Beneath the colonial gaze:

Modelling maritime society and cross-cultural contact on Australia’s Southern Ocean frontier—the Archipelago of the Recherche, Western Australia

This thesis is presented for the degree of Doctor of Philosophy of the University of Western Australia School of Social Sciences Archaeology

2016

Ross Anderson
Abstract

This thesis presents a model for understanding maritime society, cross-cultural contact and informal colonisation processes that transformed society and environment across Australasia’s ‘Southern Ocean frontier’—the mainland and offshore islands of Australia and New Zealand where newcomers came into contact with Aboriginal people.

The incorporation of maritime frontiers is essential to any discussion of exploration, frontier studies, cross-culture contact and colonisation processes in Australasia. Immediately following the establishment of the British penal settlement at Port Jackson, New South Wales in 1788, sealers and whalers extended Port Jackson’s economic frontier with their explorations of the ‘South Seas’, including the southern coastlines and offshore islands of Australia and New Zealand.

Connected to established northern hemisphere oil and fur markets in Europe, North America and China, sealing and whaling were key drivers for maritime exploration and settlement along Australasia’s Southern Ocean frontier. Sealing and whaling attracted foreign shipping, established commercial relationships with major mercantile houses in London, India and China, and transformed Port Jackson from a penal colony into the major shipping and financial centre of the South Seas (Little 1969: 113). The ability to trade furs directly with China in exchange for money, tea, silk and other commodities reduced the need to export British currency to the China market, and generated colonial wealth to fund mercantile and agro-pastoral ventures.

Unofficial exploration and informal settlement of the Southern Ocean frontier by newcomers in ships led to encounters with Indigenous societies, with seasonal and permanent coastal settlements established on islands and the mainland trading in marine and hinterland resources. Later official colonial settlement benefited from the acquired knowledge of the coast and its resources, and as settler society expanded political, economic and cultural frontiers further into Indigenous territories in the coastal hinterland, traditional life was radically transformed.

The theme of cross-cultural contact applies to the initial contacts made by sealers and whalers with Aboriginal people on the Southern Ocean frontier, the participation
of Aboriginal people in those industries and the diverse ethnicities of crews in the sealing and whaling industries. This thesis follows Lape’s (2003: 103) methodological approach to exploring local two-way transfer through culture contact in that it will ‘...document local developments in the context of large regional scale interactions and influences...[to consider] a focus on the two-way transfer of ideas, influences and technologies in contact situations, an increased concern with the specific mechanisms of information transfer and a related focus on local uses and meanings of foreign ideas and material objects’. This methodological approach avoids the dominant Western paradigm of affirming colonisation processes, and seeks to understand the widest possible diversity of responses to cross-cultural contact, both historically and materially as represented in the archaeological record.

The geographical focus of this research is the Archipelago of the Recherche off Western Australia’s southern coast and the adjacent mainland, which contain a variety of archaeological evidence related to 19th-century seal and whale harvesting including shipwrecks, historical archaeological sites and Aboriginal sites and artefacts.

Findings derived from historical and archaeological research provide an overview of the history, extent and types of sealing, whaling and cross-cultural contact occurring within the Archipelago during the 19th and early 20th centuries. Fieldwork was undertaken to record a variety of underwater, historical terrestrial and Indigenous archaeological sites. A holistic maritime landscape approach allows for a new understanding of the links between material and symbolic heritage sites in the Archipelago of the Recherche. Pre-existing environmental and cultural boundaries defining the fluid, liminal borderland spaces on the Southern Ocean frontier are described as are their subsequent transformation to more rigidly controlled spaces through colonisation processes. Other key aspects to understanding the maritime frontier landscape include the importance of islands; the establishment of seasonal camps and informal settlements as a precursor to semi-permanent and permanent settlement; voyaging and shipping networks; cross-cultural contact; the blending of Indigenous and newcomer cultures; the operation of hybrid colonial exchange economies; and over-exploitation of resources leading to decline and abandonment.
Declaration

Having completed my course of study and research towards the degree of Doctor of Philosophy by research (by thesis), I hereby submit my thesis for examination in accordance with the regulations and declare that the thesis has been substantially completed during the course of enrolment in this degree at UWA and has not previously been accepted for a degree at this or another institution. I have read the rules relating to content and format of a thesis, words limits, and submission of a thesis for examination. The thesis is within the set word limit for my degree program. The thesis meets the following specifications: A4 size paper; left-hand margin of 4cm or more, other margins 2cm; temporary binding in thermal, clamp or spiral style; each volume no more than 6cm in spine width and 2.5kg in weight. I am under no obligation, nor am I aware of the University being under any obligation, to keep all or any part of my thesis confidential for any period of time. I understand and agree that examiners are not required to return their copy of my thesis. An electronic copy of my thesis is attached on a CD or Flash Drive in PDF format. I am able to access my student email and Student Connect. I note that all communication from the Graduate Research Office regarding my thesis examination will be via my student email. I authorise the University of Western Australia to submit my thesis to a plagiarism detection service at their discretion.

Signed …………………………………………………………….

Ross Anderson
Acknowledgements

Many people have assisted in many ways large and small, by providing information, advice, friendship, teaching me new skills and generally helping me learn more about the incredibly special natural and cultural landscape/seascape of the Archipelago of the Recherche.

In particular I would like to thank the Wudjari Traditional Owners of Esperance, and Ron (Doc) Reynolds and David Guilfoyle as Directors of the Gabbie Kylie Foundation (GKF), who have created an inspiring project to manage their natural and cultural heritage into the future through a unique program of community-based research, cultural heritage management field schools and archaeological fieldwork, while upholding customary practices and protocols. Traditional Owners Ron (Doc), Robyn, Tegan and Tara Reynolds, Gail Yorkshire-Selby, Graham Tucker, Wayne Williams, Terrence (Bubba Lee) Yorkshire, Henry Dabb, Murray Bullen, Kevin Reynolds, Bill and Veronica and Gavin Clinch have made me feel welcome on their country with their friendship and hospitality, while Bev Dunn helped keep the fieldwork team functioning with massive plates of food—it has been a great privilege and career highlight to be involved in the program.

I am sincerely grateful for the time and efforts of my coordinating supervisor Professor Peter Veth, and joint supervisors Professor Alistair Paterson and Dr. Wendy van Duivenvoorde, who provided me with their valuable advice, feedback and support throughout the research and writing process.

The 2006 Middle Island and Boxer Island expedition was funded by a University of Western Australia Research Grants Scheme project, and Dr Alistair Paterson led the team with members Ron (Doc) Reynolds, Corioli Souter, Sam Bolton, Sean Mackay, John Marrell, Stafford Smith, Tammy Baca, Amit Eliyahu, and the author, with Peter Hudson from Esperance Diving and Fishing providing boat support. The University of Western Australia’s Graduate Research School provided a travel grant allowing me to visit the Mitchell Library in New South Wales to research archives relating to the Belinda (1824) shipwreck in September 2013.
Teresa Lopresti, Adriaan de Jong, Rod Dickson, Don Love, Adam Wolfe, Jan Auburn, Moya Smith, Charlie Dortch, Terry Arnott, Jenny Craig, Daryl Wesley, Jason Raupp, Sarah Drummond, Sarah Hay, Professor Steve Hopper, Julian Kruger, Graeme Henderson and Martin Gibbs have been generous with sharing their research and providing historical, botanical, genealogical and archaeological references and advice. Archaeologists Dave Guilfoyle, Cat Morgan and Myles Mitchell from Applied Archaeology Australia have assisted with all of the fieldwork, and patiently taught me new skills in identifying lithic artefacts.

My Western Australian Museum colleagues and friends, including staff past and present from the Departments of Maritime Archaeology and Materials Conservation who participated in field trips, found the Belinda shipwreck, conserved artefacts, conducted artefact analyses and generally assisted with encouragement and advice include Jeremy Green, Patrick Baker, Graeme Henderson, Corioli Souter, Mack McCarthy, Myra Stanbury, Geoff Kimpton, Ian Godfrey, Vicki Richards, Lucy Burrow, Jon Carpenter, Nic Bigourdan, Isa Loo, Inger Nyström-Godfrey and Kalle Kasi. Moya Smith in the Department of Anthropology gave me many valuable insights into the archaeology and cultural history of the Esperance area.

Abalone diver and skipper of Payne’s Find Marc Payne and Frank Payne, Renee Gardiner, Christie Gardiner, Sarah, Ian and Jan Hay, John Cahill and Frank, Warwick Hill and Tara-Jane Cream of Oelin, Sydney Swierenga, Amy de la Sale, Graham Gath, Jacinta Bauer, Lyn Rudder, Dave Riggs and John Totterdell assisted with fieldwork by walking up granite outcrops, bush-bashing through scrub, recording sites, skippering boats, underwater photography, diving and sitting around campfires. Commercial fishers Marc and Frank Payne, Warwick Hill, John Cahill and Dennis Madgen provided information on historic and modern commercial fishing activities and sites on the islands and mainland.

Friends and archaeologists who assisted me by providing copies of archaeological reports, theses and references include Jaco Boshoff, Brad Duncan, Martin Gibbs, Susan Lawrence, Sarah Drummond, Myles Mitchell, Mike Nash, Moya Smith, Jeremy Smith, Jody Steele and Rhonda Steel. Western Australian Museum librarians Leonie Samuells and Wendy Crawford responded to numerous requests for library and inter-library loans (sorry about the overdue ones!). Matt Ellis provided
his professional graphic design skills for some of the maps and infographics (that would be the professional looking ones).

Dr Richard Campbell and Dr Holly Raudino from the Department of Parks and Wildlife provided data and helpful discussions on seals and sea lion populations in Western Australia, and Dr Oliver Berry from the CSIRO undertook the DNA analysis to identify the Boxer Island Australian sea lion skins. Swimming ashore on a wet, grey, foggy morning at Five Mile Island in the Eastern Group with Richard and Holly to catch, weigh and photograph recently born Australian sea lion pups, while avoiding attack by their parents, gave a David Attenborough-esque insight into the lives of these animals, along with the experience of being a human invader on another planet! Dr Robert Warneke provided valuable information on sealskin processing techniques and historical sealing sources. Ornithologist Dr Jennifer Lavers provided information on impacts to shearwater populations and breeding sites in the Archipelago. Staff at the Department of Parks and Wildlife, Esperance office assisted with planning, permits and logistics.

Esperance locals Dot Andre from the Esperance Historical Society, Wendy Plunkett, Curator at the Esperance Museum and Graham Gath have provided long-term assistance over the course of this research by providing historical information, references and photographs. Thanks to Jules and Jen who let me stay at their place at Cowarump to use their office as a writing retreat, and shared surf sessions in between sessions at the screen.

Last, but not least, to my wonderful family Jonathan, Frances, Kathy and Sue, and especially my wife Renee and daughter Maya who provided the love and support to see this work through to completion.
# Table of Contents

Abstract ........................................................................................................................................... i
Declaration ......................................................................................................................................... iii
Acknowledgements ......................................................................................................................... iv
List of Figures ...................................................................................................................................... xv
List of Tables ...................................................................................................................................... xxvii
Abbreviations .................................................................................................................................... xxviii
Newspapers ....................................................................................................................................... xxix

Chapter 1 Introduction ...................................................................................................................... 26
Australasia’s Southern Ocean frontier ............................................................................................ 28
Study area .......................................................................................................................................... 34
Aims of the study .............................................................................................................................. 35
Significance of the study .................................................................................................................. 36
Thesis overview ............................................................................................................................... 40

Chapter 2 Literature review and theoretical approaches ................................................................. 43
Introduction ......................................................................................................................................... 43
Theoretical approaches ....................................................................................................................... 44
Social archaeology ............................................................................................................................. 46
Maritime cultural landscape approach ............................................................................................. 49
Defining the maritime cultural landscape ......................................................................................... 49
Cross-cultural contact zones ........................................................................................................... 52
Environment and ecology ................................................................................................................ 54
Frontier theory .................................................................................................................................. 55
Modelling the Southern Ocean frontier ........................................................................................... 59
Imported institutions .......................................................................................................................... 65
Cross-cultural contact ....................................................................................................................... 66
Economic approaches ....................................................................................................................... 73
Economic phases and transitions ..................................................................................................... 73
Frontier, colonial and hybrid exchange economies ......................................................................... 77
Social approaches ............................................................................................................................. 80
Strategies ........................................................................................................................................... 81
Site identification and structures ..................................................................................................... 81
Discussion of key findings to develop a model for informal maritime society on the Southern Ocean frontier ................................................................................................................. 86
Chapter 3 The environment and marine mammal resources of the Archipelago of the
Recherche................................................................. 90

Introduction...................................................................90
Oceanography and biogeography..........................................97
Pinnipeds.......................................................................99

Australian sea lion (*Neophoca cinerea*) ................................101
New Zealand fur seal (*Arctocephalus forsteri*) .......................103

Cetaceans ..................................................................105
Southern right whale (*Eubalaena australis*) .........................106
Humpback whales (*Megaptera novaeangliae*) ......................108
Sperm whales (* Physeter macrocephalus*) ...........................109

Environmental impacts.......................................................111
Discussion ....................................................................111

Chapter 4 Historical archaeological research methodology ..................113

Restatement of research aims .............................................113
Overview of research methods ...........................................113

Historical research methods .............................................114
Cross-cultural landscape approach to the research ................115

Formulation of archaeological research questions ..................115

Environmental sources ..................................................116

Historical sources .........................................................117

Primary sources ..........................................................117
Secondary sources ........................................................121

Archaeological methods ................................................123

Fieldwork ....................................................................123

Archaeological literature review .......................................123

Archaeological data .......................................................123

Archaeological fieldwork and artefact collections .................124

Permission and permits ................................................126

Survey team...................................................................126

Survey locations and methods .........................................126

GIS Mapping ................................................................127

Synthesis of historical and archaeological information ............128

Chapter 5 Thematic historical study into sealing, whaling and informal maritime society on
the Southern Ocean frontier ...........................................129
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>The Southern Ocean frontier exchange economy</td>
<td>177</td>
</tr>
<tr>
<td></td>
<td>Introduction</td>
<td>177</td>
</tr>
<tr>
<td></td>
<td>Barter and exchange</td>
<td>178</td>
</tr>
<tr>
<td></td>
<td>The Swan River Colony exchange economy</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td>The King George Sound colonial exchange economy</td>
<td>181</td>
</tr>
<tr>
<td></td>
<td>The Southern Ocean frontier exchange economy</td>
<td>185</td>
</tr>
<tr>
<td></td>
<td>Indigenous contributions to the Southern Ocean exchange economy</td>
<td>190</td>
</tr>
<tr>
<td></td>
<td>Summary</td>
<td>193</td>
</tr>
<tr>
<td>7</td>
<td>Maritime cultural landscapes and seascapes of the Archipelago of the Recherche</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td>Introduction</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td>Indigenous landscapes and seascapes</td>
<td>198</td>
</tr>
<tr>
<td></td>
<td>Marine mammal hunting grounds</td>
<td>204</td>
</tr>
<tr>
<td></td>
<td>The South Seas and New Holland whaling grounds</td>
<td>204</td>
</tr>
<tr>
<td></td>
<td>Islands on the Southern Ocean frontier</td>
<td>206</td>
</tr>
<tr>
<td></td>
<td>Toponymy</td>
<td>207</td>
</tr>
</tbody>
</table>
Anchorages ................................................................. 208
Trading and coastal shipping routes ......................................................... 209
Flora and fauna resource sites ............................................................... 209
Stockpile/ cache sites ........................................................................ 210
Sealers’ camps ..................................................................................... 210
Colonial shore whaling stations .............................................................. 211
Middle Island ...................................................................................... 211
Barrier Anchorage, Cape Arid ............................................................... 211
Thomas Fishery, Cape Arid ................................................................ 219
Bay whaling sites ................................................................................ 221
Rossiter Bay, Mississippi (1840) ............................................................. 221
Hawes Island, Barrier Anchorage, Middle Island, Hamilton and Julian (1840) ...... 222
Point Malcolm, Julian (1840) ................................................................. 227
Whaling lookouts ................................................................................ 229
Goose Island ...................................................................................... 230
Cairns and survey marks ..................................................................... 233
Shipwrecks and underwater cultural heritage (UCH) sites ..................... 234
Belinda (1824), Middle Island .............................................................. 235
Mountaineer (1835) ........................................................................... 235
Tagon Bay Unidentified ..................................................................... 236
Emily Downing whaleboat (1882) ....................................................... 238
Mary Ann (1868), Bellinger Island ...................................................... 239
Whalebone deposits .......................................................................... 239
Shipwreck survivor and salvage camps .............................................. 239
Belinda (1824) survivor camp, Middle Island ........................................ 240
Mountaineer (1835) survivor camp, Thistle Cove ................................. 240
SS Penguin (1920) salvage camp, Middle Island .................................. 240
Alexander Bay modified rock shelter .................................................. 240
Aboriginal sites .................................................................................. 241
Lizard traps and whalers’ lookout, Barrier Anchorage, Cape Arid .......... 242
Rock art, Maarbaleerup/ Mount Ridley ship and whale depictions .......... 246
Aboriginal womens’ places ................................................................. 257
Prisons, racial segregation and marooning sites ................................... 257
Gardens .............................................................................................. 257
Salt pans ................................................................. 258
Ballast quarries ......................................................... 258
Historic pathways ..................................................... 258
Smuggling routes ....................................................... 258
Graves .................................................................... 259
Summary ................................................................. 260
Chapter 8 The history and archaeology of Middle Island .......... 263
Background ................................................................ 263
Historical activities .................................................... 265
  Exploration ................................................................ 265
  Sealing .................................................................... 266
  Historic-era Aboriginal occupation .......................... 269
  Whaling ................................................................. 270
  Salt harvesting .......................................................... 275
  Shipwreck salvage ................................................... 281
  Agriculture and pastoralism ....................................... 284
  Proposals for other activities .................................... 286
  Fossicking and site disturbance ............................... 287
  Summary of Middle Island activity phases ............... 289
Archaeological research questions ................................ 290
Archaeological research methods ................................ 291
Description of historical archaeological features and summary of 2006 Middle Island excavation results ........................................ 292
  F001 Stone fireplace ................................................ 295
  F002 Stone hut/ room walls ...................................... 297
  F003 Stone hearth .................................................... 299
  F004 Circular well .................................................. 301
  F005 Stone feature ................................................ 303
  F006 Fireplace and oven ......................................... 307
  F007 Oblong soak well ............................................ 310
  F008 Unidentified stone feature ............................... 312
  F009 Flagstone floor ............................................... 313
  F010 Stone rubble feature ....................................... 316
  F011 Stone edging arrangement .............................. 316
Chapter 9 The history and archaeology of the sealing brig Belinda (1824) .................. 339
Introduction ................................................................................................................. 339
Background .................................................................................................................. 339
History of Belinda and its final voyage ........................................................................ 340
Belinda 1989 finding and 1991 excavation ................................................................. 350
Survivors’ camp ............................................................................................................ 356
Site and artefact analyses ............................................................................................. 356
Archaeological artefact analysis ................................................................................... 357
Artefact registration and cataloguing .......................................................................... 358
Functional analysis ...................................................................................................... 358
Discussion of findings .................................................................................................. 361
Historical background ................................................................................................. 361
Ship construction ......................................................................................................... 362
Salvage and site formation processes .......................................................................... 362
Material culture and social status ................................................................................ 363
Trade and exchange ..................................................................................................... 365

Chapter 10 Investigation of a sealer’s cave at Boxer Island ....................................... 371
Introduction .................................................................................................................. 371
Background .................................................................................................................... 372
Sealskin processing ....................................................................................................... 377
Food preparation ............................................................................................................ 384
Bed ................................................................................................................................. 385
Analysis of the skins ................................................................. 387
Discussion of findings .............................................................. 387
Chapter 11 Discussion and conclusions ...................................... 389
Modelling maritime society and economy on the Southern Ocean frontier .......... 389
  Sealing and whaling—expanding economic and cultural boundaries ............... 390
  Cross-cultural contact—transforming economic, cultural and demographic boundaries .......................................................... 393
The Southern Ocean colonial exchange economy ................................... 395
Transforming the Southern Ocean frontier .......................................... 396
  Phases and environmental overexploitation ....................................... 396
  Administrative institutions—increasing social and economic control ........... 399
Summary .................................................................................. 401
References .................................................................................. 404
Websites ..................................................................................... 442
Primary sources .......................................................................... 443
  Colonial Secretary’s Papers, State Records Office of New South Wales .......... 443
  Mitchell Library Manuscript Series, State Library of New South Wales ........ 444
  State Records Office of Western Australia ........................................... 445
  Pacific Manuscripts Bureau, Australian National University ....................... 447
Appendix A Historical, underwater and Aboriginal archaeological sites identified in the Archipelago of the Recherche ................................................................. 449
  Historical archaeological sites .......................................................... 449
  Shipwrecks and Underwater Cultural Heritage sites .................................. 453
  Aboriginal archaeological sites ......................................................... 454
Appendix B Timeline of human activities on Middle Island ............................ 456
Appendix C Belinda (1824) artefacts functional analysis ................................ 464
  Armament .................................................................................. 464
  Ballast .................................................................................... 467
  Bone ....................................................................................... 468
  Cargo ..................................................................................... 470
  Coins ...................................................................................... 471
  Consumption–beverage .................................................................... 472
  Consumption–food ....................................................................... 473
  Container–beverage ...................................................................... 476
  Container–food storage ................................................................. 478
List of Figures

Figure 1. Map of the ‘British Invasion of Tasmania’. Coloured lines and dots with dates represent the phases and territory affected by arrival of the earliest sealing settlements (red), farmer settlers (green), first convict arrivals (black) and pastoralists (blue) (Our Tasmania n.d.).......................................................... 30

Figure 2. Locations of 19th-century sealing and whaling settlement sites and shore whaling stations in South Australia. Arrows represent the right (black) whale winter migration route (after Clarke 1996: 53).......................................................... 32

Figure 3. Map of Australia’s Southern Ocean frontier showing dates of earliest known sealing sites, settlements, and other places mentioned in text .............................. 33

Figure 4. Archipelago of the Recherche study area................................................................. 34

Figure 5. Diagram of intersecting areas of study between Aboriginal, maritime and historical archaeological research into sealing and whaling in the Archipelago of the Recherche................................................................. 37

Figure 6. Diagram demonstrating the movement and different meanings of artefacts in Indigenous and non-Indigenous social systems in the context of Australian frontier and contact sites (Harrison and Williamson 2002: XIV). ........................................ 47

Figure 7. Cross-cultural contact zones on the Southern Ocean frontier ................................ 52

Figure 8. Core-periphery development models (Bintliff 1996). ................................................ 58

Figure 9. Map showing European whaling settlements and Maori settlements on New Zealand’s south coast prior to 1850 (Coutts 1976). .................................................. 59

Figure 10. ‘Rings of zonation’ demonstrating inland settlement patterns along a coastal frontier as a function of proximity to shipping transport (Nayton 1992). ..... 63

Figure 11. Parker’s (2006: 82) Continuum of Boundary Dynamics used to define the nature of boundaries that define a borderland/ frontier zone.................................................. 64

Figure 12. The Scaddan implement (Dortch and Glover 1983). ................................................. 70

Figure 13. Modified ceramic artefacts collected from Middle Island by Charlie Dortch and Kate Morse in March 1984 (Ross Anderson/WA Museum)........................................ 72

Figure 14. Boundaries marking ‘Tribal’ or ‘dialect’ group territories in the Noongar-speaking or South-western cultural bloc in the South-west of Western Australia (Tindale 1974), re-drawn from Anderson (1984: Figure 10) (Dortch 2002: 8)............ 79

