CL N %	Mean	95% Lower CL Mean	95% Upper CL for Mean
Friends and family	Not at all important	2	1.5%	0.32%	4.81%			
	Slightly important	9	6.9%	3.45%	12.16%			
	Moderately important	20	15.3%	9.89%	22.16%			
	Very important	40	30.5%	23.14%	38.78%			
	Extremely important	60	45.8%	37.44%	54.35%			
	Total	131	100.0%	.	.	4.12	3.95	4.30
Heritage (museums, trails, experiences, etc.)	Not at all important	12	9.2%	5.11%	14.99%			
	Slightly important	15	11.5%	6.85%	17.73%			
	Moderately important	47	35.9%	28.04%	44.33%			
	Very important	39	29.8%	22.45%	37.98%			
	Extremely important	18	13.7%	8.66%	20.40%			
	Total	131	100.0%	.	.	3.27	3.08	3.47
Entertainment (movies, theatre, sport, etc.)	Not at all important	22	16.8%	11.15%	23.89%			
	Slightly important	32	24.4%	17.68%	32.29%			
	Moderately important	45	34.4%	26.63%	42.75%			
	Very important	25	19.1%	13.07%	26.45%			
	Extremely important	7	5.3%	2.42%	10.20%			
	Total	131	100.0%	.	.	2.72	2.52	2.91
Shopping (shops, malls, markets, etc.)	Not at all important	54	41.2%	33.06%	49.77%			
	Slightly important	36	27.5%	20.39%	35.56%			
	Moderately important	31	23.7%	17.01%	31.46%			
	Very important	7	5.3%	2.42%	10.20%			
	Extremely important	3	2.3%	0.65%	5.98%			
	Total	131	100.0%	.	.	2.00	1.82	2.18
Hospitality (hotels, bars, restaurants, cafes, etc.)	Not at all important	9	6.9%	3.45%	12.16%			
	Slightly important	13	9.9%	5.68%	15.91%			
	Moderately important	48	36.6%	28.75%	45.11%			
	Very important	50	38.2%	30.18%	46.67%			
	Extremely important	11	8.4%	4.54%	14.06%			
	Total	131	100.0%	.	.	3.31	3.14	3.49
Nature (parks, beaches, wildlife, etc.)	Not at all important	1	0.8%	0.08%	3.51%			
	Slightly important	0	0.0%	.	.			
	Moderately important	9	6.9%	3.45%	12.16%			
	Very important	34	26.0%	19.03%	33.93%			
	Extremely important	87	66.4%	58.04%	74.07%			
	Total	131	100.0%	.	.	4.57	4.45	4.69

Table D-7 Factors visitors to all selected sites feel are important for their travel and holiday plans.

		Count	Column N %	95% Lower CL N %	95% Upper CL N %	Mean	95% Lower CL Mean	95% Upper CL for Mean
Friends and family	Not at all important	14	2.8%	1.63%	4.57%			
	Slightly important	24	4.8%	3.21%	7.00%			
	Moderately important	74	14.9%	11.99%	18.26%			
	Very important	149	30.0%	26.13%	34.18%			
	Extremely important	235	47.4%	43.01%	51.78%			
	Total	496	100.0%	.	.	4.14	4.05	4.23
Heritage (museums, trails, experiences, etc.)	Not at all important	14	2.8%	1.63%	4.57%			
	Slightly important	34	6.9%	4.88%	9.33%			
	Moderately important	129	26.0%	22.29%	30.00%			
	Very important	185	37.3%	33.13%	41.62%			
	Extremely important	134	27.0%	23.25%	31.05%			
	Total	496	100.0%	.	.	3.79	3.70	3.88
Entertainment (movies, theatre, sport, etc.)	Not at all important	63	12.7%	9.99%	15.85%			
	Slightly important	113	22.8%	19.26%	26.62%			
	Moderately important	185	37.3%	33.13%	41.62%			
	Very important	99	20.0%	16.62%	23.65%			
	Extremely important	36	7.3%	5.22%	9.79%			
	Total	496	100.0%	.	.	2.86	2.77	2.96
Shopping (shops, malls, markets, etc.)	Not at all important	150	30.2%	26.32%	34.39%			
	Slightly important	124	25.0%	21.34%	28.95%			
	Moderately important	141	28.4%	24.59%	32.51%			
	Very important	63	12.7%	9.99%	15.85%			
	Extremely important	18	3.6%	2.24%	5.55%			
	Total	496	100.0%	.	.	2.34	2.24	2.45
Hospitality (hotels, bars, restaurants, cafes, etc.)	Not at all important	22	4.4%	2.88%	6.52%			
	Slightly important	52	10.5%	8.02%	13.41%			
	Moderately important	174	35.1%	30.98%	39.36%			
	Very important	183	36.9%	32.73%	41.21%			
	Extremely important	65	13.1%	10.35%	16.29%			
	Total	496	100.0%	.	.	3.44	3.35	3.53
Nature (parks, beaches, wildlife, etc.)	Not at all important	3	0.6%	0.17%	1.61%			
	Slightly important	6	1.2%	0.51%	2.48%			
	Moderately important	37	7.5%	5.39%	10.02%			
	Very important	178	35.9%	31.76%	40.18%			
	Extremely important	272	54.8%	50.44%	59.18%			
	Total	496	100.0%	.	.	4.43	4.37	4.50

Appendix E – Economic Calculations

A range of economic calculations were used to determine the economic expenditure at the selected sites. For the initial ‘total annual direct expenditure’ equation, several other calculations had to be made.

Total annual direct visitor expenditure	=	*Average daily visitor expenditure per person per day*	*x*	*Average length of stay (days)*	*x*	*Annual number of visitors per year (collected from survey data)*

The first was to calculate the averages across all economic categories (accommodation, travel, food, activities, other, total spend, number of adults, number of children, total people, and days spend on site). This was done, by the following equation’s (complete for each category individually, with accommodation given as an example):

Total spend on accommodation	=	*Sum of all reported spends on accommodation*

Average spend on accommodation	=	*Total spend on accommodation*	/	*Number of cases (individual responses)*

Average spend on accommodation per person	=	*Average spend on accommodation*	/	*Average number of people*

The following table details the results for the above equations for each as well as collectively for all six selected sites. Therefore, to calculate the average spend per person per day on site uses the following equation:

Average spend per person per day	=	Average spend per person	/	Average number of days	/	Average number of people

To calculate the attribution factor for each site the all survey responses were reviewed, specifically the questions, what was your main reason for visiting this site?, what activities did you undertake here?, and which of the following factors do you consider important for your travel or holiday plans? The responses to these questions provided the attribution factors motivational, activities, and importance attributional factors respectively.

Responses to these were categorised into the same 'importance factors' of Friends and family, Heritage, Entertainment, Shopping, Nature, and Other. It is important to note that several responses fit into multiple categories, so were tagged within all applicable categories. For example, one motivational response from the South Australian Maritime Museum identified their principal motivation as wanting to 'involve the grandkids in their local heritage'. Consequently, this response was categorised into both the friends and family and heritage motivations. Furthermore, with responses pertaining to undertaking a physical activity – swimming, scuba diving, kayaking, walking was categorised into the 'Other' factor. When responses provided further details such as 'We own kayaks and like to paddle in interesting locations. We wanted to see the shipwrecks and dolphins.' Were placed into the 'other', 'nature' and 'heritage' categories.

Once all responses had been categorised and counted, the percentage was calculated with the following equation;

Motivational factor (%) = Number of responses / Total number of responses

This was repeated for each attribution factor (motivation, activities, and importance). From this the attribution factor was calculated:

Attribution Factor (%) = SUM (motivational, activities, importance factors) / 3

Once the attribution factor had been calculated the total annual attributable visitor expenditure could be calculated.

$$\textit{Total annual attributable visitor expenditure} = \textit{Total annual direct visitor expenditure} \; X \; \textit{Attribution factor (\%)}$$

Appendix F – Frequency Statistics on the Place Attachment and Behavioural Intentions questions

Table F-1 Descriptive and frequency statistics for place attachment questions at the South Australian Maritime Museum.

		Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
PD1 - For the recreational activities I enjoy most, the settings offered here are the best	Strongly disagree	5			
	Somewhat disagree	6			
	Neither agree nor disagree	26			
	Somewhat agree	61			
	Strongly agree	28			
	Total	126	3.80	3.63	3.97
PD2 - For the type of recreation activities I enjoy, I would not substitute this place for any other	Strongly disagree	9			
	Somewhat disagree	19			
	Neither agree nor disagree	36			
	Somewhat agree	41			
	Strongly agree	21			
	Total	126	3.37	3.16	3.57
PD3 - I enjoy visiting this location more than any other historical place	Strongly disagree	14			
	Somewhat disagree	17			
	Neither agree nor disagree	41			
	Somewhat agree	43			
	Strongly agree	11			
	Total	126	3.16	2.96	3.36
PA1 - I identify strongly with this place	Strongly disagree	22			
	Somewhat disagree	19			
	Neither agree nor disagree	27			
	Somewhat agree	33			
	Strongly agree	25			
	Total	126	3.16	2.92	3.40
PA2 - I feel this place is part of who I am	Strongly disagree	26			
	Somewhat disagree	17			
	Neither agree nor disagree	28			
	Somewhat agree	32			
	Strongly agree	23			
	Total	126	3.07	2.82	3.32
PA3 - Visiting this place says a lot about who I am	Strongly disagree	16			
	Somewhat disagree	13			
	Neither agree nor disagree	26			
	Somewhat agree	50			
	Strongly agree	21			
	Total	126	3.37	3.15	3.59
PI1 - I am connected to this place	Strongly disagree	19			
	Somewhat disagree	19			

	Neither agree nor disagree	25			
	Somewhat agree	40			
	Strongly agree	23			
	Total	126	3.23	3.00	3.46
PI2 - I feel a strong sense of belonging to this place	Strongly disagree	19			
	Somewhat disagree	20			
	Neither agree nor disagree	31			
	Somewhat agree	34			
	Strongly agree	22			
	Total	126	3.16	2.93	3.39
PI3 - This location means a lot to me	Strongly disagree	17			
	Somewhat disagree	15			
	Neither agree nor disagree	26			
	Somewhat agree	39			
	Strongly agree	29			
	Total	126	3.38	3.15	3.61
PSB1 - Many of my friends and family visit this place	Strongly disagree	24			
	Somewhat disagree	12			
	Neither agree nor disagree	35			
	Somewhat agree	37			
	Strongly agree	18			
	Total	126	3.10	2.87	3.33
PSB2 - The relationships developed by visiting this location strongly connect me to this place	Strongly disagree	10			
	Somewhat disagree	14			
	Neither agree nor disagree	28			
	Somewhat agree	40			
	Strongly agree	34			
	Total	126	3.59	3.37	3.80
PSB3 - This place allows me to connect with and get close to my friends and family	Strongly disagree	13			
	Somewhat disagree	10			
	Neither agree nor disagree	35			
	Somewhat agree	37			
	Strongly agree	31			
	Total	126	3.50	3.28	3.72

Table F-2 Descriptive and frequency statistics for behavioural intentions at the South Australian Maritime Museum.

		Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
L1 - Signing petitions in support of preserving the	Extremely unlikely	6			
	Somewhat unlikely	4			

local heritage and environment	Neither likely nor unlikely	10			
	Somewhat likely	33			
	Extremely likely	73			
	Total	126	4.29	4.11	4.48
L3 - Telling my friends/family not to feed the wildlife	Extremely unlikely	11			
	Somewhat unlikely	8			
	Neither likely nor unlikely	23			
	Somewhat likely	26			
	Extremely likely	58			
	Total	126	3.89	3.66	4.12
L4 - Telling my friends/family to dispose of waste appropriately	Extremely unlikely	2			
	Somewhat unlikely	3			
	Neither likely nor unlikely	8			
	Somewhat likely	17			
	Extremely likely	96			
	Total	126	4.60	4.46	4.75
L5 - Recommending visitation to family/friends	Extremely unlikely	0			
	Somewhat unlikely	2			
	Neither likely nor unlikely	5			
	Somewhat likely	30			
	Extremely likely	89			
	Total	126	4.63	4.52	4.75
L2 - Learning about the local history	Extremely unlikely	2			
	Somewhat unlikely	1			
	Neither likely nor unlikely	11			
	Somewhat likely	44			
	Extremely likely	68			
	Total	126	4.39	4.25	4.53
H1 - Volunteering my time to help with local projects	Extremely unlikely	38			
	Somewhat unlikely	34			
	Neither likely nor unlikely	20			
	Somewhat likely	25			
	Extremely likely	9			
	Total	126	2.47	2.24	2.70
H2 - Participating in local community meetings	Extremely unlikely	49			
	Somewhat unlikely	30			
	Neither likely nor unlikely	23			
	Somewhat likely	16			
	Extremely likely	8			
	Total	126	2.24	2.01	2.46
H3 - Writing letters in support of this place	Extremely unlikely	30			
	Somewhat unlikely	23			

	Neither likely nor unlikely	23			
	Somewhat likely	30			
	Extremely likely	20			
	Total	126	2.90	2.65	3.15

Table F-3 Descriptive and frequency statistics for place attachment questions at the Garden Island Shipwreck Graveyard.

		Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
PD1 - For the recreational activities I enjoy most, the settings offered here are the best	Strongly disagree	0			
	Somewhat disagree	1			
	Neither agree nor disagree	7			
	Somewhat agree	16			
	Strongly agree	16			
	Total	40	4.18	3.92	4.43
PD2 - For the type of recreation activities I enjoy, I would not substitute this place for any other	Strongly disagree	1			
	Somewhat disagree	2			
	Neither agree nor disagree	9			
	Somewhat agree	18			
	Strongly agree	10			
	Total	40	3.85	3.55	4.15
PD3 - I enjoy visiting this location more than any other historical place	Strongly disagree	5			
	Somewhat disagree	7			
	Neither agree nor disagree	10			
	Somewhat agree	12			
	Strongly agree	6			
	Total	40	3.18	2.77	3.58
PA1 - I identify strongly with this place	Strongly disagree	4			
	Somewhat disagree	9			
	Neither agree nor disagree	10			
	Somewhat agree	8			
	Strongly agree	9			
	Total	40	3.23	2.81	3.64
PA2 - I feel this place is part of who I am	Strongly disagree	7			
	Somewhat disagree	8			
	Neither agree nor disagree	14			
	Somewhat agree	4			
	Strongly agree	7			
	Total	40	2.90	2.48	3.32
PA3 - Visiting this place says a lot about who I am	Strongly disagree	4			
	Somewhat disagree	2			

	Neither agree nor disagree	14			
	Somewhat agree	10			
	Strongly agree	10			
	Total	40	3.50	3.11	3.89
PI1 - I am connected to this place	Strongly disagree	5			
	Somewhat disagree	3			
	Neither agree nor disagree	11			
	Somewhat agree	11			
	Strongly agree	10			
	Total	40	3.45	3.03	3.87
PI2 - I feel a strong sense of belonging to this place	Strongly disagree	5			
	Somewhat disagree	3			
	Neither agree nor disagree	11			
	Somewhat agree	12			
	Strongly agree	9			
	Total	40	3.43	3.02	3.83
PI3 - This location means a lot to me	Strongly disagree	2			
	Somewhat disagree	6			
	Neither agree nor disagree	9			
	Somewhat agree	12			
	Strongly agree	11			
	Total	40	3.60	3.22	3.98
PSB1 - Many of my friends and family visit this place	Strongly disagree	10			
	Somewhat disagree	6			
	Neither agree nor disagree	8			
	Somewhat agree	8			
	Strongly agree	8			
	Total	40	2.95	2.48	3.42
PSB2 - The relationships developed by visiting this location strongly connect me to this place	Strongly disagree	2			
	Somewhat disagree	4			
	Neither agree nor disagree	10			
	Somewhat agree	10			
	Strongly agree	14			
	Total	40	3.75	3.37	4.13
PSB3 - This place allows me to connect with and get close to my friends and family	Strongly disagree	2			
	Somewhat disagree	2			
	Neither agree nor disagree	7			
	Somewhat agree	12			
	Strongly agree	17			
	Total	40	4.00	3.64	4.36

Table F-4 Descriptive and frequency statistics for behavioural intentions at the Garden Island Shipwreck Graveyard.

		Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
L1 - Signing petitions in support of preserving the local heritage and environment	Extremely unlikely	0			
	Somewhat unlikely	2			
	Neither likely nor unlikely	1			
	Somewhat likely	9			
	Extremely likely	28			
	Total	40	4.57	4.33	4.82
L3 - Telling my friends/family not to feed the wildlife	Extremely unlikely	3			
	Somewhat unlikely	1			
	Neither likely nor unlikely	2			
	Somewhat likely	4			
	Extremely likely	30			
	Total	40	4.43	4.04	4.81
L4 - Telling my friends/family to dispose of waste appropriately	Extremely unlikely	0			
	Somewhat unlikely	0			
	Neither likely nor unlikely	0			
	Somewhat likely	5			
	Extremely likely	35			
	Total	40	4.88	4.77	4.98
L5 - Recommending visitation to family/friends	Extremely unlikely	0			
	Somewhat unlikely	0			
	Neither likely nor unlikely	0			
	Somewhat likely	6			
	Extremely likely	34			
	Total	40	4.85	4.73	4.97
L2 - Learning about the local history	Extremely unlikely	1			
	Somewhat unlikely	2			
	Neither likely nor unlikely	3			
	Somewhat likely	13			
	Extremely likely	21			
	Total	40	4.27	3.96	4.59
H1 - Volunteering my time to help with local projects	Extremely unlikely	10			
	Somewhat unlikely	5			
	Neither likely nor unlikely	8			
	Somewhat likely	8			
	Extremely likely	9			
	Total	40	3.03	2.54	3.51
H2 - Participating in local community meetings	Extremely unlikely	14			
	Somewhat unlikely	5			

	Neither likely nor unlikely	8			
	Somewhat likely	4			
	Extremely likely	9			
	Total	40	2.72	2.22	3.23
H3 - Writing letters in support of this place	Extremely unlikely	10			
	Somewhat unlikely	4			
	Neither likely nor unlikely	6			
	Somewhat likely	8			
	Extremely likely	12			
	Total	40	3.20	2.69	3.71

Table F-5 Descriptive and frequency statistics for place attachment questions at the Clipper Ship City of Adelaide.

		Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
PD1 - For the recreational activities I enjoy most, the settings offered here are the best	Strongly disagree	1			
	Somewhat disagree	5			
	Neither agree nor disagree	8			
	Somewhat agree	26			
	Strongly agree	14			
	Total	54	3.87	3.61	4.14
PD2 - For the type of recreation activities I enjoy, I would not substitute this place for any other	Strongly disagree	4			
	Somewhat disagree	4			
	Neither agree nor disagree	15			
	Somewhat agree	17			
	Strongly agree	14			
	Total	54	3.61	3.29	3.93
PD3 - I enjoy visiting this location more than any other historical place	Strongly disagree	3			
	Somewhat disagree	6			
	Neither agree nor disagree	20			
	Somewhat agree	16			
	Strongly agree	9			
	Total	54	3.41	3.11	3.70
PA1 - I identify strongly with this place	Strongly disagree	3			
	Somewhat disagree	7			
	Neither agree nor disagree	8			
	Somewhat agree	18			
	Strongly agree	18			
	Total	54	3.76	3.43	4.09
	Strongly disagree	4			

PA2 - I feel this place is part of who I am	Somewhat disagree	7			
	Neither agree nor disagree	13			
	Somewhat agree	14			
	Strongly agree	16			
	Total	54	3.57	3.23	3.92
PA3 - Visiting this place says a lot about who I am	Strongly disagree	4			
	Somewhat disagree	5			
	Neither agree nor disagree	9			
	Somewhat agree	20			
	Strongly agree	16			
	Total	54	3.72	3.39	4.05
PI1 - I am connected to this place	Strongly disagree	4			
	Somewhat disagree	7			
	Neither agree nor disagree	11			
	Somewhat agree	16			
	Strongly agree	16			
	Total	54	3.61	3.27	3.95
PI2 - I feel a strong sense of belonging to this place	Strongly disagree	4			
	Somewhat disagree	10			
	Neither agree nor disagree	10			
	Somewhat agree	12			
	Strongly agree	18			
	Total	54	3.56	3.19	3.92
PI3 - This location means a lot to me	Strongly disagree	4			
	Somewhat disagree	6			
	Neither agree nor disagree	11			
	Somewhat agree	13			
	Strongly agree	20			
	Total	54	3.72	3.37	4.07
PSB1 - Many of my friends and family visit this place	Strongly disagree	8			
	Somewhat disagree	11			
	Neither agree nor disagree	16			
	Somewhat agree	9			
	Strongly agree	10			
	Total	54	3.04	2.68	3.40
PSB2 - The relationships developed by visiting this location strongly connect me to this place	Strongly disagree	2			
	Somewhat disagree	9			
	Neither agree nor disagree	15			
	Somewhat agree	10			
	Strongly agree	18			
	Total	54	3.61	3.28	3.94
PSB3 - This place allows me to connect with and get	Strongly disagree	8			
	Somewhat disagree	8			

close to my friends and family	Neither agree nor disagree	15			
	Somewhat agree	13			
	Strongly agree	10			
	Total	54	3.17	2.81	3.53

Table F-6 Descriptive and frequency statistics for behavioural intentions at the Clipper Ship City of Adelaide.

		Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
L1 - Signing petitions in support of preserving the local heritage and environment	Extremely unlikely	0			
	Somewhat unlikely	4			
	Neither likely nor unlikely	7			
	Somewhat likely	14			
	Extremely likely	29			
	Total	54	4.26	4.00	4.52
L3 - Telling my friends/family not to feed the wildlife	Extremely unlikely	3			
	Somewhat unlikely	0			
	Neither likely nor unlikely	8			
	Somewhat likely	11			
	Extremely likely	32			
	Total	54	4.28	3.98	4.57
L4 - Telling my friends/family to dispose of waste appropriately	Extremely unlikely	2			
	Somewhat unlikely	1			
	Neither likely nor unlikely	6			
	Somewhat likely	5			
	Extremely likely	40			
	Total	54	4.48	4.20	4.76
L5 - Recommending visitation to family/friends	Extremely unlikely	1			
	Somewhat unlikely	1			
	Neither likely nor unlikely	1			
	Somewhat likely	16			
	Extremely likely	35			
	Total	54	4.54	4.32	4.75
L2 - Learning about the local history	Extremely unlikely	0			
	Somewhat unlikely	1			
	Neither likely nor unlikely	4			
	Somewhat likely	17			
	Extremely likely	32			
	Total	54	4.48	4.28	4.68
H1 - Volunteering my time to help with local projects	Extremely unlikely	5			
	Somewhat unlikely	13			
	Neither likely nor unlikely	8			

	Somewhat likely	10			
	Extremely likely	18			
	Total	54	3.43	3.04	3.81
H2 - Participating in local community meetings	Extremely unlikely	10			
	Somewhat unlikely	8			
	Neither likely nor unlikely	10			
	Somewhat likely	12			
	Extremely likely	14			
	Total	54	3.22	2.82	3.62
H3 - Writing letters in support of this place	Extremely unlikely	7			
	Somewhat unlikely	3			
	Neither likely nor unlikely	10			
	Somewhat likely	15			
	Extremely likely	19			
	Total	54	3.67	3.30	4.04

Table F-7 Descriptive and frequency statistics for place attachment questions at Port Willunga.

		Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
PD1 - For the recreational activities I enjoy most, the settings offered here are the best	Strongly disagree	0			
	Somewhat disagree	1			
	Neither agree nor disagree	11			
	Somewhat agree	30			
	Strongly agree	74			
	Total	116	4.53	4.40	4.66
PD2 - For the type of recreation activities I enjoy, I would not substitute this place for any other	Strongly disagree	3			
	Somewhat disagree	11			
	Neither agree nor disagree	21			
	Somewhat agree	29			
	Strongly agree	52			
	Total	116	4.00	3.79	4.21
PD3 - I enjoy visiting this location more than any other historical place	Strongly disagree	6			
	Somewhat disagree	10			
	Neither agree nor disagree	27			
	Somewhat agree	20			
	Strongly agree	53			
	Total	116	3.90	3.67	4.12
PA1 - I identify strongly with this place	Strongly disagree	6			
	Somewhat disagree	15			
	Neither agree nor disagree	20			
	Somewhat agree	18			

	Strongly agree	57			
	Total	116	3.91	3.67	4.14
PA2 - I feel this place is part of who I am	Strongly disagree	8			
	Somewhat disagree	15			
	Neither agree nor disagree	20			
	Somewhat agree	17			
	Strongly agree	56			
	Total	116	3.84	3.60	4.09
PA3 - Visiting this place says a lot about who I am	Strongly disagree	6			
	Somewhat disagree	8			
	Neither agree nor disagree	16			
	Somewhat agree	28			
	Strongly agree	58			
	Total	116	4.07	3.85	4.29
PI1 - I am connected to this place	Strongly disagree	5			
	Somewhat disagree	8			
	Neither agree nor disagree	18			
	Somewhat agree	19			
	Strongly agree	66			
	Total	116	4.15	3.93	4.36
PI2 - I feel a strong sense of belonging to this place	Strongly disagree	6			
	Somewhat disagree	9			
	Neither agree nor disagree	16			
	Somewhat agree	21			
	Strongly agree	64			
	Total	116	4.10	3.88	4.33
PI3 - This location means a lot to me	Strongly disagree	3			
	Somewhat disagree	12			
	Neither agree nor disagree	11			
	Somewhat agree	21			
	Strongly agree	69			
	Total	116	4.22	4.01	4.43
PSB1 - Many of my friends and family visit this place	Strongly disagree	6			
	Somewhat disagree	8			
	Neither agree nor disagree	12			
	Somewhat agree	25			
	Strongly agree	65			
	Total	116	4.16	3.95	4.38
PSB2 - The relationships developed by visiting this location strongly connect me to this place	Strongly disagree	3			
	Somewhat disagree	8			
	Neither agree nor disagree	11			
	Somewhat agree	20			
	Strongly agree	74			

	Total	116	4.33	4.13	4.52
PSB3 - This place allows me to connect with and get close to my friends and family	Strongly disagree	6			
	Somewhat disagree	2			
	Neither agree nor disagree	14			
	Somewhat agree	24			
	Strongly agree	70			
	Total	116	4.29	4.09	4.49

Table F-8 Descriptive and frequency statistics for behavioural intentions at Port Willunga.

		Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
L1 - Signing petitions in support of preserving the local heritage and environment	Extremely unlikely	2			
	Somewhat unlikely	1			
	Neither likely nor unlikely	5			
	Somewhat likely	31			
	Extremely likely	77			
	Total	116	4.55	4.41	4.69
L3 - Telling my friends/family not to feed the wildlife	Extremely unlikely	4			
	Somewhat unlikely	3			
	Neither likely nor unlikely	9			
	Somewhat likely	19			
	Extremely likely	81			
	Total	116	4.47	4.28	4.65
L4 - Telling my friends/family to dispose of waste appropriately	Extremely unlikely	0			
	Somewhat unlikely	1			
	Neither likely nor unlikely	1			
	Somewhat likely	6			
	Extremely likely	108			
	Total	116	4.91	4.83	4.98
L5 - Recommending visitation to family/friends	Extremely unlikely	0			
	Somewhat unlikely	0			
	Neither likely nor unlikely	3			
	Somewhat likely	6			
	Extremely likely	107			
	Total	116	4.90	4.83	4.97
L2 - Learning about the local history	Extremely unlikely	0			
	Somewhat unlikely	1			
	Neither likely nor unlikely	17			
	Somewhat likely	29			
	Extremely likely	69			
	Total	116	4.43	4.29	4.57

H1 - Volunteering my time to help with local projects	Extremely unlikely	19			
	Somewhat unlikely	15			
	Neither likely nor unlikely	14			
	Somewhat likely	31			
	Extremely likely	37			
	Total	116	3.45	3.18	3.72
H2 - Participating in local community meetings	Extremely unlikely	28			
	Somewhat unlikely	16			
	Neither likely nor unlikely	20			
	Somewhat likely	31			
	Extremely likely	21			
	Total	116	3.01	2.74	3.28
H3 - Writing letters in support of this place	Extremely unlikely	13			
	Somewhat unlikely	12			
	Neither likely nor unlikely	15			
	Somewhat likely	32			
	Extremely likely	44			
	Total	116	3.71	3.46	3.96

Table F-9 Descriptive and frequency statistics for place attachment questions at ex-HMAS Hobart.

		Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
PD1 - For the recreational activities I enjoy most, the settings offered here are the best	Strongly disagree	0			
	Somewhat disagree	1			
	Neither agree nor disagree	2			
	Somewhat agree	9			
	Strongly agree	9			
	Total	21	4.24	3.86	4.62
PD2 - For the type of recreation activities I enjoy, I would not substitute this place for any other	Strongly disagree	1			
	Somewhat disagree	3			
	Neither agree nor disagree	3			
	Somewhat agree	7			
	Strongly agree	7			
	Total	21	3.76	3.21	4.32
PD3 - I enjoy visiting this location more than any other historical place	Strongly disagree	4			
	Somewhat disagree	2			
	Neither agree nor disagree	7			
	Somewhat agree	5			
	Strongly agree	3			
	Total	21	3.05	2.45	3.65
	Strongly disagree	1			

PA1 - I identify strongly with this place	Somewhat disagree	5			
	Neither agree nor disagree	5			
	Somewhat agree	9			
	Strongly agree	1			
	Total	21	3.19	2.72	3.66
PA2 - I feel this place is part of who I am	Strongly disagree	5			
	Somewhat disagree	3			
	Neither agree nor disagree	6			
	Somewhat agree	5			
	Strongly agree	2			
	Total	21	2.81	2.21	3.41
PA3 - Visiting this place says a lot about who I am	Strongly disagree	0			
	Somewhat disagree	3			
	Neither agree nor disagree	7			
	Somewhat agree	8			
	Strongly agree	3			
	Total	21	3.52	3.10	3.95
PI1 - I am connected to this place	Strongly disagree	3			
	Somewhat disagree	4			
	Neither agree nor disagree	5			
	Somewhat agree	8			
	Strongly agree	1			
	Total	21	3.00	2.46	3.54
PI2 - I feel a strong sense of belonging to this place	Strongly disagree	5			
	Somewhat disagree	2			
	Neither agree nor disagree	7			
	Somewhat agree	6			
	Strongly agree	1			
	Total	21	2.81	2.24	3.38
PI3 - This location means a lot to me	Strongly disagree	2			
	Somewhat disagree	1			
	Neither agree nor disagree	7			
	Somewhat agree	9			
	Strongly agree	2			
	Total	21	3.38	2.89	3.87
PSB1 - Many of my friends and family visit this place	Strongly disagree	3			
	Somewhat disagree	4			
	Neither agree nor disagree	6			
	Somewhat agree	6			
	Strongly agree	2			
	Total	21	3.00	2.44	3.56
PSB2 - The relationships developed by visiting this	Strongly disagree	0			
	Somewhat disagree	3			

location strongly connect me to this place	Neither agree nor disagree	7			
	Somewhat agree	8			
	Strongly agree	3			
	Total	21	3.52	3.10	3.95
PSB3 - This place allows me to connect with and get close to my friends and family	Strongly disagree	1			
	Somewhat disagree	0			
	Neither agree nor disagree	7			
	Somewhat agree	11			
	Strongly agree	2			
	Total	21	3.62	3.23	4.01

Table F-10 Descriptive and frequency statistics for behavioural intentions at ex-HMAS Hobart.

		Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
L1 - Signing petitions in support of preserving the local heritage and environment	Extremely unlikely	0			
	Somewhat unlikely	0			
	Neither likely nor unlikely	1			
	Somewhat likely	9			
	Extremely likely	11			
	Total	21	4.48	4.20	4.75
L3 - Telling my friends/family not to feed the wildlife	Extremely unlikely	1			
	Somewhat unlikely	0			
	Neither likely nor unlikely	2			
	Somewhat likely	8			
	Extremely likely	10			
	Total	21	4.24	3.79	4.69
L4 - Telling my friends/family to dispose of waste appropriately	Extremely unlikely	0			
	Somewhat unlikely	0			
	Neither likely nor unlikely	0			
	Somewhat likely	2			
	Extremely likely	19			
	Total	21	4.90	4.77	5.04
L5 - Recommending visitation to family/friends	Extremely unlikely	0			
	Somewhat unlikely	0			
	Neither likely nor unlikely	1			
	Somewhat likely	8			
	Extremely likely	12			
	Total	21	4.52	4.25	4.80
L2 - Learning about the local history	Extremely unlikely	0			
	Somewhat unlikely	1			

	Neither likely nor unlikely	1			
	Somewhat likely	8			
	Extremely likely	11			
	Total	21	4.38	4.01	4.75
H1 - Volunteering my time to help with local projects	Extremely unlikely	2			
	Somewhat unlikely	1			
	Neither likely nor unlikely	7			
	Somewhat likely	8			
	Extremely likely	3			
	Total	21	3.43	2.92	3.94
H2 - Participating in local community meetings	Extremely unlikely	4			
	Somewhat unlikely	3			
	Neither likely nor unlikely	10			
	Somewhat likely	4			
	Extremely likely	0			
	Total	21	2.67	2.20	3.13
H3 - Writing letters in support of this place	Extremely unlikely	4			
	Somewhat unlikely	1			
	Neither likely nor unlikely	4			
	Somewhat likely	8			
	Extremely likely	4			
	Total	21	3.33	2.70	3.97

Table F-11 Descriptive and frequency statistics for place attachment questions at Rapid Bay.

		Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
PD1 - For the recreational activities I enjoy most, the settings offered here are the best	Strongly disagree	1			
	Somewhat disagree	7			
	Neither agree nor disagree	16			
	Somewhat agree	48			
	Strongly agree	56			
	Total	128	4.18	4.02	4.34
PD2 - For the type of recreation activities I enjoy, I would not substitute this place for any other	Strongly disagree	6			
	Somewhat disagree	16			
	Neither agree nor disagree	26			
	Somewhat agree	45			
	Strongly agree	35			
	Total	128	3.68	3.48	3.88
	Strongly disagree	20			
	Somewhat disagree	12			

PD3 - I enjoy visiting this location more than any other historical place	Neither agree nor disagree	37			
	Somewhat agree	36			
	Strongly agree	23			
	Total	128	3.23	3.01	3.46
PA1 - I identify strongly with this place	Strongly disagree	11			
	Somewhat disagree	22			
	Neither agree nor disagree	27			
	Somewhat agree	34			
	Strongly agree	34			
	Total	128	3.45	3.23	3.68
PA2 - I feel this place is part of who I am	Strongly disagree	12			
	Somewhat disagree	23			
	Neither agree nor disagree	32			
	Somewhat agree	30			
	Strongly agree	31			
	Total	128	3.35	3.13	3.58
PA3 - Visiting this place says a lot about who I am	Strongly disagree	10			
	Somewhat disagree	10			
	Neither agree nor disagree	24			
	Somewhat agree	42			
	Strongly agree	42			
	Total	128	3.75	3.54	3.96
PI1 - I am connected to this place	Strongly disagree	11			
	Somewhat disagree	10			
	Neither agree nor disagree	22			
	Somewhat agree	41			
	Strongly agree	44			
	Total	128	3.76	3.54	3.98
PI2 - I feel a strong sense of belonging to this place	Strongly disagree	11			
	Somewhat disagree	10			
	Neither agree nor disagree	29			
	Somewhat agree	36			
	Strongly agree	42			
	Total	128	3.69	3.47	3.91
PI3 - This location means a lot to me	Strongly disagree	9			
	Somewhat disagree	9			
	Neither agree nor disagree	21			
	Somewhat agree	39			
	Strongly agree	50			
	Total	128	3.88	3.66	4.09
PSB1 - Many of my friends and family visit this place	Strongly disagree	21			
	Somewhat disagree	11			
	Neither agree nor disagree	21			

	Somewhat agree	37			
	Strongly agree	38			
	Total	128	3.47	3.22	3.72
PSB2 - The relationships developed by visiting this location strongly connect me to this place	Strongly disagree	6			
	Somewhat disagree	9			
	Neither agree nor disagree	12			
	Somewhat agree	40			
	Strongly agree	61			
	Total	128	4.10	3.90	4.30
PSB3 - This place allows me to connect with and get close to my friends and family	Strongly disagree	4			
	Somewhat disagree	8			
	Neither agree nor disagree	10			
	Somewhat agree	46			
	Strongly agree	60			
	Total	128	4.17	3.99	4.35

Table F-12 Descriptive and frequency statistics for behavioural intentions at Rapid Bay.

		Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
L1 - Signing petitions in support of preserving the local heritage and environment	Extremely unlikely	3			
	Somewhat unlikely	2			
	Neither likely nor unlikely	3			
	Somewhat likely	36			
	Extremely likely	84			
	Total	128	4.53	4.39	4.68
L3 - Telling my friends/family not to feed the wildlife	Extremely unlikely	8			
	Somewhat unlikely	4			
	Neither likely nor unlikely	7			
	Somewhat likely	29			
	Extremely likely	80			
	Total	128	4.32	4.12	4.52
L4 - Telling my friends/family to dispose of waste appropriately	Extremely unlikely	0			
	Somewhat unlikely	0			
	Neither likely nor unlikely	2			
	Somewhat likely	8			
	Extremely likely	118			
	Total	128	4.91	4.85	4.97
L5 - Recommending visitation to family/friends	Extremely unlikely	0			
	Somewhat unlikely	1			
	Neither likely nor unlikely	4			

	Somewhat likely	11			
	Extremely likely	112			
	Total	128	4.83	4.74	4.92
L2 - Learning about the local history	Extremely unlikely	5			
	Somewhat unlikely	7			
	Neither likely nor unlikely	14			
	Somewhat likely	54			
	Extremely likely	48			
	Total	128	4.04	3.86	4.22
H1 - Volunteering my time to help with local projects	Extremely unlikely	40			
	Somewhat unlikely	19			
	Neither likely nor unlikely	27			
	Somewhat likely	30			
	Extremely likely	12			
	Total	128	2.65	2.41	2.89
H2 - Participating in local community meetings	Extremely unlikely	64			
	Somewhat unlikely	19			
	Neither likely nor unlikely	22			
	Somewhat likely	19			
	Extremely likely	4			
	Total	128	2.06	1.84	2.28
H3 - Writing letters in support of this place	Extremely unlikely	35			
	Somewhat unlikely	19			
	Neither likely nor unlikely	23			
	Somewhat likely	35			
	Extremely likely	16			
	Total	128	2.83	2.58	3.08

Table F-13 Descriptive and frequency statistics for place attachment questions at all six selected sites.

		Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
PD1 - For the recreational activities I enjoy most, the settings offered here are the best	Strongly disagree	7			
	Somewhat disagree	21			
	Neither agree nor disagree	70			
	Somewhat agree	190			
	Strongly agree	197			
	Total	485	4.13	4.05	4.21
PD2 - For the type of recreation activities I enjoy,	Strongly disagree	24			
	Somewhat disagree	55			
	Neither agree nor disagree	110			

I would not substitute this place for any other	Somewhat agree	157			
	Strongly agree	139			
	Total	485	3.68	3.58	3.79
PD3 - I enjoy visiting this location more than any other historical place	Strongly disagree	52			
	Somewhat disagree	54			
	Neither agree nor disagree	142			
	Somewhat agree	132			
	Strongly agree	105			
	Total	485	3.38	3.27	3.49
PA1 - I identify strongly with this place	Strongly disagree	47			
	Somewhat disagree	77			
	Neither agree nor disagree	97			
	Somewhat agree	120			
	Strongly agree	144			
	Total	485	3.49	3.37	3.61
PA2 - I feel this place is part of who I am	Strongly disagree	62			
	Somewhat disagree	73			
	Neither agree nor disagree	113			
	Somewhat agree	102			
	Strongly agree	135			
	Total	485	3.36	3.24	3.48
PA3 - Visiting this place says a lot about who I am	Strongly disagree	40			
	Somewhat disagree	41			
	Neither agree nor disagree	96			
	Somewhat agree	158			
	Strongly agree	150			
	Total	485	3.69	3.59	3.80
PI1 - I am connected to this place	Strongly disagree	47			
	Somewhat disagree	51			
	Neither agree nor disagree	92			
	Somewhat agree	135			
	Strongly agree	160			
	Total	485	3.64	3.52	3.76
PI2 - I feel a strong sense of belonging to this place	Strongly disagree	50			
	Somewhat disagree	54			
	Neither agree nor disagree	104			
	Somewhat agree	121			
	Strongly agree	156			
	Total	485	3.58	3.46	3.69
PI3 - This location means a lot to me	Strongly disagree	37			
	Somewhat disagree	49			
	Neither agree nor disagree	85			
	Somewhat agree	133			

	Strongly agree	181			
	Total	485	3.77	3.65	3.88
PSB1 - Many of my friends and family visit this place	Strongly disagree	72			
	Somewhat disagree	52			
	Neither agree nor disagree	98			
	Somewhat agree	122			
	Strongly agree	141			
	Total	485	3.43	3.30	3.55
PSB2 - The relationships developed by visiting this location strongly connect me to this place	Strongly disagree	23			
	Somewhat disagree	47			
	Neither agree nor disagree	83			
	Somewhat agree	128			
	Strongly agree	204			
	Total	485	3.91	3.81	4.02
PSB3 - This place allows me to connect with and get close to my friends and family	Strongly disagree	34			
	Somewhat disagree	30			
	Neither agree nor disagree	88			
	Somewhat agree	143			
	Strongly agree	190			
	Total	485	3.88	3.77	3.98

Table F-14 Descriptive and frequency statistics for behavioural intentions at all six selected sites.

		Count	Mean	95.0% Lower CL for Mean	95.0% Upper CL for Mean
L1 - Signing petitions in support of preserving the local heritage and environment	Extremely unlikely	11			
	Somewhat unlikely	13			
	Neither likely nor unlikely	27			
	Somewhat likely	132			
	Extremely likely	302			
	Total	485	4.45	4.37	4.52
L3 - Telling my friends/family not to feed the wildlife	Extremely unlikely	30			
	Somewhat unlikely	16			
	Neither likely nor unlikely	51			
	Somewhat likely	97			
	Extremely likely	291			
	Total	485	4.24	4.14	4.35
L4 - Telling my friends/family to dispose of waste appropriately	Extremely unlikely	4			
	Somewhat unlikely	5			
	Neither likely nor unlikely	17			
	Somewhat likely	43			

	Extremely likely	416			
	Total	485	4.78	4.72	4.83
L5 - Recommending visitation to family/friends	Extremely unlikely	1			
	Somewhat unlikely	4			
	Neither likely nor unlikely	14			
	Somewhat likely	77			
	Extremely likely	389			
	Total	485	4.75	4.70	4.80
L2 - Learning about the local history	Extremely unlikely	8			
	Somewhat unlikely	13			
	Neither likely nor unlikely	50			
	Somewhat likely	165			
	Extremely likely	249			
	Total	485	4.31	4.23	4.39
H1 - Volunteering my time to help with local projects	Extremely unlikely	114			
	Somewhat unlikely	87			
	Neither likely nor unlikely	84			
	Somewhat likely	112			
	Extremely likely	88			
	Total	485	2.94	2.82	3.07
H2 - Participating in local community meetings	Extremely unlikely	169			
	Somewhat unlikely	81			
	Neither likely nor unlikely	93			
	Somewhat likely	86			
	Extremely likely	56			
	Total	485	2.54	2.42	2.67
H3 - Writing letters in support of this place	Extremely unlikely	99			
	Somewhat unlikely	62			
	Neither likely nor unlikely	81			
	Somewhat likely	128			
	Extremely likely	115			
	Total	485	3.20	3.07	3.33

Appendix G – Average Scores of Place Attachment and Behavioural Intentions per Respondent and Interviewee

Table G-15 Average place attachment and behavioural intentions score for each respondent to the South Australian Maritime Museum.

Respondent ID	Place Dependence	Place Affect	Place Identity	Place Social Bonding	Low Effort Behaviour	High Effort Behaviour
3	2	1.5	1.67	2.67	4.25	1
6	4.33	1	1.67	1	4.25	1
7	3.67	3	3	2.33	3.5	3
8	4	2	3	3.67	4.75	3
9	2.67	4.5	5	4.33	4.25	1.67
10	3	3	5	3	4.5	1
11	4	4	4.33	3.67	5	1
12	4	1	2	1.67	3.75	1.33
13	4	4.5	3.33	4	5	2.33
14	4.33	3.5	3.33	4.33	4.75	3.33
15	4.67	5	5	5	5	4.33
35	2.33	1	1	2	4.5	4
42	2.33	2	2	2	3.5	3.33
78	4	3.5	4.33	4.67	5	2.33
97	5	5	4.67	4.33	5	4.33
112	2	1.5	1	1.33	4.25	3.67
128	4	3	3.33	3	4	2.67
130	3	1.5	1.33	1.67	3	1.33
131	3	3	2.33	3.33	4	2.67
133	3.33	2	2	3.33	4.75	2
134	3	2	2	3.67	3.75	2.33
139	2.33	1.5	2.33	3.33	4.25	2
177	4	5	5	4.33	4.25	1
178	3.67	1	1	2.67	5	2
179	1.67	1	1	3	3.75	3
180	4.67	4	2.67	3	4	1
181	4	4	4	4.67	5	1.67
182	4	4	4	4	5	2.33
183	1	4	4	2.33	4.75	1
184	4	4	4	3.67	5	2
185	2	1	1	1	3.25	1
186	4	1	1	1	3.75	1
187	3	3	4	4	4.25	2
195	4	3.5	3	3.33	4.25	2.67
196	3.33	3	3.67	4.33	4.5	3.33
197	2.33	1	3	5	5	1
198	2.33	1	1	3.67	4.5	1
199	4.67	5	4.33	4.67	5	3.33
200	2.33	1	1	1.67	4.75	1
201	2.67	4	4.67	3	3.25	1.33
202	4.33	5	3.33	3.67	5	2.33