Figure 15. Schematised map of Southwest Western Australian model for hypothetical ‘middle tier’ Aboriginal socio-economic units (dashed bold-line boundaries) with constituent local descent group estates (dashed fine line boundaries), with families’ and bands’ interpenetrative ranges denoted by small arrows (Dortch 2002: 8). ................................................................. 79

Figure 16. Waychinicup Inlet ‘sealers oven’ (Heritage Council of WA, n.d.)......................... 82

Figure 17. Past and present distribution of New Zealand fur seals (Arctocephalus forsteri) and Australian fur seals (Pusillus doriferus) (after Ling 1999).................. 93

Figure 18. Wooden club probably used for sealing on display at Busselton Butter Factory Museum in 2008 (Ross Anderson/WA Museum).................................................. 97

Figure 19. Southern Western Australia marine geomorphic region (Region 6) showing southwest continental shelf (dark blue), continental rise (mid-blue), Albany series of canyons (red) and Abyssal Plain (light blue) (Heap and Harris 2008: 569)........ 97

Figure 20. The Southwest shelf marine region showing location of the Archipelago of the Recherche on the continental shelf (DEH 2008: 77). .................................................. 98

Figure 21. Numbers and percentages of total seal skins harvested (N=1,366,880) from the Australasian region between 1790-1949 (after Ling 1999: 338). ................... 100
FIGURE 22. AUSTRALIAN SEA LION (NEOPHOC A CINEREA) AT DAW ISLAND, ARCHIPELAGO OF THE RECHERCHE (ROSS ANDERSON/WA MUSEUM) .................................................................101
FIGURE 23. AUSTRALIAN SEA LION (NEOPHOC A CINEREA) BREEDING COLONIES AND HAUL-OUT SITES IN WESTERN AUSTRALIA (DATA COURTESY RICHARD CAMPBELL, DEPARTMENT OF PARKS AND WILDLIFE) ..........................................................................................102
FIGURE 24. NEW ZEALAND FUR SEAL (ARCTOCEPHALUS FORSTERI) (PHOTO: OZWILDLIFE) ..............103
FIGURE 25. NEW ZEALAND FUR SEAL (ARCTOCEPHALUS FORSTERI) BREEDING COLONIES AND HAUL OUT SITES IN WESTERN AUSTRALIA (DATA COURTESY RICHARD CAMPBELL, DEPARTMENT OF PARKS AND WILDLIFE) ..........................................................................................104
FIGURE 26. SOUTHERN RIGHT WHALE AND HUMBACK WHALE MIGRATORY PATTERNS, FEEDING AND BREEDING GROUNDS IN THE AUSTRALASIAN/ ANTARCTIC REGION (INTERNATIONAL FUND FOR ANIMAL WELFARE).................................................................106
FIGURE 27. DISTRIBUTION (MIGRATION) AND AGGREGATION AREAS OF THE SOUTHERN RIGHT WHALE (AFTER DEH AND NHT 2005b) ........................................................................................................107
FIGURE 28. HUMBACK WHALE MIGRATION ROUTES AND AGGREGATION AREAS ......................................109
FIGURE 29. DETAIL OF TOWNSHEND’S WORLD CHART ‘DISTRIBUTION OF THE SPERM WHALE BASED ON LOGBOOK RECORDS DATING FROM 1761 TO 1920: CHART A APRIL—SEPTEMBER, INCLUSIVE’ (TOWNSHEND 1935: APPENDIX) ...........................................................................................................110
FIGURE 30. MAP OF SOUTHERN OCEAN SHOWING LOCATIONS OF SUB-ANTARCTIC ISLANDS (RICHARDS 2010). ..............................................................................................................136
FIGURE 31. ILLUSTRATION OF SEALERS’ ENCAMPMENT AT BYERS ISLAND, SOUTHERN OCEAN IN THE 1820S (FANNING 1833). .............................................................................................................................................139
FIGURE 32. JOHN WARRROBA PIDGEON IN 1833 (J. GLOVER, TASMANIAN MUSEUM AND ART GALLERY). ........................................................................................................................................................157
FIGURE 33. INDIGENOUS ORAL HISTORY PROVIDED THE PRECISE POSITION OF THE EYE UNIDENTIFIED WRECK AND ASSOCIATED SURVIVOR/ CULTURE-CONTACT ACCOUNT AT MADURA BEACH, IN THE GREAT AUSTRALIAN BIGHT (SCOTT SLEDGE, WA MUSEUM, 1976). .........................................................162
FIGURE 34. ALTMAN’S (2010) VENN DIAGRAM OF ECONOMIC HYBRIDITY REPRESENTING THE CUSTOMARY INDIGENOUS ECONOMY INTERACTING WITH THE STATE AND FREE MARKET ECONOMIES. .............191
FIGURE 35. DIAGRAM ILLUSTRATING THE HYBRID NATURE OF THE SOUTHERN OCEAN FRONTIER EXCHANGE ECONOMY. ........................................................................................................................................192
FIGURE 36. DIAGRAM ILLUSTRATING LINKS BETWEEN THE SOUTHERN OCEAN EXCHANGE ECONOMY, AUSTRALIAN COLONIAL ECONOMY AND GLOBAL MARKET .................................................192
FIGURE 37 KEY MAP OF ARCHIPELAGO OF THE RECHERCHE ........................................................................195
FIGURE 38. MAP 1 - GIS MAP OF ARCHAEOLOGICAL SITES IN WESTERN ARCHIPELAGO OF THE RECHERCHE AREA ........................................................................................................................................196
FIGURE 39. MAP 2 - GIS MAP OF ARCHAEOLOGICAL SITES, CENTRAL ARCHIPELAGO OF THE RECHERCHE INCLUDING CAPE ARID AND MIDDLE ISLAND AREA .................................................................197
FIGURE 40. MAP 3 - GIS MAP OF ARCHAEOLOGICAL SITES, EASTERN ARCHIPELAGO OF THE RECHERCHE INCLUDING ISRAELITE BAY AND EASTERN GROUP AREA ..................................................................................197
FIGURE 41. MIDDLE ISLAND, ASSOCIATED WITH A WUDJARI CREATION STORY, VIEW SOUTH FROM CAPE ARID (ROSS ANDERSON/WA MUSEUM) ...........................................................................................201
FIGURE 42. KALGOORLIE WHALE BONE VERTEBRAL EPIPHYSIS, OUTER SURFACE (LEFT) AND INNER SURFACE (RIGHT), PHOTO: DOUGLAS ELFORD/WA MUSEUM (FROM DORTCH 1988: 146). ...............202
FIGURE 43. GEGELUP (POINT LORENSEN) IS A COASTAL GRANITE OUTCROP MARKING A GEOLOGICAL, ENVIRONMENTAL AND CULTURAL BOUNDARY BETWEEN WUDJARI AND NGATJUMAYA PEOPLE. (ROSS ANDERSON/WA MUSEUM) ......................................................................................................................203
Figure 45. Map showing locations of whaling grounds in the Australasian/Southeast Asian region (Sources: Dickson 2006: 372; Maury 1935). ........................................ 206
Figure 46. Barrier Anchorage tryworks in 2011, north wall elevation, view south (Ross Anderson/WA Museum). ........................................ 212
Figure 47. Barrier Anchorage whalers lookout in 2011, view west (Ross Anderson/WA Museum). ........................................ 212
Figure 48. Blue and white ceramic fragment and a chert proximal flake fragment at Barrier Anchorage in 2011 (Ross Anderson/WA Museum). ........................................ 213
Figure 49. GIS map of Barrier Anchorage area archaeological sites ........................................ 214
Figure 50 GIS map of Barrier Anchorage whaling station sites ........................................ 214
Figure 51. A stone feature north, and downslope of Barrier Anchorage lookout in 2011, possibly used as a fireplace (Ross Anderson/WA Museum). ........................................ 215
Figure 52. Author’s impression of Barrier Anchorage shore whaling station in 1870 (Ross Anderson). ........................................ 216
Figure 53. Cape Arid west whalers’ lookout in 2011, view northwest with tors in background (Ross Anderson/WA Museum). ........................................ 217
Figure 54. Cape Arid west whalers’ lookout in 2011, view west with Barrier Anchorage in background (Ross Anderson/WA Museum). ........................................ 218
Figure 55. Cape Arid west whalers lookout in 2011, east elevation (Ross Anderson/WA Museum). ........................................ 218
Figure 56. Remains of limpet shells found near Cape Arid west whalers lookout in 2011 (Ross Anderson/WA Museum). ........................................ 219
Figure 57. An abandoned whaling try pot from Thomas Fishery at Moonginette/Lynburn Station in 2011 (Ross Anderson/WA Museum). ........................................ 220
Figure 58. Captain Hawes’ sketch map of Middle Island and Cape Arid area inserted in the Logbook of the American Whaleship Hamilton (PMB 687) ........................................ 223
Figure 59. Detail of Captain Hawes’ chart showing ‘Hawes Island Lookout’ in Barrier Anchorage and ‘North Lookout’ on Cape Arid in the vicinity of Thomas Fishery (PMB 687) ........................................ 224
Figure 60. Detail of Hawes Island lookout view northwest with Barrier Anchorage in the background (Nicolas Bigourdan/WA Museum). ........................................ 225
Figure 61. Map of Hawes Island archaeological features ........................................ 226
Figure 62. Butchered sheep bones are likely evidence of provisions consumed by the Hamilton’s crew camped on Hawes Island in 1840 (Ross Anderson/WA Museum). ........................................ 227
Figure 63. Map showing clustering of shore and bay whaling lookouts overlooking the natural pinch point of Arid Strait, created by Cape Arid and Middle Island. ........................................ 229
Figure 64. Map of archaeological sites on Goose Island ........................................ 230
Figure 65. Goose Island cairn (GI/F002) with Flinders Peak, Middle Island in the background, view southwest, 2011. (Ross Anderson/WA Museum). ........................................ 231
Figure 66. Goose Island stone arrangement (GI/F001) possibly a collapsed windbreak. Cairn (GI/F002) is visible in background, view west (Ross Anderson/WA Museum). ........................................ 232
Figure 67. Goose Island walled lookout (GI/F004) view east over Goose Island Bay (Ross Anderson/WA Museum). ........................................ 232
Figure 68. Goose Island whalers’ lookout (GI/F004) view north across Arid Strait with Cape Arid in background (Ross Anderson/WA Museum). ........................................ 233
Figure 69. Stone cairn overlooking entrance channel to Barrier Anchorage, possibly a hydrographic survey mark, view southeast (Ross Anderson/WA Museum). ........................................ 234
Figure 70. Map showing the approximate location of the Tagon Bay Unidentified wreck site ........................................ 237
Figure 71. Alexander Bay rock shelter (Photographer and date unknown, ca. 1980s, courtesy Esperance Bay Historical Society). ........................................ 241
Figure 72. Lizard trap located near Barrier Anchorage whalers lookout, view southeast (Ross Anderson/WA Museum). ......................................................... 243
Figure 73. Gabbie Kylie Foundation field school participant Lyn Rudder recording a second lizard trap near Barrier Anchorage lookout (Ross Anderson/WA Museum). ......................................................... 244
Figure 74. GIS map showing locations of Barrier Anchorage lookout in relation to lizard traps. ........................................................................................................ 245
Figure 75 GIS map showing locations of Aboriginal sites possibly related to sealing and whaling activities. ...................................................................................... 246
Figure 76. Mid-period red ochre motifs numbered by Gunn (2008: 32) on Panel J MR-01 rock shelter, Maarbeleeup/ Mount Ridley. Motif 26 is a whale and motif 32 is a ship/ vessel depiction (Gunn 2008: 32). ....................................................................... 247
Figure 77. D-stretch image of MR-01 panel of ship and whale showing different colours and stages of superimposition (D-stretch image by Jo McDonald/ UWA, courtesy Gabbie Kylie Foundation). ................................................................. 248
Figure 78. Dead humpback whale on flensing deck of a Californian shore whaling station showing belly ridges (Stark 1923: 30). .......................................................................... 250
Figure 79. Interpretation of vessel features following Gunn’s record of mid-period motifs on Panel J MR-01 (Gunn 2008: 32). ......................................................................... 251
Figure 80. Image of whaleboats under sail. Note jib (front) and gaff-rigged lug sail, and steering oar at stern (Ashley 1991). ........................................................................................................ 252
Figure 81. ‘Whalers off Twofold Bay, New South Wales’ depicting whaleboats chasing a whale, note steering oar at stern (Oswald Brierly, Art Gallery of New South Wales). ........................................................................................................ 252
Figure 82. Possible ship depiction painted in red ochre at Boyatup (Ross Anderson/WA Museum). .................................................................................................................. 254
Figure 83. Aerial view of Middle Island looking southwest, Goose Island at right of picture (Graham Gath). .................................................................................. 263
Figure 84. GIS map of Middle Island and Goose Island archaeological sites. ................. 264
Figure 85. Solar evaporated salt crust at Lake Hillier, Middle Island (Ross Anderson/WA Museum). ............................................................................................................. 275
Figure 86. Sketch plan of salt harvesting (550/152) and infrastructure (549/152) leases on Middle Island held by E.J. McCarthy between 1903-05 (SROWA WAS 1903/3124). .... 278
Figure 87. Surveyor White’s 1914 compass traverse plan of Lake Hillier (SROWA WAS 1903/3124). .................................................................................................................. 279
Figure 88. Detail of Surveyor White’s plan with structures marked northwest of Lake Hillier including a 12’ x 10’ room, two wells and a shed frame (SROWA WAS 1903/3124). ........................................................................................................ 280
Figure 89. Wreck of SS Penguin (1920) at Middle Island with bow section in foreground, engine and boiler visible in background (Photographer and date unknown, possibly 1950-60/WA Museum). ..................................................................................... 282
Figure 90. Stone hearth (F003) in 2001 showing evidence of disturbance by fossickers (Patrick Baker/WA Museum). ............................................................................. 289
Figure 91. GIS map of archaeological features and artefacts recorded at Middle Island historic site in 2006 (Paterson and Souter 2006: 20). .......................................................... 292
Figure 92. Middle Island historic site main precinct with key features numbered (Ross Anderson UWA/WAM 2006). .................................................................................. 293
Figure 93. Stone fireplace (F001) view west (UWA/WAM 2006). ...................................... 295
Figure 94. Alistair Paterson recording square J21 with fireplace (F001) in background (UWA/WAM 2006). .......................................................... 296
Figure 95. North section of square J21 ............................................................................... 296
FIGURE 96. LOW STONE WALLS FORMING A ROOM (F002) WITH FLAGSTONE FLOOR (F009) (UWA/WAM 2006). ................................................................. 297
FIGURE 97. PLAN OF ZONE 2 DEPICTING FEATURES F002 LOW STONE WALLS, F003 STONE HEARTH, F009 FLAGSTONE FLOOR, AND EXCAVATED SQUARE P33 (ROSS ANDERSON, AFTERTY SEAN MCKAY AND SAM BOLTON) (UWA/WAM 2006). ........................................... 298
FIGURE 98. WOODEN-FRAMED CANVAS TENT WITH IN-FILLED ADobe BRICK WALLS IN VICTORIA CIRCA 1850s (LEWIS 1977). ......................................................................... 299
FIGURE 99. STONE FIREPLACE/ HEARTH (F003) WITH FLAGSTONE FLOOR (F009), VIEW NORTHWEST (F009) (UWA/WAM 2006) ................................................................................................. 300
FIGURE 100. F003 HEARTH AFTER CLEARING AND BEFORE EXCAVATION, VIEW SOUTHEAST (UWA/WAM 2006). ................................................................. 300
FIGURE 101. F003 HEARTH AT COMPLETION OF EXCAVATION (UWA/WAM 2006). ................................................................. 301
FIGURE 102. STONE LINED WELL F004 (UWA/WAM 2006). ................................................................................................................................. 302
FIGURE 103. INTERIOR VIEW OF WELL F004 IN 1991 (PATRICK BAKER/WA MUSEUM)......................................................... 302
FIGURE 104. FEATURE 5 (F005) VIEW SOUTH PRIOR TO EXCAVATION (UWA/WAM 2006) ................................................................. 304
FIGURE 105. VIEW NORTH SHOWING ALIGNMENT OF WALL FOUNDATIONS IN SQUARE K12 (FOREGROUND), WITH STONE WALL F005 AND FIREPLACE F001 IN LEFT BACKGROUND. SQUARES K16 AND K19 ARE VISIBLE IN THE CENTRE BACKGROUND (UWA/WAM 2006) ......................................................................................................................... 305
FIGURE 106. SQUARE K12 SHOWING INTACT BURIED WALL FOUNDATIONS AT COMPLETION OF EXCAVATION, VIEW WEST (UWA/WAM 2006) ......................................................................................................................... 305
FIGURE 107. SQUARE K12 NORTH SECTION (UWA/WAM 2006). ................................................................................................. 306
FIGURE 108. STONE COMBINATION OVEN/ FIREPLACE (F006) AFTER CLEARING, VIEW NORTH (UWA/WAM 2006). ................................................................. 308
FIGURE 109. PLAN OF FIREPLACE AND OVEN (F006) SHOWING THE TWO COMPARTMENTS, AND LOCATION OF 1M GRID SQUARE K11 (ROSS ANDERSON UWA/WAM 2006). ......................................................................................................................... 308
FIGURE 110. SHALLOW OBLONG SOAK WELL (F007) VIEW SOUTH (UWA/WAM 2006). ................................................................. 311
FIGURE 111. SHALLOW OBLONG WELL (F007) (UWA/WAM 2006). ................................................................................................................................. 312
FIGURE 112. F008 WITH F005 IN BACKGROUND, F001 JUST VISIBLE IN TOP RIGHT BACKGROUND (UWA/WAM 2006). ......................................................................................................................... 312
FIGURE 113. FLAGSTONE FLOOR (F009) WITH SQUARE P33 BEING EXCAVATED IN CENTRE, VIEW SOUTH (UWA/WAM 2006). ......................................................................................................................... 313
FIGURE 114. DISINTEGRATED WHALE VERTEBRA (UWA/WAM 2006). ................................................................................................. 314
FIGURE 115. STONE FIREPLACE F001 WITH STONE FEATURE F010 IN FOREGROUND, VIEW SOUTHEAST (UWA/WAM 2006). ......................................................................................................................... 316
FIGURE 116. POSSIBLE GARDEN BED OR ANIMAL ENCLOSURE EDGING (F011) (UWA/WAM 2006). ......................................................................................................................... 317
FIGURE 117. CORRODED AND BROKEN IRON SPADE (ROSS ANDERSON/WA MUSEUM). ......................................................................................................................... 318
FIGURE 118. CORRODED ADZE OR MATTOCK (ROSS ANDERSON/WA MUSEUM). ......................................................................................................................... 318
FIGURE 119. IRON SPADE OVERLYING BLADED TOOLS, POSSIBLY MACHETES (ROSS ANDERSON/WA MUSEUM). ......................................................................................................................... 318
FIGURE 120. SIDE VIEW OF SPADE OVERLYING BLADED TOOLS, POSSIBLY MACHETES (ROSS ANDERSON/WA MUSEUM). ......................................................................................................................... 318
FIGURE 121. TOOL CACHE EXCAVATION 2 X 2M SQUARE AFTER SURFACE CLEARING, WITH 50 X 50 CM TEST PIT IN NE CORNER, VIEW NORTH (ROSS ANDERSON, WA MUSEUM). ......................................................................................................................... 319
FIGURE 122. GARDEN BED FORMED WITH STONE SLABS AND LOOSE SOIL BUILT UP BEHIND GNAMMA HOLE DAM WALL IN 2012. SCALE IS 2M. (ROSS ANDERSON/WA MUSEUM). ......................................................................................................................... 321
FIGURE 123. GABRIELLE KYLE FIELDWORK PARTICIPANT AMY DE LA SALE AND ARCHAEOLOGIST DAVID GULLFOYLE SURVEYING F013 IN 2012 (ROSS ANDERSON/WA MUSEUM). ......................................................................................................................... 321
FIGURE 124. GAIL YORKSHIRE-SLEBY WITH LEAD SHOT AND 1950 THREE PENCE COIN (ROSS ANDERSON/WA MUSEUM). ......................................................................................................................... 322
FIGURE 125. LEAD MUSKET OR PISTOL SHOT SHOWING MOULDING MARKS AND SPRUES (ROSS ANDERSON/WA MUSEUM). ......................................................................................................................... 322

xix
Figure 126. 1950 three pence coin (Ross Anderson/WA Museum).................................322
Figure 127. Glazed white ceramic dish fragments scatter on granite outcrop (Ross
Anderson/WA Museum)..................................................................................................322
Figure 128. A hot day at ‘Victoria Park’ shack in December 1975 (Courtesy Hay
Family) ....................................................................................................................................323
Figure 129. Belinda Beach mast (Ross Anderson/WA Museum) ........................................324
Figure 130. End of mast showing evidence of chopping. Newly cut material is for timber
sample (Ross Anderson/WA Museum)................................................................................324
Figure 131. Map of east end of Belinda Beach, Middle Island showing shipwreck sites and
other features ........................................................................................................................325
Figure 132. Corroding remains of light railway tram lines, tram wheel and wooden tram
cart frame with iron axle on western edge of Lake Hillier (UWA/WAM 2006) .........327
Figure 133. Author’s impression of Middle Island shore whaling station/ maritime
frontier settlement circa mid-late 1840s (Ross Anderson) .............................................334
Figure 134. Alexander Berry (Image GP01/33012, State Library of NSW) .........................342
Figure 135. Naval colonial port clearance document dated 24 January 1824 giving
permission for Berry and Wollstonecraft’s sloop Water Mole to sail to ‘Basses
Straits’ to load a cargo of skins (SLNSW MLMSS 315/3). ..............................................344
Figure 136. ‘Adventue for Brig Belinda’ showing Debits column in Berry and
Wollstonecraft’s double entry financial ledger (Ledger Nov. 1821-Dec. 1828, pp.
117-118, SLNSW MLMSS 315/10) ......................................................................................345
Figure 137. Auction notice for Belinda material salvaged by William Young, master of
Liberty (SNSW 29/1826: 1) ................................................................................................350
Figure 138. 1989 Belinda site plan (Graeme Henderson/WA Museum) ................................352
Figure 139. Underwater view of the Belinda wreck site in 1991 looking east showing the 3
× 1m excavation grid used. Note calcarenite beach rock formation at right (south)
of image. (Patrick Baker/WA Museum) .............................................................................352
Figure 140. Belinda photomosaic using 1m grid square for scale (Patrick Baker/WA
Museum) ..............................................................................................................................353
Figure 141. Belinda site plan traced from 1991 photomosaic (Ross Anderson/WA
Museum) .............................................................................................................................354
Figure 142. Belinda site sanded up in 2011 showing exposed concretions and ballast rock
(Ross Anderson/WA Museum) ............................................................................................355
Figure 143. Small scraps of molten lead (BEL133) are evidence of burning for salvage
(Ross Anderson/WA Museum) ............................................................................................362
Figure 144. Author’s impression of Belinda the day after being blown ashore on Middle
Island, with Lake Hillier and Flinders Peak visible in the background. (Ross
Anderson) ..............................................................................................................................364
Figure 145. Folded scrap lead sheet BEL241 with tack holes (Ross Anderson/WA
Museum) .............................................................................................................................366
Figure 146. Folded scrap lead sheet BEL111 with tack holes (Ross Anderson/WA
Museum) .............................................................................................................................366
Figure 147. Molten scrap lead worked into a semi-circular shaped ingot BEL172 (Ross
Anderson/WA Museum) .....................................................................................................366
Figure 148. Lead ingot BEL112 with evidence of cutting (Ross Anderson/WA Museum). 367
Figure 149. George III 1797 copper penny (BEL7) (Ross Anderson/WA Museum). ........368
Figure 150. Chinese cash coin (BEL8) (Ross Anderson/WA Museum) ................................368
Figure 151. Wound green glass bead, scale 1cm (Ross Anderson/WA Museum). ..........369
Figure 152. Map of Boxer Island showing location of Sealer’s cave ................................371
Figure 153. Exterior of Sealer’s cave entrance, view west (Ross Anderson/WA Museum).
.................................................................................................................................372
FIGURE 154. ESPERANCE BAY HISTORICAL SOCIETY MEMBERS MERV ANDRE, KARINA MITCHELL, DANELL CAMERON AND JOHN ROBERTSON RECOVERING SEALSKINS FROM BOXER ISLAND CAVE IN JUNE 2005 (ESPERANCE BAY HISTORICAL SOCIETY) ............................................................ 373


FIGURE 156. INTERIOR OF SEALER’S CAVE IN 2006 SHOWING CANVAS SAILCLOTH, SEALSKIN BOX, BED FRAME AND WOODEN SHELF IN FAR RIGHT CORNER (ROSS ANDERSON/WA MUSEUM) ......................................................................................................................... 375

FIGURE 157. CANVAS SAILCLOTH WITH COPPER ALLOY GROMMETS AND ROPE STILL ATTACHED (ROSS ANDERSON/WA MUSEUM). ........................................................................................................................................ 375

FIGURE 158. INTERIOR VIEW OF CAVE IN JUNE 2005 WITH SEALSKINS IN SITU. BAKING TINS ARE VISIBLE ON THE CAVE FLOOR IN THE BACKGROUND, WITH CANVAS SAILCLOTH IN FOREGROUND (ESPERANCE BAY HISTORICAL SOCIETY). ............................................................................................................................. 376

FIGURE 159. CONGEALED LUMP OF SALT WITH REMAINS OF PINE TIMBER BOX (ROSS ANDERSON/WA MUSEUM). ........................................................................................................................................ 377

FIGURE 160. BEAMING TECHNIQUE USED FOR D EUBLUBBERING SEALSKINS ON ST PAUL’S ISLAND, ALASKA IN 1946 (V.B. SCHEFFER/ NOAA). ........................................................................................................................................ 378

FIGURE 161. IN SITU BUNDLES OF SEALSKINS AS FOUND IN JUNE 2005 (ESPERANCE BAY HISTORICAL SOCIETY). ........................................................................................................................................ 379


FIGURE 163. ILLUSTRATION OF KENCHES (SALT-CURING BINS) IN A LARGE-SCALE KENCHING PROCESS IN A SALT-HOUSE AT ST PAUL’S ISLAND, ALASKA IN 1872 (ELLISOT 1882: 77). ......................................................................................................................... 381

FIGURE 164. KENCHING PROCESS OF SALTING FUR SEAL SKINS IN ALASKA IN 1946. NOTE PLANKED UP SIDES AND STANCHIONS OF THE KENCH (V.B. SCHEFFER, NOAA). ..................................................................................................................................... 381

FIGURE 165. DETAIL OF CHLORIDE CRYSTALS ON EXTERIOR, HAIRY SIDE OF BOXER ISLAND SEAL SKIN (CARMELA CORVAIA/WA MUSEUM). ........................................................................................................................................ 382

FIGURE 166. ILLUSTRATION OF A BUNDLE OF TWO FUR SEAL SKINS TIED WITH CORDAGE FOR TRANSPORT TO THE LONDON MARKET (ELLISOT 1882: 77). ..................................................................................................................................... 383

FIGURE 167. VIEW OF BOXER ISLAND SEALSKIN BOX ROLLED INTO A BUNDLE (ESPERANCE BAY HISTORICAL SOCIETY). ........................................................................................................................................ 383

FIGURE 168. TWO NESTED METAL BAKING TINS PRIOR CONSERVATION TREATMENT (JOHN CARPENTER/WA MUSEUM). ........................................................................................................................................ 384

FIGURE 169. DETAIL OF BED FRAME TOP TIMBERS SHOWING REMNANT PAINT ON RECYCLED TONGUE AND GROOVE BOARD AND HESSIAN (ROSS ANDERSON/WA MUSEUM). ..................................................................................................................................... 386

FIGURE 170. DETAIL OF REMNANT SEALSKIN FASTENED IN PLACE WITH IRON NAIL IN BEDFRAME (ROSS ANDERSON/WA MUSEUM). ..................................................................................................................................... 386

FIGURE 171. COLONIAL EXPANSION ALONG THE SOUTHERN OCEAN FRONTIER (ROSS ANDERSON). ..................................................................................................................................... 391

FIGURE 172. MUSKET SHOT ..................................................................................................................................... 465

FIGURE 173. BIRD SHOT ..................................................................................................................................... 465

FIGURE 174. DETAIL FROM ILLUSTRATION OF A SEALERS’ CAMP AT BYERS ISLAND IN THE SOUTHERN OCEAN IN THE 1820S. MATERIAL CULTURE INCLUDES FLINTLOCK MUSKET, SHEATH KNIVES, SPEARS (OR ‘STEEPS’), AND WHALE VERTEBRAE TABLE OR CHOPPING BLOCK (FANNING 1833) ..................................................................................................................................... 466

FIGURE 175. SCATTERPLOT OF SHOT WEIGHT (X) BY DIAMETER (Y). ..................................................................................................................................... 467

FIGURE 176. GRAPH COMPARING SHOT TYPE BY TOTAL WEIGHT, N=1213 ..................................................................................................................................... 467

FIGURE 177. FLINT NODULE BEL5133 (ROSS ANDERSON/WA MUSEUM) ..................................................................................................................................... 468

FIGURE 178. BUTCHERED FAUNAL BONE BEL5129 (ROSS ANDERSON/WA MUSEUM). ..................................................................................................................................... 469

FIGURE 179. FAUNAL BONES AND FRAGMENTS, WITH EVIDENCE OF BUTCHERING (BEL5132) (ROSS ANDERSON/WA MUSEUM). ..................................................................................................................................... 470

FIGURE 180. CHOPPED TIMBER POSSIBLY USED FOR DUNNAGE OR FIREWOOD (ROSS ANDERSON/WA MUSEUM). ..................................................................................................................................... 471
Figure 181. Blue and white transfer ware dish (BEL274) with geometric floral border (Ross Anderson/WA Museum) ...........................................................................................................475

Figure 182. Willow pattern ‘Two Temples’ design cup or small jug (BEL157-008) and ovoid serving dish (BEL157-002) with sherds (Ross Anderson/WA Museum) ...........................................475

Figure 183. Large glazed stoneware storage container (BEL63b) (Ross Anderson, WA Museum) ............................................................................................................................................478

Figure 184. Fragments of coal with iron staining (Ross Anderson/WA Museum) ..................480

Figure 185. Decorative handle BEL15 possibly from a navigational/mathematical instrument (Ross Anderson/WA Museum) .................................................................481

Figure 186 Buttons BEL251a-g .................................................................................................484

Figure 187 Wooden button BEL5136 ..................................................................................484

Figure 188 Bone button BEL5138 ....................................................................................484

Figure 189 Brass button with number ‘9’ and encircling wreath BEL98 .........................484

Figure 190 Metal and enamel button BEL190 ......................................................................484

Figure 191 Reverse of brass coat button BEL202 showing loop attachment .................484

Figure 192. Leather inner shoe sole BEL99 (Ross Anderson/WA Museum) .......................485

Figure 193. Detail of BEL266 ragged dog spike or brad (Ross Anderson/WA Museum). ...487

Figure 194. Copper alloy through bolt (Ross Anderson/WA Museum) ...............................488

Figure 195. Cench ring (BEL8) (Dena Garratt/WA Museum) ..............................................488

Figure 196. Dump bolt (BEL6b) (Dena Garratt/WA Museum) ...........................................488

Figure 197. Copper alloy sheathing with tack holes (BEL3550) (Ross Anderson/WA Museum) .....................................................................................................................491

Figure 198. Furniture handle and bracket (BEL123) (Ross Anderson/WA Museum) ..........494

Figure 199. Possible lead claque weight from a pump BEL3574 (Ross Anderson/WA Museum) ..........................................................................................................................495

Figure 200. Single pulley pendant block (BEL72) (Ross Anderson/WA Museum) ..............496

Figure 201. Served and parcelled pulley strop (BEL323) (Ross Anderson, WA Museum) ...496

Figure 202. Grindstone (BEL319) (Ross Anderson/WA Museum) .......................................497

Figure 203. Wooden fishing net float (Ross Anderson/WA Museum) ..................................498

Figure 204. Combined side views of quill BEL204 cut for a right-handed person (Ross Anderson/WA Museum) .................................................................499

List of Tables

Table 1 Summary of archaeological surveys and excavations relating to historical activities in the Recherche Archipelago .................................................................124

Table 2: Items and their values traded in Bass Strait 1802-1833 .....................................186

Table 3 Major phases of visitation and occupation on Middle Island .............................289

Table 4 Interpretation of Middle Island features....................................................................336

Table 5. Selected functional categories for Belinda shipwreck artefacts in alphabetical order, including maritime functions .................................................................359
### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGNSW</td>
<td>Art Gallery of New South Wales</td>
</tr>
<tr>
<td>b.</td>
<td>built</td>
</tr>
<tr>
<td>BP</td>
<td>Before Present</td>
</tr>
<tr>
<td>ca.</td>
<td>circa</td>
</tr>
<tr>
<td>CALM</td>
<td>Department of Conservation and Land Management</td>
</tr>
<tr>
<td>cm</td>
<td>centimetres</td>
</tr>
<tr>
<td>Co.</td>
<td>Company</td>
</tr>
<tr>
<td>Cons.</td>
<td>Consignment</td>
</tr>
<tr>
<td>CRM</td>
<td>Cultural Resource Management</td>
</tr>
<tr>
<td>CSIRO</td>
<td>Commonwealth Scientific and Industrial Research Organisation</td>
</tr>
<tr>
<td>CSP</td>
<td>Colonial Secretary’s Papers</td>
</tr>
<tr>
<td>CSO</td>
<td>Colonial Secretary’s Office</td>
</tr>
<tr>
<td>CSR</td>
<td>Colonial Secretary’s Records</td>
</tr>
<tr>
<td>cwt</td>
<td>hundredweight</td>
</tr>
<tr>
<td>d</td>
<td>penny</td>
</tr>
<tr>
<td>DEC</td>
<td>Department of Environment and Conservation</td>
</tr>
<tr>
<td>DEH</td>
<td>Department of Environment and Heritage</td>
</tr>
<tr>
<td>DAA</td>
<td>Department of Aboriginal Affairs</td>
</tr>
<tr>
<td>DMA</td>
<td>Department of Maritime Archaeology</td>
</tr>
<tr>
<td>DNA</td>
<td>deoxyribonucleic acid</td>
</tr>
<tr>
<td>DPaW</td>
<td>Department of Parks and Wildlife</td>
</tr>
<tr>
<td>EIC</td>
<td>East India Company</td>
</tr>
<tr>
<td>GDA94</td>
<td>Geocentric Datum of Australia 1994</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographical Information System</td>
</tr>
<tr>
<td>GKF</td>
<td>Gabbie Kylie Foundation</td>
</tr>
<tr>
<td>GPS</td>
<td>Global Positioning System</td>
</tr>
<tr>
<td>HCWA</td>
<td>Heritage Council of Western Australia</td>
</tr>
<tr>
<td>HMS</td>
<td>His Majesty’s Ship</td>
</tr>
<tr>
<td>kg</td>
<td>kilograms</td>
</tr>
<tr>
<td>km</td>
<td>kilometres</td>
</tr>
<tr>
<td>lbs</td>
<td>pounds</td>
</tr>
<tr>
<td>m</td>
<td>metres</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>MIR</td>
<td>Middle Island Recherche (artefact registration number prefix)</td>
</tr>
<tr>
<td>MLMSS</td>
<td>Mitchell Library Manuscript Series</td>
</tr>
<tr>
<td>MNV</td>
<td>minimum number of vessels</td>
</tr>
<tr>
<td>mm</td>
<td>millimetres</td>
</tr>
<tr>
<td>NHT</td>
<td>National Heritage Trust</td>
</tr>
<tr>
<td>NOAA</td>
<td>National Oceanic and Atmospheric Administration</td>
</tr>
<tr>
<td>NSW</td>
<td>New South Wales</td>
</tr>
<tr>
<td>NTWA</td>
<td>National Trust (Western Australia)</td>
</tr>
<tr>
<td>OIC</td>
<td>officer in charge</td>
</tr>
<tr>
<td>PhD</td>
<td>Doctor of Philosophy</td>
</tr>
<tr>
<td>PMB</td>
<td>Pacific Manuscripts Bureau</td>
</tr>
<tr>
<td>ppm</td>
<td>parts per million</td>
</tr>
<tr>
<td>s</td>
<td>shillings</td>
</tr>
<tr>
<td>SLNSW</td>
<td>State Library of New South Wales</td>
</tr>
<tr>
<td>SRONSW</td>
<td>State Records Office of New South Wales</td>
</tr>
<tr>
<td>SROWA</td>
<td>State Records Office of Western Australia</td>
</tr>
<tr>
<td>SS</td>
<td>screw steamship</td>
</tr>
<tr>
<td>UCH</td>
<td>underwater cultural heritage</td>
</tr>
<tr>
<td>UWA</td>
<td>University of Western Australia</td>
</tr>
<tr>
<td>VDL</td>
<td>Van Diemen’s Land</td>
</tr>
<tr>
<td>WA</td>
<td>Western Australia</td>
</tr>
<tr>
<td>WAM</td>
<td>Western Australian Museum</td>
</tr>
<tr>
<td>WAS</td>
<td>Western Australian Series</td>
</tr>
<tr>
<td>WGS84</td>
<td>World Geodetic System 1984</td>
</tr>
<tr>
<td>XRF</td>
<td>X-Ray Fluorescence</td>
</tr>
</tbody>
</table>
Newspapers

<table>
<thead>
<tr>
<th>Code</th>
<th>Newspaper Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE</td>
<td>Adelaide Express</td>
</tr>
<tr>
<td>Aust</td>
<td>The Australian</td>
</tr>
<tr>
<td>C</td>
<td>The Courier</td>
</tr>
<tr>
<td>Ch</td>
<td>The Chronicle</td>
</tr>
<tr>
<td>CC</td>
<td>Cornwall Chronicle</td>
</tr>
<tr>
<td>CT</td>
<td>Colonial Times</td>
</tr>
<tr>
<td>CTTA</td>
<td>Colonial Times and Tasmanian Advertiser</td>
</tr>
<tr>
<td>EE</td>
<td>Esperance Express</td>
</tr>
<tr>
<td>EMP</td>
<td>Empire</td>
</tr>
<tr>
<td>GG</td>
<td>Government Gazette</td>
</tr>
<tr>
<td>HC</td>
<td>Hobart Courier</td>
</tr>
<tr>
<td>HTC</td>
<td>The Hobart Town Courier</td>
</tr>
<tr>
<td>HTCVDLG</td>
<td>Hobart Town Courier and Van Diemen’s Land Gazette</td>
</tr>
<tr>
<td>HTGVDLA</td>
<td>Hobart Town Gazette and Van Diemen’s Land Advertiser</td>
</tr>
<tr>
<td>Inq</td>
<td>The Inquirer</td>
</tr>
<tr>
<td>ICN</td>
<td>The Inquirer and Commercial News</td>
</tr>
<tr>
<td>KM</td>
<td>Kalgoorlie Miner</td>
</tr>
<tr>
<td>LA</td>
<td>Launceston Advertiser</td>
</tr>
<tr>
<td>OMA</td>
<td>Ovens and Murray Advertiser</td>
</tr>
<tr>
<td>PGIJPN</td>
<td>Perth Gazette and Independent Journal of Politics and News</td>
</tr>
<tr>
<td>PGWAJ</td>
<td>Perth Gazette and Western Australian Journal</td>
</tr>
<tr>
<td>Reg</td>
<td>The Register</td>
</tr>
<tr>
<td>SA</td>
<td>The Southern Australian</td>
</tr>
<tr>
<td>SAA</td>
<td>The South Australian Advertiser</td>
</tr>
<tr>
<td>SAGCR</td>
<td>South Australian Gazette and Colonial Register</td>
</tr>
<tr>
<td>SAR</td>
<td>South Australian Register</td>
</tr>
<tr>
<td>SGNSWA</td>
<td>The Sydney Gazette and New South Wales Advertiser</td>
</tr>
<tr>
<td>SH</td>
<td>The Sydney Herald</td>
</tr>
<tr>
<td>SRG</td>
<td>The Swan River Guardian</td>
</tr>
<tr>
<td>ST</td>
<td>Sunday Times (Perth)</td>
</tr>
<tr>
<td>SM</td>
<td>The Sydney Monitor</td>
</tr>
<tr>
<td>WA</td>
<td>The West Australian</td>
</tr>
<tr>
<td>WAJ</td>
<td>Western Australian Journal</td>
</tr>
</tbody>
</table>
Chapter 1 | Introduction

This thesis aims to explain the development of early, informal maritime industries and cross-cultural society in the Archipelago of the Recherche. In order to do this it is first necessary to place the Archipelago in its regional, national and global context. Sealing and whaling activities played a vital, formative role in the early exploration, colonisation and economic development of Australia and New Zealand. Prior to the arrival of the First Fleet in 1788, one of the inducements for private ship owners to transport convicts to Australia was permission to access the Canton market strictly controlled by the East India Company, to obtain return cargoes of silk, spice and other China goods. Some ship owners capitalised on this access to the richest market in the world and the Chinese demand for luxury furs by sending their ships to the Northwest coast of America to obtain sea otter furs (Richards 2010: 174), to Fiji for sandalwood and to the Southern Ocean to procure fur seal skins (Gill 1967: 218; Hainsworth 1967).

As soon as their convicts were disembarked, two whalers that sailed as part of the 1788 First Fleet and five ships of the 1791 Third Fleet sailed out of Sydney Cove to seek fortunes in the rich South Seas whaling grounds (Lawrence and Staniforth 1998: 7). As one example, following discharge of its cargo of stores at Port Jackson in 1791, the transport Britannia, went whaling in the South Seas. Returning to Port Jackson in 1792, under Captain Raven Britannia sailed to Dusky Sound, New Zealand to drop off a sealing gang, returning shortly afterwards in November 1793 to collect fur seal skins for the China market (Gill 1967: 220-221). A total of five convict transports were converted to operate as Australian-based whalers, while thirteen British-based transports went whaling following their outward voyages (Pearson 1998: 93). Whaling equipment was supplied to First Fleet vessels as part of their stores, with evidence of whaling equipment found on the wreck site of HMS Sirius (1790) at Norfolk Island (Stanbury 1994: 88).

Whale oil was the first product exported from Australia and was its highest earning export commodity until the 1830s, while seal skins were the first staple export that enabled the colony to independently sustain itself (Little 1969; Chatwin 1998: 87;
Lawrence and Staniforth 1998: 7; Smith 2010: 159). By attracting mercantile shipping and trade, sealing and whaling laid the foundations for Port Jackson to become the most important port and financial centre in the South Seas, a position Sydney arguably retains to this day.

Australia may have ‘ridden on the sheep’s back’ during the latter part of the nineteenth century, but this was only made possible by first sliding on the slippery backs of seals and whales, whose products of oil, skin and bone provided exports, raised capital, established merchants, created employment, grew shipping and trading networks, opened up parts of Australia previously unexplored by Europeans and helped to establish and sustain early colonial centres and outlying settlements with regular maritime trade and communications. After the sealing bonanzas in the early decades, whaling continued to be a mainstay of Australia’s economy. In 1832, the *Australian* newspaper reported that the whale ships and wool clips were ‘our national sinews’ (Gibson 1994: 670).

New Zealand mirrored Australia’s early maritime development, with close exploration of its southern coast and island groups made by Port Jackson sealers from 1792. Sealing and shore whaling were the earliest commercial activities in New Zealand, and Australian colonial whalers established most of New Zealand’s shore whaling stations. Between the 1830s and 1840s, shore whaling was the New Zealand’s largest export industry and employer (Prickett 2009: 351, 362; Staniforth 2008: 125).

The first permanent settlements in Van Diemen’s Land were established by colonial sealers in 1798 in the Furneaux Group in Bass Strait, followed by settlements on the northeast coast and King Island. The first commercial whaling in Tasmania occurred even as the settlement of Risdon Cove was being established in 1803, one of the ships transporting Lieutenant John Bowen and his party the whaler *Albion* taking three whales on its way to the Derwent River. At the peak of its shore whaling industry in 1839 Van Diemen’s Land had 60 shore whaling stations employing hundreds of men, generating over £100,000 in exports per annum (Lawrence 2007: 7-8). The social and economic significance of Tasmanian whalers to the wider region was that they:
... probed the waters of Bass Strait and the Tasman Sea, and whaling men from Van Diemen’s Land were among the first white people to settle on the shores of what would become South Australia, Victoria and New Zealand. The business networks they developed formed a web that spread outward from Hobart, and to a lesser extent Launceston, and connected Australasian waters and coasts into a single maritime community. (Lawrence 2007: 1-2)

Gibbs (1995: 316-320) describes how shore whaling contributed to Western Australia’s colonisation by supporting smaller outlying settlements with trade, adding to knowledge of the coast and hinterland, expanding shipping and trade networks and establishing amicable relationships with Aboriginal people. In particular, colonial shore whaling was significant for providing ‘an economic and psychological link between the early difficulties of agricultural settlement and the emergence of successful pastoral interests’ (Gibbs 1995: 332), and generating extra seasonal income that allowed early settlers on the coast to support themselves in the course of their other activities.

In South Australia (still known as New Holland prior to official colonisation in 1836), sealing was carried out at Kangaroo Island and other locations from the early 1800s. Multi-season residencies by sealers occurred on Kangaroo Island from around 1806 with permanent settlement established from 1819 (Clarke 1996: 55). Kangaroo Island became the major stopping and re-provisioning base in the region, with island residents bartering seal, kangaroo and wallaby skins, salt, meat and vegetables for flour, alcohol and tobacco (Clarke 1996: 56). After 1836 shore whaling was associated with official settlement through the South Australian Company and other partnerships, while informal shore whaling operations were carried out on the remote west coast by Van Diemen’s Land whalers from Launceston and Hobart. While these were mostly seasonal operations, at the main centre of Encounter Bay shore whaling was linked with permanent settlement of the area (Staniforth 2010: 127-128).

**Australasia’s Southern Ocean frontier**

This thesis introduces the term and concept of the ‘Southern Ocean frontier’ to emphasise the environmental, geographic, economic and social links shared by Australia and New Zealand during the 19th century, where seal and whale harvesting activities led to sustained cross-cultural contact, and ultimately colonisation.
Sealers and whalers were the first to explore and obtain detailed knowledge of much of the sub-Antarctic Southern Ocean and Australia’s and New Zealand’s southern coastline and hinterland. Following the environmental range of pinnipeds and cetaceans, they found new anchorages, harbours, rivers and resources, and were often the first non-Indigenous people to make contact with coastal Aboriginal groups in Tasmania, Victoria, South Australia and Western Australia and gain knowledge of hinterland resources.