203	3.33	1	1	3.67	5	2
204	3	1	1	4	5	1.67
205	5	5	5	5	5	4
230	5	5	5	5	5	5
247	3	2	2	3.33	4.5	2
248	4	4	3	2.33	4.75	2.33
263	2.33	1	1	3.67	5	1
264	4	5	4.67	4.67	4.5	3.67
265	3.67	4	4	4.33	5	4.33
266	4	2	2	2	4.25	2.33
267	2	1	2	3.67	4.75	1
268	1.67	1	1	1	3	1
269	3.33	4	4	4.67	5	2.33
271	4	3.5	3.33	4.33	5	2
272	4	2.5	2	1.33	3.5	1.67
273	4	4	3.67	3.33	5	3
274	4	5	5	4.33	5	2.67
275	4	3.5	4	3	4.5	2.67
276	3.67	3	2.33	3.33	4.5	3.67
277	3.33	3.5	2.33	2.67	3.5	3
278	3.33	3	3	3.33	4	2.33
279	4.67	5	5	3.67	3	3.67
280	4.33	4	4	4	5	4.67
281	4.33	3.5	3.67	3.67	4.25	3.67
303	3.67	3	3	3.67	4	1.33
304	4	4	4	2.67	3.25	3.67
305	3	3.5	3.67	3	3.25	3
306	4.67	5	5	5	5	4
307	3.33	3	3	3.33	4	3
308	4.67	3.5	3.33	3.33	4	3.67
309	3.33	5	5	2	4	2
326	4	4.5	3.67	4.67	4.75	3.33
327	3.67	3	3.67	3.33	5	4
332	3.67	5	4.67	4.33	4.75	2.67
333	2.33	1	4.33	4.67	5	4
334	1.33	4	2	3.67	3.75	1
335	4	2	4	4.33	5	4
336	2	2	2.67	4	4.75	1.33
337	2.67	5	4	1	5	1.33
338	2.33	1	3	3.33	4	1
339	2.33	1	1	4.33	5	3
340	2.67	3	2.67	3.33	4.75	1
341	3.33	1	2.67	4	4.75	2.67
342	3	5	5	5	4.75	3.33
363	3.67	3.5	4.33	4	4.25	3.33
375	2.67	4	4	1	4	1.33

378	3.33	3	3.33	4	4.5	2.67
380	4	3.5	4	3	4.5	4
391	4	4.5	4	4.33	5	3.67
393	3	4	4	3.33	2.5	2
410	4	2.5	3	2.67	4	1.33
416	3.67	3	3	3.33	5	5
425	4.33	3.5	3.67	3.33	4.75	3.33
439	3.33	4	4.33	3.33	4	2.33
444	5	4.5	4.33	4	4.75	4
463	2.33	4	4	3	3.5	3
465	4.33	5	5	4.33	5	4
466	4.33	4	5	3.33	5	3
467	2.33	1	2.67	2.33	3	1
468	4	2	4.33	5	5	3.67
469	4	4	4	3.67	5	2
470	2.67	2	3.33	2.67	4.5	3.67
471	2.33	1	2.67	4	4.75	3.33
472	3.67	3.5	4	3.67	4.5	4
483	3	3.5	3	3	3.25	1
484	3.33	3	3.33	3	3.75	2
485	2.33	1	1	2	2.75	2
486	3	3	2.67	2.67	2.5	1.67
506	3.67	3	3	2.67	3.75	1
515	5	5	5	3.33	4	3.67
521	3.67	3	2.33	3	3.75	2
522	3.33	2	2.67	3	3.75	4
531	4	3	3.67	3.33	4.75	2.33
553	5	5	5	5	5	5
558	3.33	4	4	3.67	4.75	2.33
559	4	4.5	4.67	3	4	3.33
560	3	2	2.33	3	5	2.33
561	3.33	3	3	3	4	3
564	3.33	5	4.67	3.33	4.75	3.33
601	4	4.5	4	3.67	4.25	3
603	3	3	3.33	4.67	4.5	1
604	4	4	4	4.67	5	2
605	4	5	5	4.67	5	5
606	4	2	2	4.67	3.5	1
607	1.33	2	1	1.67	3.25	1

Table G-16 Average place attachment and behavioural intentions score for each respondent to the Clipper Ship City of Adelaide.

Respondent ID	Place Dependence	Place Affect	Place Identity	Place Social Bonding	Low Effort Behaviour	High Effort Behaviour

2	2.33	2	1.67	1.67	2.75	2
22	3.67	1.5	1.33	3.33	3.75	3.33
38	3.67	5	5	4.67	3.5	5
39	3.67	3.5	3.67	4.33	5	4.33
41	5	5	5	4.33	5	5
56	4.67	5	4.67	4.33	4	5
57	3.33	4	2.67	2	3.5	2
68	2.67	4.5	4	4	4.5	2.33
69	3.67	3.5	2.33	1.67	4.5	2.67
74	2.67	1.5	1	1.67	4.5	1.33
76	5	5	5	3	5	5
124	4.33	2	2	2	3.75	1
136	4.67	4.5	5	3.67	4.5	4.33
206	3.33	5	5	3.67	4.25	4.67
208	3.67	4.5	4.67	4	4.25	4.33
229	5	5	5	3.67	5	5
232	4	3	3.67	2.33	4.25	3
234	3.33	3	3.33	3.33	4.5	3.33
236	3.67	5	5	4.67	4.75	4.33
237	4	2.5	2.33	2.67	4.5	2.67
238	3.67	4.5	4.33	4	4.75	3.67
240	4	4	4	3.33	4.25	3.33
246	2.33	2.5	2	1	4.75	2.67
262	3.67	3.5	3	3	4	3.33
343	2.67	4.5	5	5	5	2.33
346	3.67	3	3	3	3.25	3
385	3.67	3.5	4	3	4.5	3.33
394	5	3	3.67	5	5	5
395	3.33	5	5	3.67	5	5
397	3	2.5	3	2.33	3	2.67
399	2.67	4	2.67	4.67	5	1
400	1	3	1	1.67	4.5	1
401	2.67	1	4.33	3.67	5	3.67
402	4	5	5	3	5	2
423	5	5	5	5	5	5
445	3	3	3.33	1.33	4.5	1
448	4	4	5	3.67	5	5
449	3.67	4	3.33	3.33	5	2
474	4	4	4.33	2.67	5	4
479	3.67	2	2.67	2.33	3.75	1.67
488	3.67	3.5	3.33	3.33	4.25	3.67
491	3.67	3	3	2.67	3.75	2
494	3.67	5	4	2.67	4.75	3
508	2.67	3.5	3.33	2.33	2.5	4
511	3.67	3.5	3.33	3.33	5	4.67
512	2	3	2	1.33	1.5	3

516	4.33	4.5	4.33	4.67	5	5
528	2.33	1	1.67	1.67	3.75	2.67
533	3.33	3	3	3.67	4.75	3.67
548	4	4	3.67	3.67	5	5
552	3.67	4	3.67	3.33	4.75	2.67
555	4	4	4.67	5	5	5
556	5	5	5	5	5	5
557	5	5	5	4.33	5	5

Table G-17 Average place attachment and behavioural intentions score for each respondent to the Garden Island Shipwreck Graveyard.

Respondent ID	Place Dependence	Place Affect	Place Identity	Place Social Bonding	Low Effort Behaviour	High Effort Behaviour
43	2.67	3	3	3	5	3
44	3.67	3	3	2	5	1
45	4	3	4.33	5	5	5
140	3.67	3	3	5	4.75	3
192	4	4	4	4.33	5	5
231	5	5	5	5	5	5
254	3.67	5	5	3	5	5
255	3.33	5	5	5	5	5
256	3	1	1.67	4	5	2
257	3	1	1	3	4.25	1
258	3.33	2	4	4.67	5	2.67
259	5	5	5	5	5	5
382	3.67	3.5	3.67	3.33	5	2
384	4.67	3	3.33	3.67	4.25	3
386	2.67	1	3	2.33	4.5	3.67
387	3.67	3	2	2.67	3.5	1.33
388	4	3.5	4	2.67	4.5	2.33
403	3.33	2	3.67	3.67	4.5	3.67
404	4.67	3	5	5	5	3.67
405	3.67	4	4	3.33	4.75	2
406	2.33	2	2	3.33	5	3
407	3.67	3	3	3.67	5	1
413	2.67	2	2	2.33	3.75	2.67
462	5	5	5	4.33	5	3
464	3	3	3.33	3.33	4.75	3.33
473	3.67	4	4	3	4	3.67
477	2.67	1.5	1.33	1.33	3.25	1
502	4.33	3.5	4.33	4	5	4.33
503	3.67	4	3.33	2.67	3.25	1
513	4.33	2	4.33	3.67	5	4
514	4.33	3	3	4.33	5	2.33

517	4	1.5	1.67	4	4.75	3.67
554	5	5	5	5	5	5
592	4	3	4	4.67	5	1.67
593	4	2	4	3	5	2
594	3	3	3	3	5	1
595	4	2	3	3.67	5	1.67
596	5	5	5	5	5	5
597	2	1	1	1.67	3.5	1
598	4	4	4.67	1	5	4.67

Table G-18 Average place attachment and behavioural intentions score for each respondent to Port Willunga.