Hainsworth (1967) speaks of the early ‘Pacific frontier’ exploited by New South Wales sealers; Gibbs (2005, 2011) describes the economic and maritime frontiers of shore whaling stations along Western Australia’s southern and western coasts; Lawrence (2007) situates Tasmania’s shore whaling stations on a maritime frontier, while Cameron (2011) describes early sealing, cross-culture contact and the blending of Aboriginal and European cultures on northern Tasmania’s ‘colonial sea frontier’. This thesis argues that these maritime frontiers—including the Archipelago of the Recherche and southern coast of Western Australia—are environmentally, socially and economically linked, and that the entire southern Australasian coastline may thus be thought of more holistically as Australasia’s ‘Southern Ocean frontier’. While exploring the Southern Ocean frontier, sealers and whalers established seasonal camps, followed by multi-season bases in remote bays and harbours, some of which grew to become permanent settlements. This process constituted the initial invasion of Aboriginal peoples’ traditional lands, and significantly impacted traditional lifeways through transformation of Indigenous economies, the introduction of new technologies, and depopulation through violence, removal of women and introduction of diseases (Plomley 1966: 1008-1009; Russell 2012; Taylor 2000) (Figure 1).

After depletion of the Bass Strait and New Zealand seal colonies between 1806 and 1820, Sydney and Van Diemen’s Land sealers turned their attention westwards in their search for further seal bonanzas. Colonial sealers visited Kangaroo Island from 1806, with the first permanent European residents arriving in 1819 (Clarke 1996: 53-56).
By 1826 an estimated 200 sealers and Aboriginal women from Van Diemen’s Land, Victoria’s western district and the west coast of New Holland (South Australia) were living on islands and the mainland coast between Bass Strait and Kangaroo Island (ibid). Between Kangaroo Island and King George Sound are a number of sheltered anchorages, harbours, bays, inlets, reefs, islands and archipelagos providing habitat for pinnipeds. Thistle Island and other islands in Spencer Gulf, Flinders Island, Waldegrave Islands, Streaky Bay, St Peter’s Island, Coffin Bay, Denial Bay, Nuyts Archipelago, and the Archipelago of the Recherche acted as ‘stepping stones’ for sealers, traders, and whalers following the environmental range of pinnipeds and
migrating herds of humpback and right whales westwards (Figure 2, Figure 3).
Figure 2. Locations of 19th-century sealing and whaling settlement sites and shore whaling stations in South Australia. Arrows represent the right (black) whale winter migration route (after Clarke 1996: 53).
Sealing and whaling occurred in Western Australian waters prior to British settlement at King George Sound in December 1826. From 1792 American, French and British whalers operated in the ‘New Holland fishery’ off the Western Australian coast, following the migration paths of right and humpback whales, and targeting the rich permanent grounds of sperm whales. American sealers followed up Vancouver’s accounts of seals encountered in the vicinity of King George Sound during his exploratory visit in October 1791 (Vancouver 1798: 335, 353).

After 1826, the sealing and whaling industries were pivotal in developing the fledgling colony of Western Australia, by attracting foreign shipping that could trade consumer goods for fresh produce, and export commodities of seal furs, hides and oil, and whalebone and whale oil. Local knowledge of the coast and its hinterland resources gained by sealers and whalers—often with the assistance of Aboriginal guides or crewmembers—assisted the establishment of outlying settlements and coastal trading routes.
Study area
This thesis topic grew from unanswered questions about the extent, nature and material remains of known sealing and whaling sites within a defined geographic area—the Archipelago of the Recherche off Western Australia’s southern coast (Figure 4).

Figure 4. Archipelago of the Recherche study area.

This situation may be attributed to the Archipelago’s isolation and relative invisibility in the historical record, compared to better documented and more accessible sites elsewhere in Western Australia, Kangaroo Island, Bass Strait and the eastern states. Although sealing and whaling activities are known to have occurred in the Archipelago from at least 1824 to the 1920s, a comprehensive historical and archaeological investigation into the Archipelago’s resources of sealing and whaling sites remained to be undertaken.
The Archipelago of the Recherche consists of 105 islands and 1200 obstacles to shipping (reefs, islets and rocks) within a boundary of 230 kilometres east to west and up to 50 kilometres offshore (DEC 2012: 2). These islands were once granite monoliths on a coastal plain, before rising sea levels during the Holocene period between 12,000 and 6,000 years BP transformed it into a drowned landscape/seascape of islands, creating the Archipelago as we know it today. The Archipelago is a cross-cultural landscape/seascape, with prehistoric sites on islands associated with Aboriginal occupation and visitation prior to sea levels rising and cutting off the islands, and historical archaeological sites (Dortch and Morse 1984).

At least two archaeological sites positively associated with sealing are located in the Archipelago. These are the shipwreck Belinda (1824) found in 1989—the earliest and best preserved sealing shipwreck yet located in Australia (Henderson 1989), and a sealers’ cave on Boxer Island found in 1957 with seal skins in situ (Anderson et al. 2013; Paterson and Souter 2006). Other archaeological sites related to sealing and whaling in the Archipelago and adjacent mainland include the Middle Island historic site (associated with multiple phases of sealing, whaling, salt collection, pastoralism and shipwreck salvage) and colonial shore whaling stations of Barrier Anchorage and Thomas Fishery at Cape Arid (Pearson 1988, Gibbs 1996).

Aims of the study

The principal research aim of this thesis is to formulate a model to explain the development of early, informal maritime industries and society in the Archipelago of the Recherche, with their associated cross-cultural engagements. Key research questions addressed include:

1. What were the social and demographic characteristics of the individuals and groups involved in early informal maritime activities in the study area?
2. How did these activities contribute to processes of colonisation in Western Australia?
3. Does the historical and archaeological data contribute to our understanding of the nature and extent of early sealing activity in the Archipelago of the Recherche?
4. To what extent were Aboriginal people involved in early sealing and whaling industries in the study area?
5. Do the archaeological sites exhibit evidence for gender, ethnicity and cross-cultural contact?

6. What processes were involved in the transformation of Southern Ocean frontier society to a more formally controlled colonial society?

While sharing the research aims of historians to identify significant themes, events and personalities, historical archaeology has an additional focus towards identifying and interpreting archaeological features as evidence of specific activities and behaviours occurring at archaeological sites. Through this ongoing process of correlating historical research with archaeological data, fragments of incomplete historical and archaeological data may be combined to provide a more complete picture of activities. Interpreting the archaeological data may find that it is either a) consistent with what is already known through the historical record, or b) conflicts with what is already known, resulting in new findings.

In order to do this, as wide a range as possible of historical sources and archaeological data were consulted. Original research into primary historical sources and archaeological fieldwork was undertaken to identify new information and sites. Chapter 4 describes the methodology used to interrogate the data in order to test the model and determine their consistency or otherwise, and interpret the results.

This approach to the study will provide a greater understanding of early sealing and whaling activities in the Archipelago of the Recherche, the early development of colonial Western Australia and the associated transformation of Aboriginal society.

**Significance of the study**

This thesis provides new information obtained through original research and analyses on a number of archaeological sites related to the sealing and whaling industries in Western Australia. The research methodology is multi-disciplinary, incorporating historical, archaeological and environmental data and studies. A thematic historical study underpins this multi-disciplinary approach to the investigation of a wide range of human activities with intersecting interests and commonalities (Figure 5), and draws on biological and environmental data to better understand the extent, and impact of harvesting on the seal and whale populations of the Archipelago.
To consider a diverse range of archaeological site types within a wide study area, this thesis takes a holistic maritime cultural landscape approach to investigate a variety of Aboriginal, historic and maritime archaeological sites.

The Western Australian sealing industry has been largely neglected in the Australasian context, and this is the first thematic investigation into both the history and archaeology of pinniped harvesting in Western Australia. This thesis provides new impetus for historians and archaeologists to conduct further studies into the subject of sealing and whaling, and to incorporate Western Australian sealing and whaling into the wider Australasian experience. From an environmental-historical perspective, Richards (2010: Preface) outlines the necessity for further studies into the impacts of seal harvesting on modern seal populations: ‘There remains a need…for greater coordination between historical, zoological and conservation studies; and more attention to separating and covering one by one the several seal species involved location by location’. To this it may be added that archaeological...
research can also be coordinated, and this multidisciplinary study is the first in Western Australia to combine zoological, historical and archaeological information.

The importance of sealing and whaling to Australia’s early development is barely referred to in historical accounts of official exploration and founding events. Rousset (2011: iii) describes this as a symptom of ‘…the western historiographical canon laid down by the end of the nineteenth century in which history ended at the edge of the continents and dwelt almost exclusively on the interiors’. As a result the significance of these activities is little understood by the general public today (Russell 2012: 31). Most sealers and whalers did not record their personal experiences, with the exception of a few valuable first-hand accounts and some remaining ships’ logbooks. Sealers and whalers did not always voyage to established ports where their vessel arrivals and departures could be recorded, and expeditions were usually conducted under conditions of commercial secrecy. In seeking new sealing and whaling grounds, crews risked their vessels and lives exploring uncharted waters. Industry conditions were harsh and dangerous, and the men and women involved were often illiterate and lived on the fringes of conventional society. Sealing gangs are known to have included escaped convicts or deserters from whaling ship crews, and were multi-ethnic including European, American, African, Asian, Polynesian and Aboriginal crewmembers. Aboriginal women from Tasmania, South Australia and Western Australia were forcibly kidnapped or traded by sealers to become domestic workers, wives and sealing gang members. Some individuals and gangs were simply abandoned on remote offshore reefs and islands.

In attempting to learn more of the daily lives of sealers and whalers, and their social organisation, cross-cultural contact, material culture, vessels, industrial conditions and early colonisation processes, archaeologists have conducted research into 19th and 20th-century sealing and whaling sites in Australia and New Zealand (Atkinson 1987; Bindon 1996; Coutts 1976; Erskine 1997a, 1997b; Gibbs 1995; Henderson 1991a; Kostoglou 1996; Kostoglou and McCarthy 1991; McCarthy 1981; McIlroy 1986, 1987; Nash 1990; Pearson 1988; Staniforth 1986; Staniforth 1998; Strachan 1987; Townrow 1997; Vosmer and Wright;). In 1997 the ‘Archaeology of Whaling in Southern Australia and New Zealand’ (AWSANZ) project brought researchers from a variety of disciplines together to share information and develop coordinated research goals (Lawrence and Staniforth 1998: 7). Since then further archaeological
research into sealing and whaling has occurred in Victoria, Tasmania, Western Australia, South Australia and New Zealand (e.g. Anderson 2004, 2006; Gibbs 2003, 2005; Steele 2005; Lawrence 2001, 2007, 2008; McAllister 2013; Nash 2003; Paterson and Souter 2006; Smith and Prickett 2006; Stanbury 2015; Staniforth 2008).

The majority of these studies have focused on colonial shore whaling sites, due to their more extensive domestic and industrial remains, along with some whaling shipwrecks. There have been few studies published on sealing sites in Australia. This is partly because most sealing sites are by their nature seasonal and ephemeral, and what little evidence that may have remained in some areas has been destroyed or confused by subsequent activities and modern development, leaving little for archaeologists to study (Townrow 1997: 32-32).

Compilation of archaeological research undertaken over the last 30 years—some of it previously unpublished—as well as original research undertaken for the purposes of this thesis, represents a significant new synthesis of data. For example, early evidence of cross-cultural contact has been found on Middle Island in the form of worked ceramics and glass, attributed to Aboriginal people from eastern Australia travelling with sealing gangs in the early sealing period (Dortch and Morse 1984: 34). The WA Museum holds archaeological material collected from underwater excavations of the sealing brig Belinda in 1989 and 1991 (Henderson 1989, 1991a), and the Middle Island historic site excavations and Boxer Island sealer’s cave survey in 2006 (Paterson and Souter 2006). Between 2008 and 2013 the author conducted further historical research and archaeological fieldwork in the area in conjunction with Traditional Owners as part of Gabbie Kylie Foundation/ National Trust of WA research field schools, surveying a range of Aboriginal, terrestrial and maritime sites.

Archaeology in Australia has traditionally been divided into the sub-disciplines of Aboriginal/ prehistoric, historical/terrestrial and maritime/ underwater. In addition to pedagogic differences and sometimes radically different data sets this is partly due to separate legislation covering Aboriginal and European/ non-Aboriginal archaeology, and the way that heritage management agencies have accordingly been set up under these statutory frameworks in the various states. Australia also has separate
archaeological associations that have traditionally focused on Indigenous (Australian Archaeological Association), historical (Australasian Society for Historical Archaeology) and maritime (Australasian Institute for Maritime Archaeology) archaeology. This situation is gradually changing, as Australian archaeologists are increasingly interested in the overlaps and commonalities between the various disciplines, with much recent literature published in the area of cross-cultural contact and maritime frontier settlement studies (for example Anderson 2006; Gibbs 1995; Harrison 2004: 109-143; Lawrence and Staniforth 1998; Lydon 2009; Murray 2004: 1-18; Paterson 2006: 99-111; Paterson and Van Duivenvoorde 2013; Souter 2013: 87-97; Williamson 2004: 176-199).

With a view to further strengthening the above research initiatives and links between the disciplines, this thesis is original and represents the first thematic study in Western Australia to combine underwater, historical and Aboriginal archaeology.

The investigation includes Aboriginal, historical and maritime sites. Aboriginal sites in the area include artefact scatters, stone arrangements, lizard traps, gnamma holes, fish traps, quarries, rock shelters and rock art, though only some of these are possibly related to sealing and whaling activities. Maritime and historical archaeological sites include shipwrecks, sealers’ camps, sealers’ caches, shore whaling stations, bay whaling campsites, whalers’ lookouts, salt harvesting and pastoral sites and anchorages.

**Thesis overview**

Chapter 2 reviews and critically evaluates the theoretical and archaeological literature on the subjects of sealing and whaling, colonisation processes and cross-cultural contact in the Australasian maritime context. This literature review provides the foundation upon which the archaeological research methodology is formulated, in order to identify and interpret the material culture and archaeological signatures of sealing, whaling and cross-cultural contact.

Chapter 3 presents the environment and biogeography of the region, focusing on the marine mammals targeted by sealers and whalers—pinnipeds (seals and sea lions) and cetaceans (whales). Drawing on scientific studies into the population structures, breeding cycles, ranges, habitat and seasonal migratory routes of these animals assists in understanding what pristine population numbers might have been. This in
turn provides some insight into the extent and impact of historical sealing and whaling activities in the Archipelago.

Chapter 4 presents the historical and archaeological research methodology, including how historical and archaeological data sources were obtained, the field recording techniques used, and how the archaeological research questions were formulated.

Chapter 5 is a thematic historical study into sealing and whaling in the Archipelago of the Recherche. Sealing and whaling were global industries, and issues such as global markets and economic factors that supported the development, and later decline, of sealing and whaling in Australasia, and the Southern Ocean generally are discussed to provide the local context. It also introduces some of the men, women and children known to have been involved in sealing and whaling in the Archipelago. The investigation also considers other human activities known to have occurred in the study area under focus such as fishing, pastoralism, salt collecting, shipwreck salvage or development that may have impacted or removed archaeological evidence of whaling and sealing sites.

Chapter 6 introduces a key aspect of early colonial development and cross-cultural contact in Western Australia, namely the hybrid customary and colonial exchange economy based on the barter of goods and services operating along the Southern Ocean frontier involving both Aboriginal and Europeans/newcomer peoples.

Chapter 7 describes the maritime cultural landscape/seascape of the Archipelago of the Recherche with its variety of tangible and intangible sites related to the sealing and whaling phase of its history. It includes a range of Indigenous, historical and maritime archaeological sites related to sealing and whaling in this area with their histories where known, and descriptions of their archaeological features where recorded. Archaeological case studies of Middle Island, Belinda (1824) shipwreck and Boxer Island are dealt with specifically in Chapters 8 and 9 respectively.

Chapter 8 presents a case study of Middle Island focusing on the results of the University of WA and WA Museum 2006 archaeological investigations (Paterson and Souter 2006) at the historic site at the western end of Goose Island Bay in which the author participated, and subsequent surveys and excavation conducted during the course of this research. Historical and archaeological data are presented that add new
information on the duration and extent of historical activities on Middle Island. Based on the data and results, an interpretation for the association of specific structures and sites with historic activities is provided.

Chapter 9 is an historical and archaeological case study into the shipwreck of the sealing brig Belinda, wrecked on Middle Island on 19 May 1824. New evidence from historical research into primary sources is presented along with archaeological data obtained from surveys and excavations of Belinda in 1989 and 1991, some of it previously unpublished. As part of this investigation, cataloguing, photography and functional analysis of Belinda artefacts was undertaken, with an interpretation of the Belinda site and artefact assemblage provided.

Chapter 10 presents the results of research into a sealer’s cave on Boxer Island, where in 1957 a cache of seal skins was found in situ. The cave was relocated and seal skins removed by a group of local amateur historians in 2005. The 2005 rediscovery led to an archaeological survey conducted in 2006 by a combined University of WA and WA Museum team (Paterson and Souter 2006) in which the author participated. This chapter also reports results of recent historical, archaeological and DNA research, which are combined to provide an interpretation of the chronology and use of this site.

Chapter 11 discusses the overall findings drawn from the various historical and archaeological data in light of the research question(s), provides conclusions and provides directions for future fieldwork and research.

Appendices present data on the locations of archaeological sites (Appendix A), an historical timeline of human activities on Middle Island (Appendix B), Belinda functional artefact analysis (Appendix C), a catalogue of artefacts from Middle Island 2006-2012 excavations and surveys (Appendix D) and a peer-reviewed joint paper (Anderson, Berry and Loo 2013) on the archaeology, conservation and identification of Boxer Island sealskins using DNA analysis undertaken as part of this research (Appendix E).
Chapter 2 Literature review and theoretical approaches

Introduction
A formalised and explicit theoretical framework is outlined here as ‘each archaeological decision is dictated by theoretical assumptions…[and] any presentation of method implies presentation of relevant theory and the assumptions that stand behind the method’ (South 2002: 1). This chapter sets out the theoretical approach to this research, and evaluates the literature consulted in order to develop a model for early, informal maritime industries and societies along the south coast of Australia, with their associated cross-cultural dynamics and engagements.

This thesis focuses on the changing nature of human exploitation of natural resources, and cross-cultural contact between different individuals and groups in a maritime frontier setting. As the study period covers the duration of the 19th century, an historical archaeological methodology can contribute insights into activities of socio-economic groups that were predominantly illiterate or ‘beneath the colonial gaze’, with little or no documentary evidence describing their daily lives. The research methodology thus must take into account as wide a variety of archaeological and historical data as possible.

Some of the problems encountered in the study area were that the available historical sources are widely scattered and for much of the period scant or non-existent; there are a variety of archaeological sites over a wide geographic area; most of the sites are on remote islands that are difficult to access; some sites have limited extant remains; and there are few background thematic historical studies to adequately contextualise, compare and interpret the sites.

While historical archaeological studies into the 19th and 20th sealing industries have occurred in other Australasian regions including Heard Island (McGowan and Lazer 1988), Macquarie Island (Townrow 1989), South Australia/Kangaroo Island (Kostoglou and McCarthy 1991), New Zealand (Smith 1994), Tasmania and Bass Strait (Kostoglou 1996) and Victoria (Townrow 1997), no study has previously been undertaken into sealing in Western Australia. Archaeological research into early maritime industries along Western Australia’s southern coast has predominantly focused on the colonial shore whaling industry (Gibbs 1995; McIlroy 1986). Some
important information on sealing sites remains unpublished, and some potentially significant sites identified through historical research have not yet been archaeologically surveyed due to their remote location.

**Theoretical approaches**

Given this thesis incorporates a study of the development of Australia’s early economy and trade with world markets and, colonialism, maritime society, labour, cross-cultural contact and adaptation by early colonists to the Australian environment, several higher-level general theories are seen to be applicable to this research including cultural ecology (the way in which humans adapt to environment and/or the environment shapes human behaviour [after Griffiths and Robin 1997]); cultural materialism (the way people construct, transport, exchange, use and discard artefacts, recognising embedded social and cultural meanings), and neo-Marxist-related theories relating to individual agency, politics, capitalism, labour, production and exchange (for example Peregrine 1996; Trigger 2006: 30-34).

This study argues that a combined land and seascape approach is necessary for understanding European colonisation processes in the ‘Australian archipelago’—the continental Australian mainland and its 18,222 offshore islands. Early colonisation in Australia and New Zealand depended on shipping, marine resources, informal settlement and ‘maritime mechanisms’ (Beck 2009) of voyaging and cross-cultural exchange. Small-scale, unofficial and seasonal coastal settlements are not well recognised in standard historical narratives of colonial founding events, although they were vital to the process of developing knowledge of the coast, the hinterland and its resources, and establishing coastal shipping networks. This essential maritime perspective is often forgotten in the dominant Anglo-settler, agro-pastoral narrative focusing on Australia’s inland development. Such an approach is consistent with Firth’s (1995: 4) recommendation that maritime archaeological research should critique both past interpretations of terrestrial societies that omit coastal and maritime components, and interpretations that omit the terrestrial context in interpretations of sea-borne activities.

The concept of Australasia’s Southern Ocean Frontier is introduced to consider the interlinked nature of these activities across regions and oceans, and between land and
sea. Chapter 3 demonstrates how this frontier is defined by environmental and ecological boundaries.

This investigation highlights the importance of cross-cultural contact as well as the continuity of Indigenous history into the historical period. Aboriginal people are often left out of the Australian colonial narrative to the point of invisibility (Russell 2012; Staniforth, Briggs and Lewczak 2001). However, Aboriginal people were vital to the development of early maritime and pastoral industries, contributing partners in hybrid exchange economies and both willing and unwilling participants in colonial society. The 19th century was a period of rapid transformation for Aboriginal societies, and early, formative stages of contact and adaptation are key to understanding longer-term processes.

This investigation is also influenced by a multidisciplinary research approach as advocated by the French historiographical ‘Annales School’ in the social sciences that draws on a broad range of information from archaeology, economics, history, sociology, anthropology and environmental science to gain insight into the short, medium and long-term past (Bintliff 1996: 250; Staniforth 2003).

Historians and archaeologists have a responsibility to apply objective and scientifically rigorous methods to interpreting a body of evidence or ‘facts’, as the process of interpretation can be subjective. A sound methodological approach should not overly emphasise, ignore or discard historical or archaeological evidence that does not fit a preconceived socio-political view or theory. At the same time, it may be a small piece of historical or archaeological evidence that provides extra information, so the methodological approach should incorporate strategies to maximise the potential to discover and consider all such evidence, including anomalies.

A common issue for historical archaeologists is the tendency to privilege documentary evidence, whether knowingly or subconsciously. To overcome this tendency, Feinman (1997: 367, 371) advises that ‘independent consideration followed by careful juxtaposition of these records provides a stronger basis for interpretation than an analytical slant that blanketedly prejudices the importance of one set of data (the written) while diminishing another (the archaeological)’. Writing specifically on theoretical frameworks for cross-cultural contact archaeology,
Williamson (2004: 198) discusses how small-scale events at the humanistic, individual level as well as longer-term, environmental changes may be interwoven to ‘humanise the past and re-emphasise the notion of internally driven structural change’, thereby providing a suitable framework to investigate both historical and archaeological datasets.

Questions constantly asked during the research process include ‘What data are significant?’ ‘What does this data patterning mean’ and ‘How may it be interpreted?’ This research aims to correlate historical and archaeological data as much as possible. It follows accepted scientific method by applying both a hypothetico-deductive method of testing propositions (hypotheses) against the evidence, and allowing inductive observation (for example of pattern recognition or unusual anomalies) to construct the theoretical framework. It aims to realise the maxim that successful theoretical frameworks have both logical coherence with existing theories, and satisfactorily correspond with the available evidence (Trigger 2006: 36-37).