Respondent ID	Place Dependence	Place Affect	Place Identity	Place Social Bonding	Low Effort Behaviour	High Effort Behaviour
1	4.33	3.5	3.33	2	5	5
24	5	5	5	5	5	4.67
25	4	2	2	4.33	5	2.33
26	4.33	2	2.33	5	5	1.67
27	3.67	3	3	3.67	4.5	3.67
28	3	3	3	4.33	4.75	1
29	2.67	2	2	4.33	3.25	2
30	5	3	5	5	5	5
31	4.33	4	4	3.67	4.75	2.67
32	5	5	5	5	5	4.67
33	5	3	5	3	4.25	2
34	5	5	5	5	5	4.67
46	5	5	5	5	5	5
47	4	5	5	5	5	4.67
48	5	5	5	4.33	5	5
49	3.67	5	5	5	5	4.33
50	3.67	3	3	5	5	2
51	5	2	2	5	5	2.33
52	3.67	3	3	4.67	5	2.33
59	3.67	3.5	4	5	5	5
62	4.33	4.5	4.33	2.33	3.75	4.33
63	3.33	2.5	1	1.67	4.5	3
64	4.67	4.5	4.67	2.33	5	4.33
66	2.33	1	2	1	4	3
75	5	5	5	4	4.5	4.67
77	4	3.5	3.33	3.33	5	4.33
115	3.33	4	3.33	2.67	3.75	3
116	5	5	5	5	5	5
117	5	4	5	5	4.25	4.33
119	3.67	5	5	3.67	4.25	3.33
120	5	5	5	4.67	4.25	4

121	3.33	4.5	5	3.67	4.75	4
122	4	5	5	4	5	4
123	5	5	5	5	5	5
125	5	5	5	5	5	5
126	5	5	5	3.67	5	4.33
127	3.67	4	4	4.67	4.75	4
129	5	5	5	4.67	4.5	3.33
141	3.33	5	5	5	5	4
142	2	2	2	2.67	3.75	2
143	5	5	5	5	5	4.67
144	5	5	5	4.67	5	3
145	4.33	3	3.33	4.33	4.75	3.33
146	3.33	1	1	2	4.25	1
147	5	5	5	4.33	5	4.33
148	3.33	3	3	4.33	5	3.67
149	3.67	5	5	5	4.5	4.33
150	3.67	4	5	5	3	1
151	4	5	5	5	5	4.33
152	3.33	4	3.67	4.67	5	1.67
153	3.33	2	2	5	5	1
155	3.67	4	4	4	5	4
156	5	5	5	4.33	4.5	3.67
157	4.33	3	2	1.67	3.25	4.33
190	4	3	4	4.33	5	4
191	4.67	5	5	4.67	5	4
242	2.33	1.5	1.33	3	3.5	1.67
261	5	5	5	3.67	4.75	3.33
270	5	5	5	4.67	4.75	3
282	3.33	2	1	1	3.25	1
283	5	4	4.33	5	4.75	4
284	4.67	5	5	4.67	5	3.33
285	2.67	1	4	4.67	5	3
286	5	5	5	5	5	4.33
287	4.33	4	5	5	4.75	4
288	5	5	5	5	5	3
289	3	2	4	4	5	3.33
290	4	5	5	5	4.25	2
291	2	1	5	4	5	3.33
292	4	2	5	5	5	3.67
293	2.67	2	2	4.33	4.5	1
294	5	5	5	5	5	2.67
295	5	3	5	5	4.5	3.67
296	3.67	5	5	5	5	2
297	5	5	5	5	5	5
298	5	2	5	5	4.75	2
299	4	5	5	5	5	4

300	3	4	3.67	2.33	4.25	1
301	4	3	4	4.67	4.75	3
302	5	5	5	5	5	5
345	5	5	5	4.33	5	5
362	4.33	3	3.33	2.67	5	3.67
408	4	3.5	4	4	4.5	3.67
409	4.33	5	3.33	5	5	4.33
411	5	5	5	5	4	4.33
418	5	5	4.33	4	5	2.67
419	2.67	1	4.67	4.33	5	2
420	2.67	1	5	3.67	4	2
421	4.33	5	5	5	5	2.33
422	5	5	5	5	5	4.33
432	5	5	5	5	4.5	4
447	3	5	4.33	3.67	4.75	3.67
450	3.33	3	3	4.33	4.75	1
476	4	3	4	4.67	5	1.67
478	5	4	4.67	5	5	1.67
500	5	5	5	5	5	5
501	5	5	5	5	5	5
510	4.33	5	5	5	4.5	1.67
519	4	4	4	5	5	4.33
520	4	3	3	3.33	4	3.67
567	5	3	3.33	4.67	4.75	3.67
568	5	5	5	5	5	5
569	4.67	5	5	5	5	3.33
570	5	5	5	5	5	5
571	4	4	4	3.33	5	5
572	4	4	4	4	4.5	3
573	3	2	3.33	3.67	4.5	2
574	3	2	2	3.67	4.5	1
575	5	5	5	5	5	5
576	5	5	5	5	5	2.33
577	4	4	4	4	5	2
578	2	2	2	3.33	4.25	1
579	3.33	3	3	4	4.75	1.33
584	4.33	5	5	4	5	5

Table G-19 Average place attachment and behavioural intentions score for each respondent to ex-HMAS Hobart.

Respondent ID	Place Dependence	Place Affect	Place Identity	Place Social Bonding	Low Effort Behaviour	High Effort Behaviour
16	2	4	4	3	4.25	3.33
55	5	4	4.33	4	5	3.67
58	4.67	4	4	3.33	4.5	4.33

67	2.67	3	3.67	4	5	4
95	4	3.5	3.33	4	5	4
96	3.67	2	4	3.33	5	3.67
113	3.67	1.5	1	3.67	4.5	1
160	4.67	4	4	3.33	4.75	3.33
173	3.33	3	3.33	3	4.25	3.33
193	2.67	3	3	2.33	4.25	3.67
250	1.33	1.5	2	4	4.25	1.67
366	2.33	3	3	3.33	5	2.33
371	3.67	2	1.67	1.33	4.5	2.67
372	4.67	5	5	4	4.75	4
374	4	3	3	3.67	4.5	3.33
377	4.67	1.5	3	3.67	4.5	3
429	3	1	1	3	4.25	1
475	4	3.5	2.67	3.33	4.5	4.67
537	4.67	4.5	2.33	2.67	4.25	2
565	3.67	2	2	3.33	4.25	3.67
600	5	4	4	4.67	4	3.33

Table G-20 Average place attachment and behavioural intentions score for each respondent to Rapid Bay.

Respondent ID	Place Dependence	Place Affect	Place Identity	Place Social Bonding	Low Effort Behaviour	High Effort Behaviour
4	3.33	1.5	2	3	4.75	1.67
5	4	3	4.67	4.67	4.5	2.33
17	5	5	5	4.67	5	4.67
18	3.33	4.5	5	4.33	4	1
19	1.67	2	2	2.33	3.75	1.33
20	2.67	3	3	4.33	4.75	2
21	4.33	5	5	4.33	5	3
37	4	3	3.33	4	3.5	1.33
40	4.33	4.5	5	4	4.75	3.67
54	4	4.5	4	3.67	4	2.33
60	3	3.5	3.67	5	5	4.33
61	4.67	4	5	4.67	5	2.33
71	4	3.5	4	4.67	4.5	3.33
73	4	4	3.67	3.67	4.25	2
79	4	3	1	1	3.25	2.33
80	2.67	1.5	1	4.67	4.5	1
81	5	5	5	5	5	2
82	4.67	5	5	5	5	4
83	3.33	5	5	5	4.75	4
84	3.67	5	5	5	5	2.33
85	3.67	2	1	3.67	5	3
86	3.67	1	1	5	5	1

87	3.67	4	4	4	5	1
88	4	5	5	5	5	2.67
89	2	1	1	1	5	3.67
90	3	4	4	2	4.75	2
91	3.33	3	3.33	4	4.75	2
92	3.67	5	5	4.33	3.75	1
93	4.67	4	5	4	5	2
94	3.67	4.5	4.33	5	5	4
138	2.33	2.5	3	3.67	4.25	3.67
154	4	3.5	3	3.67	4.25	3
158	3.67	3.5	3.33	3.33	4.5	3.33
161	3.33	3	3	3.33	4.5	3.33
162	2.67	3	4	4	4.5	1
163	1.33	2	4	3.67	4	1
164	3.67	4	4	4.67	5	3.67
165	5	3	4.67	5	4.75	3.33
166	4.67	2	3.67	5	5	1.33
167	4.33	4	5	4.67	4.75	1.67
168	4.33	4	3.67	5	4.75	1
169	3.67	3.5	3.67	3.67	5	1
170	3	1	3	3	5	1
172	4	5	5	4	4.75	2
174	4.67	4.5	4	4	4.25	3.33
175	1.67	1	1.67	1.67	4.25	1.67
176	3.67	3	3.33	4	4.75	3.67
194	4.67	4	3.67	1.33	4.25	2.33
207	4.67	3.5	4	3.67	4.75	4.33
209	4	4	5	3.67	4.75	2.67
210	3	1	3	2.67	5	2.33
211	4.33	2	5	4.67	4	1
212	4.67	5	5	3	5	2.67
213	3	3	5	4.67	4.75	2.33
214	4	3	5	4	5	4.33
215	3.67	5	5	5	5	3.67
216	1.67	2	2.33	5	5	2
217	3	4	4	4.67	4.5	2.33
218	3.33	4	4	3	4.75	1
219	3.67	2	4	3.67	5	2
220	2	4	4	4	5	1.67
221	4	4	4	4	4.75	4
222	4.33	4	4.67	4.67	5	1.33
223	5	5	5	5	5	3
224	4	4	4	3.67	5	1
225	5	5	5	5	4.75	1
226	3	4	4.33	3.33	5	1
227	5	5	5	5	5	3

228	5	4	4	4.67	5	2.67
249	4.33	4.5	5	4	4.5	1.67
310	4	5	5	5	5	5
311	3.33	2	1.33	1	4.5	1
312	3.67	5	5	3.67	3.75	3.67
313	3	2	3.33	3.67	4.75	1.67
314	2	1	1	2.33	4.5	1
315	5	4	4	4	4.75	1
316	3.67	3	2.33	5	5	3
317	5	5	5	5	5	2.67
318	5	2	1	3.67	5	1.67
319	4.33	5	4.33	5	5	2.33
320	3.67	3	4	5	5	3.33
321	2.67	2	2	3.67	5	1.67
322	3.33	2	2	3.33	4.75	1.67
323	4	2	4.67	3.67	5	1
324	3	2	3	4.67	5	2.67
325	5	5	5	5	5	3
329	2.67	3	3.33	2.33	4.25	3
361	4	5	5	4	4.75	3.67
364	4	5	5	4	5	1.33
367	3.33	3.5	4.67	3.67	4.5	3
368	3	3	3	3.33	4	2.33
369	4.67	3	3.67	4	5	3
370	4	4	4	4	4.75	2.67
373	5	4	3.67	3	4.5	3.33
379	2	2	3.33	3.33	3.5	1
389	4.33	5	5	4	4.25	3.33
398	3.67	4	4.33	3.67	4.75	3
451	3.67	2	2	3.67	5	4.33
452	2.67	1	2.67	3.67	3.75	1
453	4.33	3	5	4.67	5	3.67
454	4.67	3	3	3.67	4.25	3
455	1.33	1	3.67	4	5	1
456	5	5	5	3.67	5	4
457	4	4	4	4	4	2.33
458	4.67	5	5	5	5	4.67
459	4.67	5	5	5	5	4.33
460	2.67	1	2	3.33	4	3.67
461	3.33	2	3.67	3.67	5	4.33
480	4	3	3.67	2.67	3.75	2.33
493	2.67	3	3.33	4	4.75	2.33
495	2.33	3	4	3	5	1
496	4	2	4	4	4.25	1
497	2.67	2	2	3	3.5	1
498	3.33	3	4	4.33	3.75	1.67

499	5	4	4	4.67	4.75	1.67
505	2.67	2	2	2.33	4	3.33
526	4.67	5	5	5	4.75	3.33
530	2.67	2	2.33	2.67	2.5	2.33
539	4	5	5	4.67	5	4.67
540	3.67	3	3	3.67	5	2
541	3	2	3	3.67	5	1
542	3.67	3	3	3.67	5	2
551	4.67	5	4.33	4.67	5	4.67
562	3.67	4	4.33	5	5	4.33
563	2.67	3	3	3.67	4.5	4.33
566	3.67	3	2.67	3.67	5	3.33
580	4.33	3	3.33	2	4.75	3.33
609	3.33	4.5	5	3.67	4.75	4

Table G-21 Average place attachment and behavioural intentions score for each interviewee to all six sites.

Site	Place Dependence	Place Affect	Place Identity	Place Social Bonding	Low Effort Behaviour	High Effort Behaviour
South Australian Maritime Museum	3	5	5	4.67	5	5
South Australian Maritime Museum	4.33	5	5	5	5	5
South Australian Maritime Museum	4	5	5	5	5	5
South Australian Maritime Museum	4	5	5	5	5	5
South Australian Maritime Museum	4	5	5	4.67	5	5
Clipper Ship City of Adelaide	5	5	5	5	5	5
Clipper Ship City of Adelaide	4.67	5	5	5	5	5
Clipper Ship City of Adelaide	4.33	5	5	4.67	4.25	5
Clipper Ship City of Adelaide	5	5	5	5	5	5
Clipper Ship City of Adelaide	4.33	4	5	4.67	5	5
Clipper Ship City of Adelaide	3.33	5	5	4.33	4.5	5
Clipper Ship City of Adelaide	4	5	5	5	5	5
Clipper Ship City of Adelaide	3.67	5	5	4.67	5	5
Clipper Ship City of Adelaide	3.33	5	5	4.33	5	5
Clipper Ship City of Adelaide	2.33	4	5	5	5	5
Clipper Ship City of Adelaide	4	5	5	3.67	5	5
Garden Island Shipwreck Graveyard	2.33	4	5	4.67	5	4.67
Garden Island Shipwreck Graveyard	5	4	5	4.67	5	5
Garden Island Shipwreck Graveyard	5	5	5	5	5	5
Garden Island Shipwreck Graveyard	5	5	5	4.67	5	5

Garden Island Shipwreck Graveyard	5	5	5	5	5	5
Garden Island Shipwreck Graveyard	5	5	5	5	5	4.67
Port Willunga	4.67	5	5	5	5	5
Port Willunga	5	5	5	5	5	5
Port Willunga	5	5	5	4.67	5	5
Port Willunga	4.33	5	5	5	5	5
Port Willunga	4.67	5	5	5	5	5
Port Willunga	3.67	5	4.67	5	5	4.67
Port Willunga	5	5	5	5	5	5
Port Willunga	5	4	4.67	4.67	5	5
Port Willunga	5	5	5	5	5	5
Ex-HMAS Hobart	4	5	5	4.67	5	5
Ex-HMAS Hobart	4.33	3.5	3.67	3.67	4.75	3.33
Ex-HMAS Hobart	3	5	5	5	5	5
Rapid Bay	4.67	5	5	5	5	5
Rapid Bay	3	5	5	5	5	5
Rapid Bay	4	4	4	5	5	2.67
Rapid Bay	5	5	5	5	5	4
Rapid Bay	5	5	5	5	5	5
Rapid Bay	5	5	5	5	5	4.33
Rapid Bay	5	4	4.33	4.67	5	4
Rapid Bay	5	5	5	5	5	4.67

Appendix H – Additional Statistics for the Place Attachment Framework Assessment

Table H-22 Factor matrix table grouping place attachment questions into each factor.

Initial coding	Questions	Factors			
		1	2	3	4
Place Dependence Q1	For the recreational activities I enjoy most, the settings offered here are the best	**0.614***	0.007	0.065	0.07
Place Dependence Q2	For the type of recreation activities, I enjoy I would not substitute this place for any other	**0.919***	-0.007	-0.018	-0.079*
Place Dependence Q3	I enjoy visiting this location more than any other historical place	**0.572***	0.201*	0.022	0.079
Place Affect Q1	I identify strongly with this place	-0.031*	**1.055***	0.01	-0.013
Place Affect Q2	I feel this place is part of who I am	0.057	**0.629***	0.323*	-0.012
Place Affect Q3	Visiting this place says a lot about who I am	0.089	0.189*	**0.572***	0.080*
Place Identity Q1	I am connected to this place	-0.024	-0.011	**1.041***	-0.043*
Place Identity Q2	I feel a strong sense of belonging to this place	-0.015	0.005	**0.985***	-0.002
Place Identity Q3	This location means a lot to me	0.018	0.254*	**0.618***	0.104*
Place Social Bonding Q1	Many of my friends and family visit this place	0.132*	0.253*	0.027	**0.413***
Place Social Bonding Q2	The relationships developed by visiting this location strongly connect me to this place	0.042	-0.056	0.15	**0.790***
Place Social Bonding Q3	This place allows me to connect with and get close to my friends and family	-0.055	0.034	-0.034	**0.981***

Table H-23 Factor matrix table grouping behavioural intention questions into each factor.

Initial coding	Behaviour	Factor	
		1	2
Low Effort 1	Signing petitions in support of preserving the local heritage and environment	**0.612***	0.205*
Low Effort 3	Telling my friends/family not to feed the wildlife	**0.721***	0.035
Low Effort 4	Telling my friends/family to dispose of waste appropriately	**0.940***	-0.248*
Low Effort 5	Recommending visitation to family/friends	**0.652***	0.002
Low Effort 2	Learning about the local history	0.368*	0.432*
High Effort 1	Volunteering my time to help with local projects	0.008	**0.918***
High Effort 2	Participating in local community meetings	-0.061	**0.962***
High Effort 3	Writing letters in support of this place	0.216*	**0.693***

Table H-24 Standardised Regression Weights between the place attachment and behavioural intention types

			Estimate	P-value
Q19_LE_Average	<---	Q17_PD_Average	.151	0.002
Q19_LE_Average	<---	Q17_PA_Average	-.120	0.067
Q19_LE_Average	<---	Q17_PI_Average	.133	0.054
Q19_LE_Average	<---	Q17_PSB_Average	.434	<0.001
Q19_HE_Average	<---	Q17_PI_Average	.180	0.009
Q19_HE_Average	<---	Q17_PSB_Average	-.013	0.796
Q19_HE_Average	<---	Q17_PA_Average	.172	0.009
Q19_HE_Average	<---	Q17_PD_Average	.228	<0.001
Q19_HE_Average	<---	Q19_LE_Average	.113	0.012

Table H-25 Squared Multiple Correlations for the behavioural intention types.

	Estimate
Q19_LE_Average	.303
Q19_HE_Average	.305

Table H-26 Correlations between each of the place attachment types.

			Estimate	P-value
Q17_PI_Average	<-->	Q17_PSB_Average	.593	<0.001
Q17_PSB_Average	<-->	Q17_PA_Average	.448	<0.001
Q17_PSB_Average	<-->	Q17_PD_Average	.463	<0.001
Q17_PI_Average	<-->	Q17_PA_Average	.790	<0.001
Q17_PI_Average	<-->	Q17_PD_Average	.575	<0.001
Q17_PA_Average	<-->	Q17_PD_Average	.606	<0.001