Social archaeology
Social archaeology acknowledges the relationship between archaeology and the way in which theories of society and history are formed, and seeks to understand the social relations and organisation of people who left behind archaeological remains (Patterson 2007; Lydon and Rizvi 2010). Social archaeology recognises that archaeological sites and artefacts are imbued with social and cultural meaning through their creation, use, transport and deposition, and meanings may vary according to their social context, especially on frontier and contact sites (Figure 6).

In relation to the subject areas of this research, social archaeology includes:

- research themes of colonial and post-colonial history and archaeology (Bayman 2009; Gosden 2007; Lydon and Rizvi 2010; Murray 2004; Smith and Wobst 2005);
- gender and ethnic identities (Preucel and Meskell 2007; Joyce 2007);
- spatiality (people, archaeological patterning and spatial organisation) (Blake 2007);
- materiality (people and things) (Flood 2009; Preucel and Meskell 2007: 11-16; Wilkinson 2011);
- cross-cultural contact (Bayman 2009; Harrison and Williamson 2002; Lightfoot et al. 1998; Lightfoot 2004; Lilley 2007; Murray 2004; Paterson 2011; Richard 2015; Torrence and Clarke 2000);
- community archaeology, heritage and identity (Marshall 2002a, 2002b; McBryde 1985; Mitchell et al. 2013; Silliman 2008), and
- Marxism with its focus on class, labour, production, exploitation and economics (Patterson 2007).

Figure 6. Diagram demonstrating the movement and different meanings of artefacts in Indigenous and non-Indigenous social systems in the context of Australian frontier and contact sites (Harrison and Williamson 2002: xiv).

The above social considerations have seen archaeologists, anthropologists and historians re-examine and reinterpret the European colonisation of Australia to recognise the contribution of Indigenous people to colonial processes, emphasise the continuity of Aboriginal history into the historic period, and highlight Indigenous agency in adapting to newcomer culture and transformations to traditional life while maintaining continuity of culture and connection to country (e.g. Murray 2004; Williamson 2004; Guilfoyle et al. 2015).
Sealing and whaling involved primarily British, American and French merchants and mariners from established seafaring cultures, with historical evidence for ethnic diversity among ships’ crews including Polynesian/ Pacific Islanders, Maori, Azores Islanders, Indians (including ‘Lascars’), African Americans, American Indians and Australian Aboriginals. These mariners were accustomed to hardships, and possessed maritime skills such as knowledge of the marine environment, navigation and marine mammal hunting methods. Their exploration of southern Australasia’s coasts often involved Indigenous people as crewmembers, guides and ‘diplomats’ (Gibson 1994: 675), expanding their knowledge base to successfully adapt to the local marine and resource regimes. Following colonisation of New South Wales, a number of small gangs and individuals utilised their maritime knowledge and local experience to seek individual economic and social opportunities on the periphery of colonial society. The primary drivers for individuals included a desire to escape harsh authoritarian shipboard and/or colonial rule and live independently, to gain economic advantages through trading skins, oil and other marine products, and to obtain access to Aboriginal women (Clarke 1996: 53-56; Gibbs 1995: 91; CC 9/11/1844: 4; PGWAJ 3/10/1835: 575; Lockyer 1826: 10, 22; Plomley 1966: 82; Bride 1969: 52; Cameron 2011: 74, 87).

While Australian sealers are often stereotyped as being a single class of maritime society, Cameron (2011: 120) describes four major social types of Van Diemen’s Land sealers, consisting of: ‘voyage sealers’ from Port Jackson; river town sealers based in Launceston and Hobart Town indentured to colonial merchants and permitted by authorities to undertake short seasonal voyages; ‘desperate types’ including escaped convicts, thieves and maritime bushrangers relying on theft; and finally ‘Straitsmen’ who were independent, permanent settlers of Bass Strait islands.

As individual sealers and gangs ranged further afield, they became even more isolated from prevailing colonial societal norms and culture. In adapting to the maritime frontier sealers traded and lived with Aboriginal people, wore clothing made from skins, and adapted to local Aboriginal methods of foraging for marine and bush foods such as shearwaters (‘mutton birds’), lizards, possums, kangaroo, wallaby, grubs and snakes (Kostoglou 1996: 20-48; AO 15/1/1853: 3). Lockyer (1826: 21) described the sealers he encountered at King George Sound as being ‘actually savages’ for the way they had adapted to their wild, nomadic life on the
fringes of society. There is a paradigm with Aboriginal sailors on board European naval and merchant vessels adopting the dress, language and cultural identity of European sailors, at least during their time working as crewmen. Gibbs (2003) also describes how Noongar whaler Nebinyan adapted to working with Europeans during the whaling season, then returned to traditional life at the end of the season, thus moving between his two worlds of traditional and European seafaring culture.

Conversely, Aboriginal people gained knowledge, material goods and economic advantages from newcomers by trading dogs, women, labour and provisions with the newcomers (Plomley 1966: 112, 289, 306, 339, 687-688; Cameron 2011: 74). Newcomers benefited from Aboriginal knowledge of weather conditions and successful survival mechanisms specific to local environments. Trade between Aboriginal people and newcomers was a mixture of European and customary Aboriginal trade and exchange relationships, the latter based on social relationships and exchanges of gifts (Plomley 1966: 306; Keen 2004: 360). There were also numerous instances of violence, kidnapping and forced slavery as some groups of sealers sought to obtain resources and women (Inq 5/1/1848: 2; PGWAJ 8/10/1842: 3-4; PGWAJ 3/10/1835: 575). Most sealers had one or more Aboriginal ‘wives’ and these women undertook the majority of domestic and industrial work (Bride 1969: 52; Kostoglou 1996: 35-36; Russell 2005; Russell 2007: 24). They formed small settlements on the mainland coast and islands of Bass Strait, Kangaroo Island, Victoria, South Australia and Western Australia and lived in various forms of dwellings including turf and wattle and daub huts and canvas tents, of which there is little archaeological evidence due to their rude or ephemeral nature (Townrow 1997: 31). They shared the same forms of seafaring and hunting technology and imported colonial material culture as these were available regionally. However, being isolated from major markets they appear to have carefully curated their maritime, cooking and hunting material possessions (Townrow 1997: 31; Examination of John Andrews, Albany Courthouse Records, SROWA Series 1648 Cons 348,18/3/1836).

Maritime cultural landscape approach

Defining the maritime cultural landscape

A maritime landscape approach (Westerdahl 1992; Jasinski 1993) incorporating submerged and terrestrial archaeology is adopted here to maximise data that may
contribute to understanding both the foregoing issues, and to interpret both material and cognitive aspects of the sealing and whaling maritime landscapes. Examples of intangible cognitive or indicatory aspects include place names (the ‘place name landscape’), oral histories, rituals, superstitions and traditions (Westerdahl 1992: 6; 2005: 2). The complete range of activities and structure of maritime societies are included within the landscape (Giddens 1979; Firth 1995), expanding the meaning of maritime archaeology beyond limiting, particularistic definitions which are solely focused on the study of ships or nautical equipment, or sites that are now underwater.

A maritime cultural landscape/seascape approach is essential for considering widely dispersed spatial, chronological, cognitive, symbolic and cultural domains relating to seafaring such as maritime trade networks, maritime societies, knowledge systems and key nodes of interlinked activities. By including the widest possible range of both tangible and intangible evidence, a maritime landscape approach provides a more nuanced understanding of past human interactions with the environment. The term ‘seascape’ is fundamentally the same concept as a maritime cultural landscape, utilising a ‘view from the sea’ or marine-based perspective to assist in interpreting both prehistoric and historic maritime cultural environments (see McNiven 2003; Stuart 1998; Wigen 2008).

For example the shore—the interface between the sea and land—is both a liminal zone and a boundary with often-powerful cultural meanings. Fish traps could be placed in the inter-tidal zone, while in some cultures the shoreline represented the border between the living and the dead. The inter-tidal zone is a particularly significant place in the Indigenous seascape, with coastal resource gathering associated with rituals such as singing and placing rocks (McNiven 2003: 337), demonstrating the intrinsically related nature of symbolic and techno-practical behaviour. Investigating mechanisms of Indigenous trade and exchange in Island Melanesia, Roe (2000) argues for a more nuanced understanding of the traditionally understood man bus (bush people) and man salwala (saltwater people) divide, describing instead a complex situation in the littoral zone with ‘…fuzzy geographical, environmental and/or socio-economic borders between various kinds of maritime, coastal and inland groups…’ (ibid: 219). Overall, understanding the Indigenous cultural landscape/seascape is important to consider the diversity of
cultural experiences of the maritime frontier and cross-cultural contact, and is therefore incorporated into this research.

The adjective ‘maritime’ refers to cultural activity connected with the ocean, shore or seafaring, evidence for which may be techno-practical or symbolic, or both, in nature (Jasinski 1993). Accordingly, evidence for the maritime cultural landscape may be classified into categories of a) material and b) non-material evidence of a techno-practical character (e.g. infrastructure, shipyards, settlement sites, navigation markers, knowledge, technology); and c) material and d) non-material evidence of a symbolic character (e.g. myths, traditions, churches, art), noting that some evidence may be cross-grouped across categories (ibid). In Australia the maritime cultural landscape approach has been applied to both the investigation of European coastal communities (Ash 2007; Duncan 2006) and Aboriginal missions and coastal communities (Fowler 2015).

On the Southern Ocean frontier, significant elements identified in the sealing cultural landscape of Kangaroo Island include ‘Naming’ (of boats, women and landscape features), ‘Shelter’, ‘Water’, ‘Food’, ‘Tools’, ‘Tracks’ and ‘Graves’ (James 2003: 18). This ‘landscape of survival’ included areas where Aboriginal women were subject to control by sealers, and areas beyond sealers’ control where women could gather, and that ‘as the island was settled, these areas changed and areas of control grew larger’ (ibid: 155). The notion of changing cultural boundaries with increasing controls and corresponding restrictions of Aboriginal territory and agency including at the ‘domestic frontier’ level is relevant to investigating questions about the processes involved in transforming Southern Ocean frontier society.

In seeking to redefine the maritime cultural history of Eastern Africa’s coastal zone, Breen and Lane (2003) adopted a maritime cultural landscape approach to reconstruct its changing seascapes over time. They found that traditional, maritime/nautical archaeological methodologies limited a more integrated understanding of culturally complex and dynamic coastal use. Their approach to understanding long-term changes in use and maritime technology used a model that included broad categories of ‘Zone’, ‘Activity’ and ‘Movement’, with their associated technologies.

While the sealing and whaling landscape of the Archipelago of the Recherche has a shorter temporal period of approximately a century, application of Lane and Breen’s
model to incorporate zones (e.g. contact zones, beaches, islands, ships, continental shelf), activity (e.g. sealing, bay whaling, pelagic whaling, shore whaling) and movement (e.g. seasonal hunting camps/settlements, semi-permanent settlement, maritime trade, maritime hunting, Southern Ocean trade and economy) assists in understanding the wide variety of activities, and their associated technologies, occurring across a range of contact situations.

**Cross-cultural contact zones**

The Southern Ocean maritime frontier had a number of contact zones where newcomers and Aboriginal people had initial encounters that subsequently led to seasonal, multi-seasonal, and then sustained contact (Figure 7).

![Cross-cultural contact zones on the Southern Ocean frontier](image)

**Figure 7. Cross-cultural contact zones on the Southern Ocean frontier.**

The mainland littoral was the most important and obvious contact zone, especially in the vicinity of sheltered anchorages and water sources as explorers and ship’s crews ventured ashore into Aboriginal territory to collect water, firewood and fresh game.
In some cases survivors of ships wrecked on the mainland were the first Europeans to visit Aboriginal territories and owed their lives to Aboriginal assistance, or lived with Aboriginal groups (Albany Resident Magistrate to Colonial Secretary 10 August 1835 SROWA CSR Vol 42 Item 173; Gibbs 2002). Sealers and whalers utilised islands as bases, camps, lookouts and longer-term settlements. Island-based sealers conducted mainland raids on Aboriginal camps to carry off women, resulting in conflict, while some sealers and whalers deserted their ships and lived with Aboriginal and Maori groups. Seasonal and multi-seasonal sealing, shore whaling and bay whaling activities on the mainland engendered familiarity between newcomers and Aboriginal people, and established communication and reciprocal exchange relationships. Aboriginal and Maori people were invited aboard ships in anchorages, and travelled as workers in sealing gangs and whaling crews aboard small boats in the coastal zone and on ships on offshore, oceanic voyages travelling as far as New Zealand, Europe, North America and the sub-Antarctic, that would have been transformative experiences. Inland explorations with Aboriginal guides provided newcomers with Aboriginal knowledge of the hinterland and its resources and inhabitants, and personal relationships were formed. In this way, cross-cultural contact went beyond the littoral to encompass the coastal, offshore and hinterland zones, thus transforming Australasia’s colonial maritime frontier spaces. The maritime cultural landscapes of the Archipelago of the Recherche are discussed further in Chapter 7.

Sealing and whaling ships seeking out hunting grounds and anchorages to obtain wood, water and provisions followed routes directed by systems of knowledge and purpose (Dening 2002: 4). The concept of ships as ‘Periplean border zones’ or travelling frontiers (Chappell 1991: 1-9) is key to exploring cross-cultural contact by visiting mariners with long-term cultural impacts, what Schürmann (2012) describes as ‘entanglements from below’. In these cases cross-cultural contact was incidental to the purpose of the voyages, however while their voyages left no trace on the surface of the sea, encounters both on ships and on shore had significant long-term social and cultural impacts with their associated tangible and intangible sites marking the landscape.
Environment and ecology

Studies into the land-based history of settler societies have used the term ‘ecological apocalypse’ (MacKenzie 1997), that can equally be applied to exploitation of the marine environment. Understanding the marine environment and resources of the Southern Ocean is central to understanding the extent and nature of historical maritime activities. Sealers and whalers discovered environmental and ecological boundaries between regions of marine biodiversity and species’ range/habitat, including changing seasonal boundaries for breeding and migration aggregations. The geographical range and seasonal availability of marine mammal resources, including their migratory routes and reproduction cycles, was the most significant factor in directing maritime behaviours and seasonal scheduling. Thus certain specific features within the marine environment define the available area of activity for sealing and whaling, for cross-cultural contact and associated archaeological resources including shipwrecks, seasonal camps, settlements and historic-era Aboriginal sites. These include offshore islands providing breeding and haul-out grounds for pinnipeds, strategic locations along migratory routes and shallow, protected bays sheltered from large swells and prevailing winds used by Southern right whales (*Eubalaena australis*) as nurseries, and by whalers as anchorages.

A broad comparison can be drawn with the North American and Canadian fur trade, both in terms of cross-cultural contact, and the economic driver of the fur trade that saw the gradual westward exploration and opening up of large tracts of land to European trade, settlement and colonisation. Canada’s continental Pre-Cambrian shield with its riverine tributary systems, isothermal lines and deciduous forests provided the ideal habitat for beavers (*Castor Canadensis*). As beaver populations were depleted at the south-eastern end of their range, English and French colonial ‘frontiersmen’ formed alliances with, and adapted to the life of native American Indian groups to venture further westwards, navigating along the river systems using Indian canoes and portages (Innis 1930: 6). Mariners in the Australasian marine mammal fur, skin, bone and oil trade similarly followed the habitat range of seals and whales, primarily along the southern coasts.

Over-exploitation, abandonment and unsustainability are important themes in this subject area. The impact of seal and whale harvesting (in some cases regional
extinction of species) remains an observable environmental impact that modern populations are still recovering from. Other environmental impacts of sealing and whaling-related activities include land clearing for settlements, firewood and gardens, the introduction of rabbits onto islands as a protein source, and regional extinctions of other native fauna populations as a result of exploitation including kangaroos, wallabies, the Kangaroo Island emu, albatross, Cape Barren Geese and shearwaters (muttonbirds). The introduction of rabbits as a food source (reportedly by whalers) onto Goose Island has had the effect of displacing a significant nesting shearwater population (J. Lavers, pers. comm. Sep 2013). Rabbits have also been introduced on Charnley Island near Esperance, which lies next to Rabbit Island, no doubt aptly named at some point. Chapter 3 discusses environmental factors in more detail, as they are highly relevant to understanding the maritime frontier and cross-cultural contact.

**Frontier theory**

Frontiers are a social phenomenon as they refer to a zone of contact between two or more cultures. They are rarely static, and may be in a state of constant instability as they transform according to changing social, economic, environmental, temporal and political circumstances (Parker 2006: 77). They are ‘...areas between. They are places at the edge of cultural spheres and therefore embody the loci within which culture contact takes place’ (ibid). Frontier studies should not use a dichotomous model that separates cultures on either side of a fixed boundary emphasising conflict, but rather view frontiers as flexible places where attempts at conciliation, cooperation and convergence occur (McGrath 1988: 127). At a more personal level, in terms of sexual and domestic relations and the offspring resulting from such relationships, the ‘domestic frontier’ (Russell 2007) between (predominantly) European men and Aboriginal women illustrates the convergent nature of the frontier.

In describing maritime frontiers, Clark (2009: 20) recognises strong environmental and cultural attributes of the littoral zone that both inhibit and allow access to other cultures—‘the shore is the boundary and the frontier’. This thesis describes a Southern Ocean frontier that broadly encompasses the southern coastlines of Australia and New Zealand where newcomers arriving in ships encountered Indigenous populations, and afterwards established early settlements within
Indigenous territories. As the nature of the frontier changed with colonial expansion, Indigenous populations and traditional life were radically transformed.

Gibson (1993: 6-8) stresses the importance of American activities in the ‘Pacific Basin frontier’ to North American history, seeing it as an inevitable extension of America’s westward, nationalising expansion. He delineates phases of maritime expansionary activities thematically along both economic and politico-cultural lines, with the early ‘maritime fur frontier’ followed by mining, agrarian, missionary and military frontiers to demonstrate that these ‘frontier or expansion entities, primarily committed to private interests, served civic purposes…to transform the Pacific into the “Mar Columbiana”’.

From the 1970s an aggressive process of northern maritime expansion saw Australia’s maritime boundaries extend from the continental three nautical mile limit to the edge of the continental shelf, affecting Rotinese access to traditional fishing grounds in the Timor Sea. Balint (2005) argues a myth of ‘mare nullius’ where ‘the sea was empty and no one suffered from the loss of it’—comparable to the colonial myth of ‘terra nullius’ used to legitimise colonial expansion—underlies this maritime expansion (ibid: 153). This process of increasing control through annexation, legislation and asserting sovereign controls with corresponding disregard for traditional access rights is directly comparable with the earlier 19th-century colonisation processes along Australia’s Southern Ocean frontier.

As the littoral is a geographic boundary the maritime frontier meant different things to different cultures. For Aboriginal people living in southern Western Australia, the littoral was a geographic and cultural boundary beyond which they did not venture in seagoing watercraft, whereas for newcomers their seafaring ability allowed access to that same littoral boundary, proceeding to cross-cultural contact between both groups. In this way the opening up of the colonial maritime frontier also expanded the Indigenous sea frontier as Aboriginal people became involved in maritime activities, and voyaged further afield on ships, in turn gaining knowledge and prestige as Indigenous pioneers and voyagers, subsequently remaking their lives during a time of profound transformative change to traditional culture (Shellam 2009: 154-180; Smith 2010: 7; PGWAJ 16/2/1833: 26). Despite impacts to Aboriginal society as a result of introduced diseases, massacres, dislocation or
restricted access to traditional land and other factors, Aboriginal people also selectively participated in new activities and adopted introduced foods and materials that suited their social, economic and cultural needs (Birmingham 2000; Guilfoyle et al. 2015; Mitchell 2000; McBryde 2000; Shellam 2009).

Early settlement in Australia did not initially occur as an ‘advancing wave’ expanding inland, but rather took place as a process of ‘saltation’ with widely scattered settlements formed at environmentally and strategically favourable locations on the littoral. British politicians and naval officers made formative decisions to establish official settlements such as at Port Jackson, Port Dalrymple, Risdone Cove/ Sullivans Cove (Hobart) and King George Sound with a view to geopolitical strategy, while informal seasonal and free settlements were all based on the necessity for port access to the interior for agro-pastoral activities and/or competition for maritime resources.

McIlroy (1986: 50) believed that archaeological research into Western Australian shore whaling stations ‘would increase understanding of how this early industry affected the State’s economic development and how it perhaps contributed to the expansion of the colonial frontier along the coastline’. Gibbs (2005, 2010) uses the term ‘maritime frontier’ in discussing 19th-century shore whaling stations on Western Australia’s coast, recognising the linked significance of these maritime industrial sites to Western Australia’s economic and historical development. Gibbs identified specific features of the maritime frontier as being geographic isolation, a zone for cross-cultural contact between whalers and Aboriginal people (including Aboriginal whalers) and a place where whalers employed subsistence strategies to adapt to their isolated environment.

World Systems Theory and Core-Periphery models (Bintliff 1996: 246) are significant ways to understand the way global systems linked with regional economies, and the broad scale drivers for transformation in frontier zones (Figure 8). In the case of the Southern Ocean frontier, Bintliff’s ‘core-periphery modification’ model (Figure 8) is most applicable as it allows consideration of multiple factors with differing effects, including destructive exploitation of marine mammal resources.
Other specific models for colonisation, frontier studies, maritime economies and cross-cultural contact (e.g. Birmingham and Jeans 1984; Clark 2009; Lape 2003; Naum 2010; Parker 2006; White 1991) are considered in developing a regional-specific model for Australia’s Southern Ocean frontier.

Figure 8. Core-periphery development models (Bintliff 1996).
Modelling the Southern Ocean frontier

Coutts’ (1976) pioneering study into New Zealand shore whaling stations demonstrated the influence of cross-cultural contact between Maori and European whalers on long-term processes of colonisation (Figure 9).

Figure 9. Map showing European whaling settlements and Maori settlements on New Zealand’s south coast prior to 1850 (Coutts 1976).

Excavation of a pre-1850s shore whaling station site on Taieri Island near Otakou, a post-contact site that was occupied intermittently for six years, identified two different phases of occupation and found evidence for acculturation in the post-contact period. A significant problem for site interpretation and comparative research was that the full range of early settlement post-contact site types (based on date/phase, proximity of whaling stations to Maori settlements and resulting social/urban development) was as yet unknown, and further historical and archaeological data was required. Coutts canvassed a wide range of themes such as Indigenous/non-Indigenous interaction, landscape patterning, colonial settlement activities, acculturation, diet, architecture and material culture (Coutts 1976: 298-302) that
remain key themes in researching shore whaling station sites across southern Australasia.

Historical research and archaeological surveys have been undertaken nationally and internationally in most Southern Ocean regions where sealing and whaling activities occurred. New Zealand shares much with Australia in terms of the development of shore whaling, early settlement processes, cross-cultural interactions and social networks. Cultural resource management (CRM) studies to identify and assess the archaeological significance of sealing and whaling sites have been undertaken in South Australia (Kostoglou and McCarthy 1991), Tasmania (Kostoglou 1996; Nash 2003), Victoria (Townrow 1997), in South Africa’s Marion Islands (Boshoff and Van Schalkwyk 1999), and in New Zealand including the Stewart Island and Foveaux Strait areas (Coutts 1976; Dingwall et al. (eds) 2009; Smith 2002).

Recognising these shared Australasian links, the 1997 ‘Archaeology of Whaling in Southern Australian and New Zealand’ (AWSANZ) project (Lawrence and Staniforth (eds) 1998) brought together researchers to discuss results of recent work and canvassed future directions for research in Australia and New Zealand, that can be applied to the Archipelago of the Recherche.

In relation to Western Australia, Gibbs’ historical archaeological research into shore whaling stations investigated:

1. The human dimension of the whaling industry, with a profile of the workers and owners, their involvement in the industry, and the various conditions and controls under which they laboured;
2. The scale of shore-whaling operations, including changes in the size and composition of the whaling parties and the number of stations used along both the south and west coasts;
3. The supply of whaling equipment to the colonial whalers, including the rate at which new technology diffused into the local industry, and evidence for local manufacture of whalecraft, and;
4. Local modes of whaling, including the efficiency of shore-whaling operations and the relationship between the whale species caught and the success of the industry. (Gibbs 1998: 94)
In their article ‘The Swiss Family Robinson and the archaeology of colonisations’, Birmingham and Jeans (1983) proposed a problem-oriented model for Australian colonisation, based on the fictional novel by German author Johann David Wyss, first translated into English in 1814. Their model used the Swiss Family Robinson metaphor to describe a process whereby colonists moved from the littoral to the hinterland as more inland resources were found, adapting to local environmental conditions to successfully create a settler society (Birmingham and Jeans 1983: 5). The model was presented as a starting point for further theoretical discussion and development, but is seen as having limitations in successfully modelling the Australian maritime frontier for these reasons:

1. It was a hypothetico-deductive attempt to fit all data into a single model, as opposed to an inductive approach to analysing data with an open mind to other variations and models (Bairstow 1984a, 1984b);
2. It has been argued to derive from a Eurocentric ‘mental strait-jacket’ approach that failed to contribute to new scholarly and environmental approaches to ‘understanding…the relationships between the land, Indigenous people and new settlers’ in the Australian context (Egloff 1994: 1);
3. The model was unilinear, unidirectional and evolutionary and did not allow for despoilation, stagnation and technological regression as occurred in the mining sector (Bairstow 1984a: 5), a situation also applicable to the over-exploitation and decline of 19th-century sealing and whaling industries;
4. As a terrestrial model that commenced at the high water mark, it did not consider the importance of marine resources to Australian colonial development, the dynamic nature of sea transport and its influence on inland areas with a coastal frontier; and
5. It was individual-oriented and did not consider the importance of politico-cultural, legal and financial institutions in influencing economy and society. (e.g. Ville 2007: 112-115)

Some other models are found that also contribute to understanding maritime-based processes of frontier settlement. An early coastal settlement model is presented in Strachan’s (1987) investigation of shipwreck sites at Port Fairy on Victoria’s west
coast—the second earliest European settlement in Victoria—with beginnings as an informal seasonal sealing and whaling settlement. Many of the wrecked vessels had previously been involved in sealing and whaling, however, most were engaged in agricultural trading at the time of their loss. Strachan identified four phases in Port Fairy’s development between 1836 and 1878, namely ‘sealing’, ‘whaling’, ‘transition period’ and ‘rural industry’. No wrecks were directly related to the sealing phase, and of three wrecks related to the whaling phase, only the Thistle has been located and archaeologically investigated (Staniforth 1986). In its role as a supply vessel for sealing, whaling and cargo transport along Australia’s southern coast, Thistle is a suitable vessel to compare with the Belinda (1824) and Mountaineer (1835) shipwrecks in the Archipelago of the Recherche. The Thistle was a 58-ton wooden schooner built in 1825 in Fort Gloster, Bengal. In 1830 it became one of the first vessels to trade from India to the Swan River Colony, and was soon afterwards bought by the Henty family. A test excavation of Thistle revealed artefacts including fishbones, lead shot, glass, ceramics and part of its cargo of wattle bark (Staniforth 1986). The artefacts provide a glimpse into living conditions and goods carried aboard a vessel of this period, and the transitional period between whaling and exploiting the hinterland as part of early colonial settlement processes (Staniforth 1986; Strachan 1987). Strachan’s study is significant in that by incorporating transition and transformation in its methodology she places Port Fairy’s shipwrecks within the context of their broader temporal phases and changing maritime landscape, avoiding the particularistic focus of many shipwreck studies. This coastal settlement process incorporating different phases in resource harvesting while transitioning from seasonal to permanent status is a model equally applicable to other settlement nodes along the Southern Ocean frontier.

Through her investigation of colonial settlement and land use patterns in Western Australia, Nayton (1992) argued for the importance of a maritime perspective when interpreting material culture on historical archaeological sites. Employing concepts of economic distance, colonisation gradients, zonation and central place theory, she presents a nodal model for settlement processes. The establishment of centres was directly influenced by port access and proximity to coastal and international maritime trade routes—the decisive factor in considering settlements’ economic and geographic distance from colonial and world trading centres (Figure 10). Nayton’s
The model recognises the importance of economic distance from key markets and maritime trading networks fundamental to modelling both maritime and inland frontiers. The zonation model is equally applicable to understanding the transformation of cultural boundaries as settlement expanded into the coastal hinterland, impacting on traditional land use.

Figure 10. ‘Rings of zonation’ demonstrating inland settlement patterns along a coastal frontier as a function of proximity to shipping transport (Nayton 1992).

Colonisation and cultural diffusion processes depend on fluid frontiers and ‘borderland’ areas where transformation can occur. Clark (2009) describes three types of frontier models that feature in his Chinese study, namely:

1. A European-type imperial frontier model featuring aggressive, centralised expansion;
2. A static continental equilibrium where material, technological and ecological boundaries were geographically confined within a defined border zone by geographical features such as mountain ranges, grasslands or steppe plains; and
3. The maritime frontier.

China’s maritime frontier allowed cultural extension by sea from Neolithic times, and permitted trade and cultural contact along trading route corridors. Buddhism was ‘the first major cultural phenomenon to challenge the integrity and absolute nature of the maritime frontier’ (Clark 2009: 24). Interestingly Clark concludes that it was
only on their maritime frontier that China was able to successfully manage foreigners in a non-expansionary way ‘that was neither threatening nor disruptive’ (ibid: 33). This may be compared to the situation at the early Western Australian colonies of Swan River and King George Sound when Europeans were still outnumbered by the Aboriginal population. Both groups were able to co-exist mostly peaceably, until increasing European expansion into the hinterland sparked conflict as Aboriginal people lost control of their traditional lands and resisted this process (Green 1984: 89-95, 119-128).

Understanding the various boundary dynamics that define frontiers is essential in isolating and understanding borderland processes and applying them to frontier models. This thesis adopts Parker’s (2006) lexicon applicable ‘across disciplinary, temporal and regional divides’ to describe various types of boundaries as they conform to either a frontier (porous, fluid) or border (static, restrictive) (Figure 11).

![BORDERLANDS](image)

Figure 11. Parker’s (2006: 82) Continuum of Boundary Dynamics used to define the nature of boundaries that define a borderland/ frontier zone.

This assists in the development of an adaptive, change-based model that recognises multiple boundaries that may not be static, and move back and forth. The value of this approach is it encourages identification of multiple overlapping factors that benefit the modelling process, it allows new insights into key transformative shifts or phases that may be usefully compared with colonial experiences elsewhere, and generally contextualises and assists in interpreting the archaeological record.
Imported institutions

The introduction and influence of institutions is a key to understanding the transformation of economic, political and cultural frontiers as boundaries shift from a fluid and uncontrolled state to an increasingly administered and controlled state. In relation to the aims of this research in understanding early Aboriginal histories, such ‘institutional and socioeconomic baggage’ (Lloyd 2010: 23) underlies the transformation of cultural boundaries between Indigenous and colonial societies that depended on personal systems of labour and exchange:

Institutions are the rules of the game that help to shape the long-term historical development of societies. They mediate human interaction and can be more or less formal (or tangible) in nature ranging from systems of government to common modes of behaviour. Most formal institutions can be distinguished as economic, social, political or cultural in nature, though such distinctions are more difficult to make for informal institutions. What is certain is the pervasive impact of institutions on a country’s multifaceted development. Thus, economic performance may be shaped as much by a nation’s legal system as by its trade policy…A key aspect of modern economic development is the shift from personal to impersonal systems of exchange. (Ville 2007: 1-3)

The introduction of administrative and financial controls, such as establishment of banks with formal credit systems and increased availability of capital, affected the operation of hybrid Indigenous and colonial economies which were built on personal/social alliances and exchange networks, leading to impersonal systems of exchange, and a corresponding decline in Indigenous influence and agency.

For example, nine institutional innovations or factors are identified as having favoured Western Europe’s economic development, namely:

1. Legal enforcement of contracts and property claims;
2. Evolution of bills of exchange;
3. Insurance;
4. Taxation and property rights;
5. Economic association without kinship;
6. Double entry bookkeeping;
7. Religious and moral systems conducive to economic activity;
8. The mercantilist partnership; and
   (Rosenberg and Birdzell 1986)

All of the above institutions were an established part of British social and economic life by the time of Australia’s colonisation. Institutions of government, navy, army, customs, police, taxation, law, private banking and churches/ religion influenced and transformed all aspects of colonial Australia’s economic performance, territorial control, trade policy, immigration policy and social policies. One area of particular significance to understanding cross-cultural contact and transformative frontier processes is that as settlers obtained more access to capital through the establishment of banking institutions—thereby instituting economic association without kinship—they in turn became less reliant on Indigenous/ colonial hybrid economies.

Increasing colonial administrative controls excluded Aboriginal people both from colonial society and their traditional lands. For example, Skira’s (1997) study into Aboriginal/ Islander population and land tenure in the Furneaux Group, Bass Strait covering the period from 1850 to the early 1900s found that Aboriginal people (who constituted 40% of the islands’ population) could not compete with outsiders when attempting to establish land tenure within the land title system due to a lack of capital, and were disadvantaged by their isolation in their communications with the government.

**Cross-cultural contact**

The theme of cross-cultural contact on the Southern Ocean frontier applies to contact between Aboriginal groups (e.g. Dortch 2002), the initial and ongoing contacts made by sealers, whalers and other newcomers with Aboriginal people, and contact between ethnically diverse groups in the sealing and whaling industries. Cross-culture contact also falls within the sphere of social archaeology (Meskell and Preucel 2007) as it seeks to understand the day-to-day life of frontier maritime communities. Social factors include class/socio-economic status, ethnicity and gender, while some applicable cross-cultural contact models include acculturation, hybridisation, creolisation, cultural blending and adaptation (Paterson 2011: 42-46; Russell 2005; Cameron 2011).
In her study of sealers and Aboriginal women on Kangaroo Island, James (2002: 27-32) builds on the Swiss Family Robinson model to create the ‘Robinson Crusoe and Wo/Man Friday Slavery Model’. This model explores the colonial European mindset that made slavery, convict labour and forced labour acceptable, and addresses one of the flaws in the Swiss Family Robinson model by recognising the intrinsic involvement and contribution of Indigenous forced/coerced labour to Australian colonisation. However, while addressing the need to incorporate Aboriginal people it does so from a standpoint of arguing for a settler-slave based model. In contrast, Matthews (1999), Russell (2005, 2007) and Cameron (2011) have incorporated gender studies in their investigations of the roles and relationships of Aboriginal women and sealers on Kangaroo Island and Bass Strait finding elements of negotiation, cultural blending, domesticity, resistance and cultural continuity.

Historian Richard White (1991) described the ‘Pays d’en Haut’ frontier surrounding North America’s Great Lakes as a ‘Middle Ground’ for negotiating cross-cultural contact, where different cultural diasporas socialised, adapted and accommodated to survive. Both Europeans (predominantly French and British fur traders and colonists) and Indians subverted their respective official social orders with resulting cultural mutations and the emergence of new hybridised cultures through a process of creolisation. Nonetheless, violence remained a prevalent and often utilised option ‘both for acquiring goods and protecting them’ (White 1991: 75).

Lape’s (2003) study of Southeast Asian culture contact proposed a methodological approach to contact studies that ‘…document local developments in the context of large regional scale interactions and influences…[to consider] a focus on the two-way transfer of ideas, influences and technologies in contact situations, an increased concern with the specific mechanisms of information transfer and a related focus on local uses and meanings of foreign ideas and material objects’ (Lape (2003: 103). This method of exploring local two-way transfer through culture contact within a wider maritime region is applicable to the vigorous maritime exploration of the 18th-19th-century sealing and whaling industries, which encompassed southern Australasia and their numerous Indigenous communities. In terms of the Southern Ocean frontier model this methodological approach avoids the dominant Eurocentric paradigm affirming colonisation processes, and seeks to understand the widest
possible diversity of responses to cross-cultural interactions, both historically and materially as represented in the archaeological record.

Culture contact archaeology seeks to draw comparisons by exploring the historical archaeology of culture contact globally, particularly in colonial settler societies where Indigenous populations have experienced profound long-term social and economic impacts (Murray 2004: 12-13). It also seeks to question research agendas in terms of who benefits from archaeological and heritage knowledge, and aims to incorporate Indigenous historical perspectives through community archaeology led or requested by Indigenous people (Klimko 2004). As much of the fieldwork for this research has been undertaken within a community archaeology framework (Mitchell et al. 2013), this thesis reflects these research directions.

In seeking new ways to understand how Australian Aboriginal cultures adapted to colonisation processes and maintained cultural continuity, archaeologists investigating pastoral and mission sites have utilised models of agency (Paterson 2003) and optimal foraging (Birmingham 2000) models (for example) to interpret artefact assemblages. The notion of ‘shared histories’, and redefining the influence of Aboriginal trade, knowledge and technology on European settler culture are other ways to explore contact sites and assemblages rather than viewing them through the dominant imperial settler lens (Harrison 2002; MacIntyre-Tamwoy 2000; McBryde 2000). Harrison (2002: 52) argues for the importance of using archaeological methodologies to better understand colonisation processes at the local and regional level, that can ‘…make a profound contribution to the current national dialogue on Australia’s experience of settler colonialism and the future for Australia as a post-colonial nation’.

Material evidence for cross-cultural contact may differ according to the nature of contact occurring. Understanding different types of material evidence found in the context of contact and trade relationships on other Australian sites assists in developing a layered approach to interpreting artefacts and their meanings in the area under study. It is apparent that such evidence may be slight and not easily recognisable to the untrained eye.

For example crews and officers of European vessels in the 18th and 19th centuries were interested in acquiring ‘native curiosities’ and artefacts for their personal
collections, or on behalf of other wealthy collectors (Illidge 2002). Such objects are often described as having been ‘collected’ for the benefit of wealthy patrons or museums, though contemporary historical accounts show the objects were typically exchanged with local populations for materials such items as iron, flour and European clothing—thus representing a bilateral, negotiated exchange with mutual benefits to both parties. At least two Australian shipwreck assemblages exhibit evidence of such material. An edge-ground stone hatchet head recovered from the wreck of First Fleet supply vessel HMS *Sirius* (1790) wrecked on Norfolk Island was found to have been originally sourced from Nepean River cobble beds in the western Sydney area by Aboriginal people, and exchanged with/ collected by Royal Navy officers (Stanbury 1994: 86-88; McBryde and Watchman 1993). This hatchet is considered to have significant symbolic value as ‘it testifies to traditional patterns of technology and the acquisition of raw materials in inter-group exchanges by Aboriginal people of the Sydney Basin…[and] further symbolises the patterns of contact between Aborigines and the officers of the First Fleet, contact in which exchanges of artefacts, services and food were important to both parties’ (McBryde and Watchman 1993: 139). Significant Polynesian artefacts including Tongan wooden clubs, carved shell fish hooks and worked shell and shark teeth components from a Tahitian mourning costume were excavated from HMS *Pandora* (1790) wrecked at the eastern entrance to Torres Strait, and are likewise significant indicators of cross-cultural contact (Campbell 1997; Illidge 2002).

A striking example of the importance of exchange relationships is found in an assemblage of European-manufactured ceramic armbands found on the wreck of the Queensland labour trade schooner *Foam* (1890) (Gesner 1991; Beck 2009). Having been manufactured in Europe and intended to replace traditional shell armbands used as currency in some Melanesian islander societies for the purpose of the labour trade known as ‘blackbirding’, Beck (2009) investigates the changing nature of Pacific Island trading networks over time and argues that ‘maritime mechanisms’ are vital to understanding trade and exchange relationships between Europeans and Pacific Islanders that in turn transformed both Pacific and European economies and societies. This concept is comparable to the situation occurring along the Southern Ocean frontier, where maritime mechanisms of ship-based trade, labour, exchange and voyaging transformed both Indigenous and newcomer societies, and their
relationships over time. It also highlights the importance of considering the types of currency employed in exchanges, whether it be monetary or of some other form.

An interesting artefact that potentially inverts standard notions of collecting ‘native curiosities’ is the finding of a bifacially flaked flint hand axe found at Scaddan, 48km inland of Esperance believed to be of European Paleolithic origin (Dortch and Glover 1983: 330) (Figure 12).

![Figure 12. The Scaddan implement (Dortch and Glover 1983).](image)

Assuming it is a European Palaeolithic implement, one explanation for its location in Scaddan is that it was transported as a ballast paleolith and dumped in the coastal zone, whereupon it was discovered and transported inland, presumably by an Aboriginal person. Alternatively, it was traded by a member of a ship’s crew or European visitor with Aboriginal people. There is one historical account that provides an example of the latter scenario having occurred. In a journal entry for 26 November 1830, Commander of the King George Sound garrison, Captain Collet Barker, relays an intriguing story of exchange with his friend and Minang elder Dr Uredale, who appeared melancholy:

The only time he showed any attention was on receiving a flint which I had put by for him. The moment he saw it he burst out into expressions and gestures of joy, like a man who had just heard of his having got a large prize in a lottery. (Green and Mulvaney 1992: 361)
Although the entry does not specifically mention the flint being worked, it is a significant insight into the local context for bilateral trade and exchange in ‘curiosities’, as Dr Uredale obviously appreciated the form, rarity and significance of the imported material. If such objects were keenly sought after by Noongar, then perhaps there would have been other similar instances of exchange.

Cross-cultural contact could also mean violent impact. The first massacre of Aboriginal people involving firearms in Victoria occurred at a shore-whaling station at Portland Bay in western Victoria, the location subsequently named ‘the Convincing Ground’. The conflict resonates to the modern day, the site having high significance to Gundidj-mara people as a massacre site of their people (Anderson 2004). It is important to recognise different perspectives and the layered significance of historical heritage sites—both terrestrial and underwater—that have both European and Indigenous heritage values.

The maintenance of traditional lifeways through artefact transport, and manufacture using both traditional and modern materials is a recurring behaviour of Aboriginal people on historical-era sealing and related sites. Tindale’s (1937) identification of lithic artefacts from terrestrial sites on Kangaroo Island with distinctive Tasmanian features led him to conclude they were associated with Tasmanian Aboriginal women known to have been living with Kangaroo Island sealers during the historical era sealing period. Walshe and Loy (2004) interpreted a small hafted adze made of telegraph insulator ceramic found at Harvey’s Return on Kangaroo Island to be a tool manufactured by Aboriginal women, most likely for manufacturing wallaby snares in the post-sealing period sometime after 1876. Briggs et al. (2001) discuss the potential for evidence of women, children and Aboriginal Australians working and living on whaling stations. They describe one notable artefact being a quartz hammerstone found on Flinders Island, which provenance is attributed to Tasmanian Aboriginal women brought to the island by sealer/whaler William Bryant (ibid: 17-18).

Dortch and Morse (1984: 34) interpret four artefacts (B5163) made of glass, porcelain and stoneware they found at two sites on Middle Island (Middle Island Site 5 and Middle Island Site 6/ Andrews Point) as evidence of Aboriginal people co-
habiting with sealers and whalers during the post-European contact period (Figure 13).

![Figure 13. Modified ceramic artefacts collected from Middle Island by Charlie Dortch and Kate Morse in March 1984 (Ross Anderson/WA Museum).](image)

Analysing cross-cultural contact between Tasmanian Aboriginal women and European men sealing on Kangaroo Island Matthews (1999: 9) considers that:

Theories of adaptation and resistance examined through material culture found on ‘contact’ sites such as Wybalenna [a colonial government Aboriginal mission], are only slightly appropriate in the study of a cross-cultural settlement. This is because in such a society it should not be assumed there were dominant cultural ideologies trying to conform another culture, such as on Wybalenna. Adaptation for the Kangaroo Island settlement was essential to their lifestyle, resistance cannot be interpreted so easily. Both Europeans and Aboriginals lived together and artefacts found in communal spaces should not be culturally separated, and perceived as resistance to an assumed dominant culture. Rather they should be interpreted as adaptation into a new emerging cross-culture.

Arguing against a simplistic representation of constant brutality to Tasmanian Aboriginal women by ‘newcomer men’, or describing them as ‘slaves’, Russell
(2007: 19) describes how ‘…the domestic arrangements that emerged between Aboriginal women and newcomer men working in the sealing industry destabilized the colonial process and enabled the women to maintain their culture’. Exploring the relationships between sealers and Aboriginal women on Kangaroo Island, Russell explores the notion of ‘negotiated outcomes’ for increasing our understanding of what happened beyond the initial ‘contact’ phase:

Interpreting the archaeological materials from sites that date to this phase presents a great challenge to the archaeologist. However these materials also present us with a unique opportunity to explore a set of cross-cultural interactions, which produced a hybridised and composite mix of cultural traits. Care needs to be taken not to privilege the mediation of cultural difference—we also need to recognise that Kangaroo Island in the post-contact period represents a new society modified, blended with aspects from several other groups. (Russell 2005: 3)

Both Matthews’ and Russell’s theoretical approaches to interpreting archaeological evidence deliberately emphasise a resilience discourse of adaptation and survival as opposed to simple victimhood. This approach is relevant to early cross-cultural contact sealing sites in the Archipelago of the Recherche, which resulted from the same blending of European, non-European and Aboriginal cultures that arrived in Western Australia via Bass Strait and Kangaroo Island.

**Economic approaches**

**Economic phases and transitions**

The literature shows that sealing and whaling activities along the Southern Ocean frontier correspond with regional and global economic cycles. Archaeological remains of Western Australian, Tasmanian and New South Wales colonial shore whaling stations reflect economic phases of investment, abandonment and revival as investment in whaling station construction and the numbers of people involved changed according to changing economic circumstances (Gibbs 1995: 43, 322, 331; Lawrence 2007: 45). Understanding these phases provides context to the broader maritime landscape and environment, and assists with interpreting archaeological
data as abandoned, reused and/or modified sites and structures may reflect economic phases and transitions.

At the centre of the colonial sealing industry, the main phases of the Van Diemen’s Land sealing industry were:

1. 1798-1810: Rapid growth of the sealing industry with the support of New South Wales Governor Philip Gidley King. Tasmania and Bass Strait were the focus of much activity by both international and colonial sealers. Over 100,000 skins were exported through Sydney between 1800-1806. This activity was also unsustainable as by 1808 the China market was flooded and seal populations had been massively impacted. Some colonial businesses went into liquidation while others went offshore to seek new grounds in New Zealand and the sub-Antarctic islands (Kostoglou 1996: 16-17);

2. 1810-1815: A distinctly smaller Tasmanian based industry with smaller operations emerged. These men had no allegiance to Sydney merchants, and gave the industry a distinctly Tasmanian identity with operations based out of Hobart and Port Dalrymple. The industry was labelled as ‘lawless’ and made up of escaped convicts, while large mercantile companies such as the Enderby’s in London successfully pushed for duties on colonial goods including seal skins and whale oil to protect their own vested interests. There was less support from the colonial government, as Governor Macquarie imposed an additional colonial duty on seal and whale products. This further discouraged business interest in the industry, with the only newcomers being ‘loners or absconders from vessels’ attracted to sealing as a marginal ‘lifestyle’ subsistence existence (Kostoglou 1996: 17-18);

3. 1815-1830: The sealing industry declined to the point where by 1820 only 1700 skins were sent to Sydney. The stifling of colonial industries and decline of sealing led to the establishment of the Bigge Commission. The Commission identified the need to abolish duties on colonial enterprises, and ‘when its recommendation was heeded, a successful shore whaling industry sprang up overnight, and some hoped that sealing too might enjoy
something of a renaissance’ (Kostoglou 1996: 18). However, the decline continued and Tasmanian sealers journeyed to New Zealand, King George Sound and St Paul’s Island, 5000 km west of Bass Strait to undertake sealing activities. Agricultural pursuits were developed on Bass Strait islands, and ‘straitsmen’—as the resident sealers were known—assisted the development of this industry as boatmen ferrying supplies and stock (ibid); After 1830: George Augustus Robinson recorded that the remaining forty independent sealers living in the Straits were barely subsisting on 15 pounds a year. Their traditional economy based on the sale or barter of seal, kangaroo and wallaby skins had declined due to overhunting. However, agricultural and pastoral work, and the development of the mutton birding industry for oil and feathers for the local and inter-colonial market, allowed them to survive. By 1835 sealing had ‘ceased to have any relevance to the mainland or Tasmanian economies’.

(Kostoglou 1996: 19)

The New Zealand sealing industry had similarly distinct economic phases, demonstrating how economic cycles and environmental overexploitation affected the type and scale of activities:

1. The earliest sealers 1792-1802
2. Sealing for skins 1803-1807
3. Skins and oil 1808-1812
4. Decline 1813-1822
5. Revival and mixed trade 1823-29
6. Diversification and decline 1830-1839
7. Sporadic local sealing 1840-1871
8. Macquarie Island revival 1872-1894
9. Illegal sealing 1895-1913
10. Occasional open seasons 1914-1946

(Smith 2002)

In Western Australia the peak period of foreign whaling activity (by mainly American, and some British and French) pelagic whaleships was between 1839 and 1846. Colonial shore whaling was slower to develop but activity gradually increased
between 1843 and 1869—a phase Gibbs (1998: 39) describes as a ‘period of consolidation’. Along Western Australia’s south coast, that includes the most remote stations around Cape Arid in the Archipelago of the Recherche, colonial shore whaling activity actually increased from 1860 through to 1875 (Gibbs 1998: 36-41).

Archaeological surveys and excavations on 19th-century whaling shipwrecks in Australia have provided evidence for the operations of both foreign and colonial whaling activities, and the economics of the industry. These include the earliest phase of South Seas whaling and exploration (Atkinson 1991; Stanbury 1994: 88; Stanbury 2015), colonial whaling (Anderson 2004; Nash 1990; Staniforth 1986; Strachan 1987; Vosmer and Wright 1991), foreign whaling (Erskine 1997a, 1997b; McCarthy 1979, 1981) and whaling vessels involved in other industries (Anderson 2004; Nash 1990; Erskine 1997a, 1997b; McCarthy 1979, 1981; Staniforth 1986; Strachan 1987).

Australian-based whalers were generally not purpose-built whaling ships but converted merchant ships. This allowed them to be easily converted between trades, a flexible feature taking into account the opportunistic nature of whaling and economics of the industry. Nearly half of the Australian-based whalers operating between 1801 and post-1870 alternated between whaling and merchant voyages (Pearson 1998: 93-96). The Hobart-based whaling ships Litherland (1853) and Cheviot (1856), wrecked in Tasmania and Victoria respectively, were carrying general cargoes at the time of their loss, reflecting the demand for merchant shipping during the Victorian gold rush era and a decrease in the price of whale oil since 1850, leading to a decline in whaling. Evidence of whale oil processing equipment on both wreck sites showed the equipment had been stowed, awaiting the next whaling industry revival (Anderson 2004; Nash 1990).

While most terrestrial shore whaling stations were abandoned following decline of the industry, there is at least one case of a station abandoned before ever having been used. Lawrence (2008: 27-28) found ‘ruins’ at Bittangabee Bay, Twofold Bay, New South Wales, attributed to Tasmanian whaling entrepreneurs the Imlay brothers, were in fact an abruptly unfinished construction, with stone material stacked awaiting use. This archaeological evidence correlates with the historical information that the Imlay brothers’ plans for a geographically extended empire based on
whaling were confounded by the collapse of whaling stocks and the 1840s colonial economic depression (ibid).

**Frontier, colonial and hybrid exchange economies**

Broad-scale historical and archaeological studies into colonisation tend to focus on the relationship between the core ‘Mother Country’ and individual colonies, with less attention paid to unofficial, customary, local and regional economies on the periphery of colonial settlements. Usner (1992: 6) argues that ‘for too long, “frontier” has connoted an interracial boundary, across which advanced societies penetrated primitive ones. But frontiers were more regional in scope, networks of cross-cultural interaction through which native and colonial groups circulated goods and services’.

This economic element is a vital component of cross-cultural contact, and in the early stages of many colonial economies settlers and Indigenous people traded and bartered goods on a more or less equitable basis. These ‘hybrid exchange economies’ are defined as an accommodation between Aboriginal societies and colonial settler capitalist economies to create new forms of production and organisation, and that ‘significant elements of traditional ways of life and economic activity are the basis of both settler and Indigenous survival’ with both groups sharing a ‘partially merged way of life’ (Lloyd 2010: 30-31).

Remote inland and maritime frontiers in North American and Australian colonies were places where imported goods were scarce, and colonists had to rely on local hybrid exchange economies to meet their needs, adapting to seasonal products and utilising Indigenous knowledge and labour to maintain their existence (Ewen 1986; Lloyd 2010, 2012; Usner 1987; White 1991; Young 2012). Both Indigenous and non-Indigenous people contributed significantly to the development of regional hybrid colonial economies, though their contribution was not reflected in official records of economic output or shipping export data.

A comparative example of a colonial exchange economy is found on the southern Mississippi frontier during the 18th century, where an ‘inter-racial economic network’ operated between native American Indians, Afro-American plantation slaves and the colonial French, Spanish and English based on the exchange of
deerskins, food and imported goods, and a system of credit and trade alliances (Usner 1987: 167). The existence of this vital, regional exchange economy was a revelation, and contrasted starkly with the prevailing historical view that such an agriculturally undeveloped ‘backwater’ region was economically insignificant (ibid: 181). Firmly linking cross-cultural contact, economic development and colonisation processes on the periphery, Usner concluded ‘the form and content of interethnic relations…can be profitably explored at the obscure crossroads and marketplaces of other colonial regions’ (ibid: 192).

Despite an extensive anthropological literature on Australian Aboriginal exchange systems and documentation of the pervasiveness of cross-cultural exchange in early colonial Australia, the significance of cross-cultural exchange has been largely ignored by Australian historians (McBryde 2000: 241). During ethno-historical research into trade and exchange between the Dharug, Eora, Kuringgi and Dharawal and British colonists in Port Jackson between 1788 and 1828, McBryde found extensive evidence for the operation of a regional cross-cultural exchange economy. She concluded that further investigation of such economic systems would offer a significant perspective on the history of Australian colonial encounters, paralleling the better documented exchange systems in Oceania and North America (ibid: 241, 271).

Understanding pre-colonial trade and exchange networks contextualises cross-cultural contact and how colonisation processes affected, or were incorporated into traditional economies and lifeways (ibid: 243-244). Archaeological and ethnographic evidence for traditional territories, society and economy in southwest Western Australia (Dortch 2002; Keen 2004; Smith 1993; Smith 1999; Veth 2002) (Figure 14 and Figure 15) and post-contact sites including cultural mapping of Indigenous responses to changing land use (Guilfoyle 2015; Veth 2002) allows the incorporation of regional exchange concepts into the maritime frontier model.
Figure 14. Boundaries marking ‘Tribal’ or 'dialect' group territories in the Noongar-speaking or South-western cultural bloc in the South-west of Western Australia (Tindale 1974), re-drawn from Anderson (1984: Figure 10) (Dortch 2002: 8).

Figure 15. Schematised map of Southwest Western Australian model for hypothetical ‘middle tier’ Aboriginal socio-economic units (dashed bold-line boundaries) with constituent local descent group estates (dashed fine line boundaries), with families’ and bands’ interpenetrative ranges denoted by small arrows (Dortch 2002: 8).
There is historical evidence for Aboriginal people and newcomers exchanging labour and a diverse range of goods along Western Australia’s Southern Ocean frontier including seal skins, meat and oil, whale oil and bone, kangaroo and wallaby skins and meat, possum skins, mutton bird meat and eggs, fish, flour, sugar, bread, biscuit, oysters, gum and resin, vegetables, guns, ammunition, blankets, clothing, knives, axes, Aboriginal artefacts, spears, parrots, salted provisions, preserved goods, alcohol and salt (e.g. *PGWAJ* 28/12/1839: 20; *PGWAJ* 9/3/1833: 38; *PGWAJ* 8/10/1842: 3; Green 1984: 36-37, 48, 107; Mulvaney and Green 1992: 337, 368).

Chapter 6 explores the nature of Western Australia’s colonial exchange economy, and evidence for a broader Southern Ocean exchange economy in more detail, including the types of relationships that evolved between Indigenous and newcomer peoples, and associated transformative colonisation processes. To what extent material evidence for this may be visible in the archaeological record is a matter for further analyses, interpretation and testing.

**Social approaches**

Our understanding of shore whaling in Tasmania, and Australia generally has benefited from research and excavations undertaken by Nash (2003) and Lawrence (1998b; 2007; 2008). Lawrence’s excavations at two well-preserved shore whaling sites at Adventure Bay and Lagoon Bay provide an insight into the domestic, industrial and social life on whaling stations. Lawrence also considers the social and cultural meanings of material culture, suggesting that the presence of modern transfer printed teacups and dinner plates is an indication of the station managers negotiating their masculinity, where they were expected to be tough leaders, but also part of a respectable, middle class managerial elite (Lawrence 1998b: 13).

Whaling was an important economic and cultural factor in the development of Albany, from the cultural significance of whales to the Minang to colonial-era shore whaling; port visits from British, North American and French pelagic whalers; 20th-century industrial whaling; the growth of the anti-whaling environmental movement in the 1970s; to modern whale-watching and eco-tourism (Wolfe 2003). Whaling was an intrinsic force both in the cycles of growth and decline, and for conflict in the Albany economy and community, and these were in turn related to local, regional and international factors. In relation to the earliest phase of colonial shore whaling in
the 1830s, a critical reason for their success was the role of experienced sealers in the workforce with their maritime skills, knowledge of the coast and resources (Wolfe 2003: 33-34).

**Strategies**

Social factors also include marine mammal hunting strategies as individuals and groups influenced the type, scale, extent and location of hunting activities across the Southern Ocean frontier, with their associated cross-cultural contacts.

Smith (2002) identified sealing strategies used in New Zealand as including:

1. Shore-based sealing gangs – where gangs of men were deposited at specific locations to harvest and prepare sealskins before being collected again;
2. Ship-based sealing gangs – using the ship as a mobile base from which to exploit seals at various locations;
3. Boat-based sealing gangs – where gangs of sealers with boats were dropped off and would work along a section of coast camping or based in huts, collecting provisions from supply depots and rendezvousing with the ship at a prearranged point; and
4. Resident sealers – where sailors or deserters established more or less permanent settlements, sometimes living with Maori people. Sealing continued to play a part in their work and economy, though in some settlements may not have been their primary activity as ships calling at settlements also carried away pork, flax, whale oil and timber (Smith 2002: 25-29).

Chapter 5 provides historical information for all of the above strategies being utilised in the Archipelago of the Recherche. To what extent any potential archaeological remains may be associated with particular strategies is considered in the archaeological methodology and results.

**Site identification and structures**

Historical sealing sites that have been archaeologically investigated in Western Australia are all on Western Australia’s south coast, and mostly in the Archipelago of the Recherche. The Middle Island historic site includes layers of Aboriginal use,
sealing, whaling, pastoralism, salt collection and 20th-century fishing (Bindon; 1996; Green, Souter and Baker 2001; Marrell 2009; Paterson and Souter 2006; Pearson 1988). Pearson (1988: 6) stated that ‘it is possible that some of the remains of hut sites on Middle Island were built by, or used by, sealers in the 19th century, but there is no clear evidence to support this attribution’.

In 2006 a joint University of Western Australia and WA Museum team including the author conducted test excavations of stone ruins at the Middle Island historic site, and surveyed the Boxer Island sealers’ cave (Paterson and Souter 2006). On the basis of this work Marrell (2009) interprets the Middle Island structures as being partially associated with shore whaling, and partially with later use such as salt collecting.

A stone structure described as a sealer’s oven’ in Waychinicup National Park, six kilometres west of Cheyne Beach, Western Australia consists of a 1.5–0.75m diameter beehive-shaped structure with a 1m maximum height, and an opening at the top, built on a granite rock base out of granite slabs and pug mortar (Figure 16).

![Figure 16. Waychinicup Inlet ‘sealers oven’ (Heritage Council of WA, n.d.).](image)

The main evidence for it being identified as a sealer’s oven is its location 4m above the high water mark on the shoreline of Waychinicup Inlet—a remote but ideally
sheltered spot for small vessels that would have been unsuitable for shore whaling (McIlroy 1987). The oven is described as having been built around the 1800s (HCWA Assessment Place 03343), though there is no archaeological or documentary evidence to support this early date. No excavation has been carried out on this structure, and there have been no reports of other stone structures in the vicinity. This site was not visited as part of this research as it lies outside of the study area.

Archaeological surveys and excavations have occurred on whaling-related structures in South Australia (Kostoglou and McCarthy 1991; Staniforth 1998). Of 26 shore whaling stations known to have been established in South Australia, Kostoglou and McCarthy (1991: 67) identified ten stations as having extant remains, with five unable to be confirmed whether remains were extant or not. Bell (1991: 48) finds that ‘evidence of sealing and whaling stations is slight and fragile, on most there is none at all’ (Bell 1991: 48). This issue is generally reflected in Western Australia, where out of 21 shore whaling stations identified through historical research, only eleven had identifiable archaeological remains (Gibbs 1998: 41).

McIlroy (1986) undertook the first excavation of a shore whaling station in at Bathers Bay, Fremantle, Western Australia, that operated between 1837 and c.1860s. He located the brick tryworks, station building and other structures, and documented early landscape features removed through quarrying and construction. Bathers Bay was the largest and most complex colonial shore whaling station in Western Australia. Gibbs observed clear similarities in the spatial patterning of eleven Western Australian shore whaling stations despite environmental differences between the west and south coast of Western Australia, notably that:

1. Sites were located in sheltered bays usually below a headland or dune;
2. The habitation area is on or immediately behind the primary dunes, and above a sandy beach (presumably for beaching whaleboats);
3. The tryworks are situated downwind from the habitation area;
4. Lookouts are located on the headland or sand dune within visual or hearing distance of the camp;
5. There is usually a (winter) water source nearby (Gibbs 1994: 12).
Gibbs also stated that ‘the impression gained from both the historical and archaeological evidence is that the majority of Western Australian whaling camps were relatively simple, with the structural element limited to the tryworks and a sleeping hut for the men. On the south coast, there are also several low walls which are associated with windbreaks for lookouts’ (Gibbs 1994: 12). The later period of colonial shore whaling in Western Australia relied on smaller crews (usually just one or two boats) and left minimal signs of any infrastructure (Gibbs 1996: 330).

Environmentally this Western Australian model is consistent with other shore whaling sites in Australia, where stations are usually situated in the most protected part of bays, with residential structures built on, or behind primary sand dunes near the shoreline, and positioned upwind from industrial trying out operations (Lawrence 2007: 42-45). However archaeological surveys of earlier period (ca.1820-30s) shore whaling stations in Tasmania generally exhibit evidence of between three and eight residential buildings to cater for between twenty and thirty or more crew, with individual workers’ huts probably holding a boat crew of four to six men (Lawrence 2007: 45).

Kostoglou (1996) identifies and describes three types of sealing sites in Tasmania, namely:

1. Seal hunting sites: areas dictated by the varying habits of the sealers quarry. The elephant seals of King Island preferred sandy beaches with moderate swell, whereas sea lion and fur seal frequented isolated rocks and crags exposed to all the elements. Due to their inhospitable nature, such sites were only frequented by the sealers to actually kill their quarry, unless they had been landed there without transportation;

2. Sealer residences: sealers resided at island localities offering reasonable proximity to seal colonies and living amenities such as shelter from the elements, fire wood, fresh water, game and privacy. As they killed off resident game and chopped down all available timber, expeditions for both commodities were mounted periodically to larger islands or the Tasmanian mainland;

3. Hunting or birding sites used by sealers: a by–product of these expeditions were hunting sites that offered the sealers a chance to obtain food or trade items from marsupials, mutton birds, or fish. Some island localities were
even sought out by the sealers because of their resident gemstones e.g. Flinders Island. (Kostoglou 1996: 64)

Six archaeological sites could be associated with sealing activities on islands off the South Australian coast, namely at St Peter Island, Flinders Island, Thistle Island, the Independence shipbuilding site on Kangaroo Island, and Baudin Rocks (Kostoglou and McCarthy 1991). Structures include ruinous stone building features with some bricks, and other features on St Peter and Flinders Island. Island sites associated with sealing activity could also be associated with later uses such as whaling and pastoralism, Kostoglou and McCarthy (1991: 2) noting that:

In some cases there is conflicting evidence regarding the functions of some sites, that is whether they were whaling or sealing sites or both. The ruins on St Peter Island and Flinders Island have been classified as sealing sites as most of the documentary evidence points to this. However this does not preclude their function as whaling sites at some time. Both industries were opportunistic, and frequently overlapped. It is well documented that whalers caught seals if there were no whales around and sealers caught whales if they had the facilities or if a whale was stranded.

In Victoria only two structures have been positively located that could be associated with sealing, both on Lady Julia Percy Island off Port Fairy, but ‘no material remains firmly associated with the first phase of sealing in the 1820s were visible’ (Townrow 1997: 25). The surprising lack of any identifiable remains associated with sealing in Victoria is attributed to their ephemeral nature, and the impact of later human development in coastal areas (ibid: 30-32).

Smith’s (1994) historical archaeological study into the European sealing industry in New Zealand outlined its development through ten phases from 1791 to 1946. The study was limited to terrestrial archaeological sites in New Zealand and did not include shipwrecks, though he undertook an analysis of 343 sealing voyages. The report identified 46 sites from historical and archaeological sources, of which some remain to be investigated archaeologically. Some sites’ association with sealing activity is only conjectural, and thirty of the 46 sites were suggested to be related to land-based sealing activity. Of these, only eight sites were confirmed both
historically and archaeologically to be associated with sealing. Site types include huts (stone and timber, and terrace remains), gardens, caves and rock shelters, overhangs, 19th-century artefact scatters and charcoal from fireplaces, ship-building sites, campsites with middens and ovens, rock engravings with names and dates and a boat-run (a structure to assist moving small boats between the water and storage on dry land). A number of the caves investigated also contained evidence of prehistoric Maori occupation.

**Discussion of key findings to develop a model for informal maritime society on the Southern Ocean frontier**

To address the research questions outlined in Chapter 1, this literature review has considered a diverse range of theoretical considerations relating to economics, historical studies, material culture, site patterning, frontier theory, social archaeology, maritime cultural landscapes and cross-cultural contact.

Northern hemisphere markets in Europe, North America and China drove sealing and whaling activities in the southern hemisphere. Sealing and whaling attracted northern hemisphere trade and shipping to support the rise of a full-time merchant class in colonial Australia, generated capital that contributed to agro-pastoral development, and directly contributed to knowledge and the expansion of colonial activities along Australia and New Zealand’s southern coasts. Sealing and whaling activities had distinct phases resulting in archaeological signatures that also reflect issues of transition and decline.

The broader maritime economic frontier of Sydney in the late 18th and early 19th century included the Pacific and Southern Oceans. Commodities sourced from the Southern Ocean frontier included seal skins, furs and oil, whale oil and bone, kangaroo and wallaby skins, sandalwood, salt, gum and wattle bark. Prior to being exported, these commodities were sourced and traded within Australia’s colonial exchange economy. Cross-cultural contact was intrinsic to the operation of maritime-based economies and coastal settlements along Australia’s southern coast. The blending of newcomer and Indigenous societies and meshing of traditional Indigenous economies with the colonial and global economies resulted in transformations to traditional, and newcomer life-ways.
In the exploratory phase of industry development, sealers and whalers operated within a ‘maricultural exploitation area’ (Westerdahl 1992: 5) defined by marine mammals’ environmental range and habitat. Following exploitation of the known and most accessible grounds, in expanding their operations more widely to find new hunting grounds sealers and whalers discovered new coastal frontiers that resulted in cross-cultural contact, seasonal and permanent settlement, invasion of Aboriginal territory, diaspora, transformation of Indigenous societies, environmental impacts and over-exploitation of resources. The lack of detailed historical records for these activities features a ‘Dark Ages’ between 1800 and 1824, where little was recorded of the daily lives of the people directly involved.

Following the logic of Parker (2006), during the period of Australia’s early colonisation, the Southern Ocean frontier was geographically fluid as maritime exploration was possible across a wide area including islands and the littoral. It was politically fluid as official British administrative/jurisdictional controls were minimal or non-existent in some areas, and vast areas of New Holland remained unclaimed by European territorial powers. It was a culturally porous zone where newcomers could freely visit, migrate, have contact with Aboriginal people and establish both official and informal coastal and island settlements. It was also economically porous, where shortages of capital, labour and the absence of banking institutions allowed the exchange of goods, labour, technology and knowledge to develop as a hybrid system of Aboriginal customary and colonial market economies. The Imperial and colonial governments’ inability to enforce their jurisdictional claim over resources in remote territorial waters, and the lack of social and financial institutions allowing an exchange economy to flourish are two key institutional aspects influencing the development of early Southern Ocean frontier society.

Part of the purpose of this literature review is to understand and predict the range and integrity of material to be found on archaeological sites, with attendant archaeological test implications. Based on the literature, sealing and whaling archaeological sites will reflect certain phases of economic activity and resource availability, and will be likely to have been impacted by later phases of human activity (Townrow 1997: 31). The archaeological evidence for sealing sites is generally slight and easily obscured by later activities. Sites relating to resident
sealers and shore whalers will predominantly exhibit evidence of newcomer/colonial material culture and be techno-practical in nature, with artefacts possibly reflecting processes of modification, adaptation, ethnicity, gender, cross-culture contact and/or Indigenous technological organisation and lifeways. Both sealing and whaling sites will appear in coastal settings with a combination of environmental factors favourable to marine navigation (e.g. protected anchorages, landing points), habitation (e.g. fresh water and food) and near to exploitable marine mammal populations (Townrow 1997: 31). For shore-based whaling sites, the level of exploitation activity may range from small-scale, individual and boat-based gangs, to industrial scale shore whaling stations that could have between 15 and up to 40 or more people living on them (Gibbs 2005; Lawrence 2007), though the former type are most common in the Western Australian colonial shore whaling experience post-1840s.

In economic terms a working model for the Southern Ocean frontier to include economic phases and environmental exploitation is based on Bintliff’s (1996) ‘Core-periphery modification’ model of regional development, where the periphery is affected by factors both aligned with, and independent of the core. The model will rely on Parker’s (2006) terminology to define the boundaries and dynamics of the changing frontier, and discusses evidence for the transformative social and economic impacts of cross-cultural contact, hybrid colonial exchange economies and colonial institutions.

Further investigations of factors—including two-way cultural and economic interactions—that may accelerate, restrict or maintain periphery development on the maritime frontier include the following:

1. Documenting the transformation of fluid boundaries of the Southern Ocean frontier to a series of more rigidly defined borders after Parker (2006) to develop an understanding of key drivers and phases;
2. Including cultural and environmental factors such as marine and hinterland resources, seasonality, cultural blending and the role of islands in encouraging the spread of early informal settlements;
3. Understanding economic phases that led to concentrated periods of activity and different types of activity, environmental/ ecological transformations and abandonment;
4. Utilising a maritime landscape/ seascape approach to identify key places, resources, settlement hubs, nodes and trading routes to understand maritime activities, social organisation and exchange networks;
5. Incorporating evidence for regional exchange economies, including Indigenous customary economies; and
6. Recognising the transformative impact of imported institutions on frontier societies.

To assist in understanding human interactions with the environment and allow their incorporation into the model, Chapter 3 following discusses the marine environment of the Archipelago of the Recherche, with particular reference to marine mammal species targeted by sealers and whalers.
Chapter 3 The environment and marine mammal resources of the Archipelago of the Recherche

Introduction

Understanding archaeological sites within their wider environment is fundamental as ‘the environment is one of the key factors shaping human response, and…aspects of the interplay between humans and their environment can be found in the archaeological record’ (Smith 1993).

The environmental and ecological boundary of the Southern Ocean frontier encompasses Australia and New Zealand’s southern coasts and islands. It is defined by the habitat of pinniped (seals and sea lions) and cetacean (whale) species, which sealers and whalers targeted for economic purposes.

Pinnipeds and cetaceans utilise specific environments for breeding, nursing, resting, migrating and foraging, while sealers and whalers required anchorages sheltered from prevailing winds, fresh water, game, salt and firewood resources. Like other major nodes of sealing and whaling activity along the Southern Ocean frontier, the Archipelago of the Recherche contains all of these necessary habitats and resources.

Islands in the Archipelago are predominantly migmatitic gneiss and granite domes, and other eroded Pre-Cambrian crystalline rocks of the same origin as the mountains on the Esperance Plain (Bindon 1996: 8; Smith 1993; Dortch and Morse 1984: 32). Submerged reefs combine with the exposed islands to shelter the adjacent mainland coast from high wave energies of the Southern Ocean, and provide habitats for a high diversity of marine life. Semi-protected eastward-facing bays such as Duke of Orleans Bay, Rossiter Bay, Barrier Anchorage, Thomas Fishery and Goose Island Bay provided shelter for vessels from prevailing southwest to northwest winds during the winter whaling season.

During the glacial maximum some 18,000 years BP when sea levels were 130m lower, the islands making up the Archipelago were once mountains on a coastal
plain, similar to those seen in the Esperance area today. Following the last marine transgression that saw sea levels rise to their present level between 18,000 and 6,000 years BP, the islands were gradually cut off from the mainland. Aboriginal sites and artefacts including stone artefacts, gnamma holes and lizard traps have been recorded on islands in the Archipelago. As there is no ethnographic evidence of Aboriginal watercraft having been being used in the region, it is believed that these sites represent prehistoric activity prior to the middle Holocene marine transgression that cut the islands off from the mainland (Dortch and Morse 1984: 38). Numerous small creeks and rivulets drain towards the coast, mainly into the sand dunes before being trapped in lakes behind dunes or other granite outcrops, or entering the sea. The granite outcrops are important sources for this water runoff.

Humans transformed coastal oceanic marine ecosystems through fishing and harvesting prior to modern scientific environmental and ecological studies, therefore it is impossible to know ‘pristine’ populations and ecosystems. Paleo-ecological, archaeological and historical reconstructions have been undertaken in some coastal oceanic regions to attempt to understand what pristine ecosystems may have been like (Jackson 2001: 5411). Sealing and whaling devastated pinniped and cetacean populations— for some species in Australia it is estimated by up to 90-95% (Jackson et al. 2016; Lancaster et al. 2010: 253; Ling 1999: 326;). Nineteenth century sealskin harvesting also transformed population structures and dynamics. In the case of the Australian fur seal ‘...the elimination of breeding capacity at 17 of 26 sites and an overall population reduction of up to 95%...would have almost certainly resulted in a loss of genetic diversity and a possible reduction in the evolutionary potential’ (Lancaster et al. 2010: 253). Current ranges of fur seals (genus Arctocephalus) are a result of 19th-century seal harvesting activities that caused local extinctions in some areas, and in many places populations are still recovering (
Figure 17).
The pre-harvest abundances of marine mammals in the Archipelago of the Recherche have not been accurately established. During Flinders’ visit to the Archipelago in January 1802 he wrote on 17 January 1802 that ‘All the islands seem to be more or less frequented by seals; but I think not in numbers sufficient to make a speculation from Europe advisable on their account, certainly not for the China market, the seals being mostly of the hair kind, and the fur of such others as were seen were red and coarse’ (Flinders 1814). The following month one of the earliest sealing captains to investigate the fur seal resources of Western Australia’s south coast, Captain Pendleton of the American sealing brig *Union* owned by Fanning and Co. arrived at King George Sound on 18 February 1802 hoping to obtain a cargo of 20,000 skins for the China market (Péron 1824: 125). A disappointed Pendleton reported that:

At Vancouver’s Seal Island, although it was the period in the season to expect the seals would be up in great numbers, there was nevertheless not above thirty
on the island. Here, after remaining some time, without any others arriving to increase their numbers, and having discovered none of these animals, while tracing to the westward, it was concluded most advisable to proceed and examine the coast to eastward. (Fanning 1833: 316)

After encountering French explorer Commander Nicolas Baudin just east of King Georges Sound (at a place Baudin subsequently named Baie des Deux Peuples—‘Bay of Two Nations’—now known as Two Peoples Bay) and receiving Baudin’s advice on better prospects to be found at Kangaroo Island, Pendleton sailed eastwards.

The following season another Fanning and Co. brig Catherine, commanded by Captain Henry Fanning, arrived in King George Sound to find a prearranged letter deposited on Seal Island by Captain Pendleton which Captain Fanning ‘…easily found, but was much disappointed on perusing its contents, to learn there was not the slightest prospect of procuring a cargo of fur seal skins on this coast’ (Fanning 1833: 331-332). The Catherine stayed in King George Sound to collect firewood (‘wooding’), water and hunt fresh game, then headed westwards to search for the Crozet Islands and Prince Edward Islands. There is no evidence that Captains Pendleton, Fanning, Baudin or Flinders encountered other ships or sealing gangs along the southern Australian coast between 1803 and 1804. During this time most colonial sealers from Port Jackson and Hobart/ Launceston were active in sealing grounds in Bass Strait and New Zealand.

Contrasting with Pendleton’s report is a later account from 1834 describing how Henty’s schooner Thistle left two sealing gangs ‘some distance to the eastward of King George’s Sound, to collect seal-skins, which abound in that quarter’ (PGWAJ 1/2/1834: 226) while Andrews (1959: 19) described the first settlers of the Archipelago as ‘seal poachers’ who had heard of the ‘vast colonies of Seals that live in the Archipelago’.

Depleted pinniped and cetacean populations are thus one of the remnant environmental signatures of sealing and whaling. The effects of such reduced populations within their wider ecosystems are unknown. Species specific biological—
historical reconstructions have been undertaken in other regions using population recovery rates, DNA studies and shipping records in order to determine prior distribution and pristine abundances of pinnipeds (Townshend 1935; Abbott 1979; Ling 2002; Lancaster et al. 2010), and these findings help to provide some extra understanding of the likely extent of sealing and whaling activities in these areas.

The main pinniped species with breeding colonies in the Archipelago of the Recherche are New Zealand fur seals (*Arctocephalus australis forsteri*) and Australian sea lions (*Neophoca cinerea*). An unknown factor is whether there once existed colonies of other pinniped species in the Archipelago—for example the Australian fur seal (*Arctocephalus pusillus doriferus*)—that were completely wiped out in other parts of Australia as a result of 19th-century sealskin harvesting (R. Campbell, pers. comm., February 2013).

The main cetacean species targeted by whalers along Western Australia’s southern coast were southern right whales (*Eubalaena australis*), humpback whales (*Megaptera novaeangliae*) and sperm whales (*Physeter macrocephalus*).

The islands and reefs of the Archipelago provide habitat for seal breeding colonies and haul-out (resting) sites, while the continental shelf provides foraging ground for both the New Zealand fur seal and Australian sea lion. The sheltered inshore coastal waters and eastward-facing bays provide breeding and calving grounds for right whales along their winter coastal migratory routes, and also lie along the path of humpback whale migratory routes. A unique location of ‘rubbing rocks’ was apparently found at Goose Island Bay at Middle Island:

The whales in their trek around Australia made this natural harbour a calling place to make use of the rocks nature has provided for them to rid themselves of the Acorn barnacles and other marine growths with which their bodies become infested during their stay in warmer climes. The rocks are remarkable for their boldness and steep sides, in this group there are no less than five, each rock presents an approximate surface of one hundred feet and reach to a height of twenty feet above high water, and lies apart from each other a distance of one hundred yards, during the cleansing operations which last several days the Whales do not leave the bay, they can be seen lolling about the surface waiting their turn to visit their rock. No more than one Whale has been observed to
approach the rubbing rock as these rocks are called at the one time, only one rock is used by the same speci [sic], other speci [sic] have their own rocks in the group, when their stay is over they make their way out to clear water by the same route as they used when coming in, and circle the Archipelago in continuence [sic] of their swim around the continent. (Andrews 1948: 90-92; 1959: 20)

Similar to the high biodiversity found on the granite domes on the Esperance Plain, the granite islands and reefs of the Archipelago provide a variety of undersea habitats that support a high level of marine biodiversity. The mingling of the Leeuwin and Flinders oceanic currents, combined with the steep continental shelf edge and deep canyons, result in regular upwellings of nutrient-rich, cold water that attract aggregations of fish, and the regular presence of apex predators such as sperm whales, killer whales, dolphins and sharks.

Sealers, whalers, settlers and south coast traders had a good understanding of the Archipelago’s local environment and its resources, and utilised native flora and fauna in specific ways. A hardwood tree known as a ‘Seal Club Tree’ that grew no higher than ten feet is described as having a stalk as ‘wide as a broom handle’, and had a round club root that was much sought after by sealers for their seal clubbing qualities (Andrews 1948: 86). This was probably a mallee (*Eucalyptus L’Her* (1789)) endemic to the region that fits the description such as the Twin Peak Island mallee (*Eucalyptus insularis*) (Florabase n.d.). An example of a club fitting this description is displayed in the Busselton Butter Factory Museum (Figure 18).
Figure 18. Wooden club probably used for sealing on display at Busselton Butter Factory Museum in 2008 (Ross Anderson/WA Museum).

Other coastal fauna targeted for their meat and eggs included Cape Barren geese, shearwaters (muttonbirds) and tammar wallabies.

**Oceanography and biogeography**

The undersea area along the Australian continental margin and adjacent seafloor are categorised into geomorphic zones that correspond with ecological data for ecosystems. The area from Cape Leeuwin to Point Dempster on the southern Western Australian coast, including the Archipelago of the Recherche, is broadly described as a ‘canyon, ridge and trough’ geomorphic region (Figure 19) (Heap and Harris 2008: 569).

The Archipelago of the Recherche is also included in the Southwest shelf near-shore marine bioregion (Figure 20) that extends from Rottnest Island around the southwest corner of the continent to Point Dempster, 185 km east of Esperance. The warm waters of the Leeuwin Current flowing southwards down the western side of the continent to Cape Leeuwin then follow the southern coast in an easterly direction, mixing with cooler Southern Ocean waters. The Archipelago is described as being a ‘key ecological feature’ of the Southwest Shelf Southern Province marine bioregion (DEH 2008: 52), providing 35203 km² of habitat for a high diversity of warm temperate species.

![Southern Western Australia marine geomorphic region](image_url)

**Figure 19. Southern Western Australia marine geomorphic region (Region 6) showing southwest continental shelf (dark blue), continental rise (mid-blue), Albany series of canyons (red) and Abbysal Plain (light blue) (Heap and Harris 2008: 569).**
The Leeuwin Current has predictable eddy currents that occur off Cape Naturaliste, Cape Leeuwin, Albany and Esperance, that are probably caused by a combination of seafloor and coastal topography. The deep, cold water Flinders current follows the topography of Australia’s southern coast from South Australia to Western Australia in a westerly direction, and runs counter to the Leeuwin current at a depth of around 600m. It is an important source of nutrients as deep, cold water upwellings off Kangaroo Island, Albany and the Archipelago of the Recherche are significant for the productivity of coastal and continental shelf marine ecosystems (DEH 2008: 52).

The southern province of the Southwest marine bioregion off Western Australia encompasses the edge of the continental shelf, the little understood Diamantina Fracture Zone and the Albany Group of some 23 deep water canyons including the Albany Canyon, Vancouver Canyon, Bremer Canyon and Esperance Canyon. The currents and upwellings that occur in these undersea canyons provide important habitat and foraging grounds for school sharks, demersal fish species and large predators such as sharks, whales, orcas, dolphins and seals. The Albany Group of canyons is described as a ‘key ecological feature associated with enhanced productivity, aggregations of marine life and are unique seafloor features’, and include a sperm whale feeding area south of Esperance (DEH 2008: 77).
Pinnipeds

The islands and waters of the Archipelago provide an ideal habitat for pinnipeds, including both seals and sea lions.

In Australia and New Zealand, 19\textsuperscript{th}-century sealers hunted Australian fur seals \textit{(Arctocephalus pusillus doriferus)}, New Zealand fur seals \textit{(Arctocephalus forsteri)}, Australian sea lions \textit{(Neophoca cinerea)} and New Zealand sea lions \textit{(Phocarctos hookeri)} for their skins and oil. Southern elephant seals \textit{(Mirounga leonina)} were targeted for their oil, though these mainly lived on King Island and other islands in Bass Strait, and on Macquarie Island in the sub-Antarctic (Ling 2002: 117), rarely appearing in the Archipelago of the Recherche.

Of these varieties New Zealand fur seals \textit{(Arctocephalus forsteri)} and Australian sea lions \textit{(Neophoca cinerea)} are the main species found in the Archipelago of the Recherche today (Ling 1999: 326). An unquantified number of these animals were hunted and killed in Western Australia. In 1999 Ling estimated Western Australia’s New Zealand fur seal population to be some 10\% of the stocks that existed prior to 19\textsuperscript{th}-century harvesting (Ling 1999: 326; Campbell 2005; Campbell et al. 2014).

In an historical analysis of seal skin cargoes exported from Australia, New Zealand and the Bounty, Auckland, Antipodes, Campbell and Macquarie Islands between 1823 and 1949, Ling (1999: 338) identifies 8,448 fur seal skins harvested from Western Australia, consisting of 1\% of the total of 1,366,880 skins harvested in total (Figure 21). He describes his calculation as having been based on limited historical information:

Records of seal skin harvests from Western Australia are sparse and cover the period 1823 to 1843... However, it seems that seals were being hunted around King George Sound much earlier. In 1803, sailors from the French ships \textit{Geographe} and \textit{Casuarina} encountered an American sealing party from the brig \textit{Union} in a bay to the east of the Sound (Garden 1977). There are no records of seal skin cargoes before 1823 in the secondary sources consulted; however, there may be records in shipping documents held by American institutions. In 1835, seal skins to the value of £1,500 sterling were handled...
through the port of Albany. Rintoul (1964) quotes values of seal skins from 15 shillings to more than $2. If an average price of £1 a skin is applied, that particular consignment would have amounted to about 1 500 skins....Tallied cargoes up to 1843 amounted to 7 159 skins from which the one untallied cargo was calculated to be 795, giving a total recorded harvest by colonial vessels of only 7 954 skins in Western Australia. Including the 1920 figure gives a total of 8 448 fur seals recorded as having been obtained in Western Australia. (Ling 1999: 144)

**Figure 21. Numbers and percentages of total seal skins harvested (n=1,366,880) from the Australasian region between 1790-1949 (after Ling 1999: 338).**

This comparatively small percentage of the Western Australian harvest explains its relative invisibility in historical records, with most historical data and accounts relating to the better documented Bass Strait, South Australian, New Zealand and sub-Antarctic sealing industries.
Australian sea lion (*Neophoca cinerea*)

Australian sea lions (Figure 22) are one of the world’s rarest seals, and have showed limited recovery from the impacts of 19th-century sealing in contrast to New Zealand fur seals that have increased in abundance and range.

![Australian sea lion](image)

**Figure 22.** Australian sea lion (*Neophoca cinerea*) at Daw Island, Archipelago of the Recherche (Ross Anderson/WA Museum).

Contributing to this slow demographic response is the extreme population structure that characterises the species, with each breeding colony effectively exchanging no females (Campbell et al. 2008). It is unclear whether this represents a historical pattern that pre-dates sealing, or is a response to the low densities caused by sealing (ibid). They belong to the *Otariidae* family of pinnipeds that have ear flaps, and are capable of walking on four flippers on land, unlike true seals.

Males reach a length of 250-300cm and weigh 250-300kg, while females reach 130-180cm in length and weigh 70-100kg. Females will only return to their birth colony to breed, and this limits the populations’ capacity to extend their range. Australian sea lions have a unique breeding cycle unlike any other mammal. They breed every seventeen months, over a period of five months, so that their breeding cycle might be in summer one year, and winter the next. Different breeding colonies also breed asynchronously, so that breeding is taking place at different times in different colonies (Gales et al. 1992; DEH 2005).
The distribution of Australian sea lions is extensive ranging from the Houtman Abrolhos Islands off the mid-west Western Australian coast, to The Pages islands east of Kangaroo Island, though the populations are fragmented by distance. Current numbers are estimated to be 11,200 animals among 67 breeding colonies, of which 30% of the population is in Western Australia (Figure 23) and 70% in South Australia.

Figure 23. Australian sea lion (*Neophoca cinerea*) breeding colonies and haul-out sites in Western Australia (data courtesy Richard Campbell, Department of Parks and Wildlife).
Since the 19th-century sealing industry decimated Bass Strait populations, their range and numbers have declined, and there are no longer any breeding colonies in Bass Strait or Tasmania. It is estimated 3000 Australian sea lion pelts were harvested from the Archipelago of the Recherche during the 19th century, which is the estimate of the entire Western Australian population today. Several colonies are known to have disappeared from the Perth and Albany area. Australian sea lion populations have not recovered at the same rate as Australian and New Zealand fur seals (DEH 2005).

Australian sea lions’ preferred habitats are beaches, rocky platforms or outcrops, and caves at the bottom of steep cliffs. They are known to be seafloor foragers, which limits their feeding areas to the submerged continental shelf, unlike New Zealand and Australian fur seals that also forage in the water column. Breeding colonies and haul out sites are recorded along the base of the Bunda and Baxter Cliff formations constituting the edge of the Nullarbor Plain as it meets the Great Australian Bight (Dennis 1996).

**New Zealand fur seal (Arctocephalus forsteri)**

Andrews (1959: 91) described how whalers operating in the Archipelago of the Recherche ‘...in the off season [Austral summer]...turned their attention to the capture of the “Hair and Fur Seal”, large numbers were taken, at that time no close [sic] season existed young and old were slaughtered, the Fur speci [sic] were the most sought after as their pelts were more valuable and could be used for clothing’.

---

Figure 24. New Zealand fur seal (*Arctocephalus forsteri*) (Photo: Ozwildlife).
The New Zealand fur seal (Figure 24) is today found in Western Australia, South Australia, Tasmania, New Zealand and sub-Antarctic Islands, with a total population of 200,000 animals, and the Australian population estimated at 100,000 animals. Other common names for the New Zealand fur seal are Antipodean fur seal, Australasian fur seal, Black fur seal and South Australian fur seal.

Figure 25. New Zealand fur seal (*Arctocephalus Forsteri*) breeding colonies and haul out sites in Western Australia (data courtesy Richard Campbell, Department of Parks and Wildlife).
In Australian waters New Zealand fur seals breed in summer with pups born annually between 3 December and 18 January (Gales 2000: 166; Goldsworthy and Gales 2008). Adults vary in size but males can reach lengths of up to 2m and weigh between 150-250kg, while females are 1.5m and 30-50kg. There are small genetic differences, but no morphological differences between Australian and New Zealand populations (Goldsworthy and Gales 2008). Their main foraging grounds include the continental slope, mid-ocean waters above the continental shelf, and deeper oceanic waters off the continental shelf.

Sealers targeting New Zealand fur seals in Australia generally operated during two sealing seasons: December-January when breeding adults were killed, and April to June when ‘post-moult yearlings were taken in their prime, first adult-type pelage’ (Ling 1999: 327). Populations of New Zealand fur seals are recovering well from 18th, 19th and early 20th-century sealing, and are expanding their geographic range by establishing new breeding colonies (Goldsworthy and Gales 2008; Campbell et al. 2014) (Figure 25). The last known sealing expedition in the Archipelago in 1920 harvested a total of 496 fur skins and 333 hair skins (Letter Secretary of Fisheries Department to Acting Comptroller of Stores 26/11/1920 SROWA 1920/1993; Letter Recherche Syndicate to Chief Inspector Fisheries 21/9/1920 SROWA 1920/1993).

Recent research suggests the current Western Australian population of approximately 17,200 animals is approaching carrying capacity (Campbell et al. 2014). Overall, the available historical and biological data suggest that Western Australian New Zealand fur seal abundances were never as high as other Southern Ocean locations (ibid), possibly related to oceanographic and ecological factors such as ocean currents, temperature and food sources.

**Cetaceans**

The main cetacean species targeted by whalers in Western Australian waters and discussed below are the Southern right whale (also known as ‘black whales’—*Eubalaena australis*), humpback whales (*Megaptera novangliae*) and sperm whales (*Physeter macrocephalus*). Fin whales, blue whales, sei whales and pygmy blue whales also aggregate and forage in Western Australian coastal waters, but these species swim too fast and sink when killed, causing insurmountable problems for whalers in the age of oar and sail (Townshend 1935: 4).
Southern right whale (*Eubalaena australis*)

Southern right whales are a baleen whale species that appear close to the southern coast of Australia between May and October annually as, after feeding in and migrating from Antarctic waters, they seek sheltered coastal bays for calving and nursery grounds (Figure 26). The distribution of southern right whales in Australia extends from Exmouth in northwest Australia to Stradbroke Island in southeast Queensland, including Tasmania. Important aggregation and calving areas include protected bays along Western Australia’s entire southern coastline from the Head of the Great Australian Bight through to Twilight Cove, Israelite Bay, Cape Arid, Albany, Cheynes Beach, Cape Riche, Doubtful Island Bay and Flinders Bay in Western Australia (Department of Environment and Heritage 2005b) (Figure 27).

![Whale migratory patterns](image-url)

**Figure 26.** Southern right whale and humpback whale migratory patterns, feeding and breeding grounds in the Australasian/ Antarctic region (International Fund for Animal Welfare).

Mature females can weigh up to 85 tons and grow 17.5 m in length while males are lighter and smaller averaging 55 tons and 15.5 m length. Newly born right whale calves are born weighing one ton and are around 5.5 metres in length. Their natural predators during the vulnerable birth and nursing stage include killer whales (*Orcinus orca*) and great white sharks (*Carcharodon carcharias*) (Department of Environment and Heritage 2005b).
Figure 27. Distribution (migration) and aggregation areas of the Southern right whale (after DEH and NHT 2005b).

Nineteenth century whalers targeted Southern right whales as they were slow swimming, produced a lot of oil and floated when killed. They were commercially valuable for their oil and baleen (‘bone’). In his memories of whaling on Western Australia’s south coast, Albany whaler Captain James J. Sale (1918) recalled that ‘...the right whale is the only whale with no trigger on his back and he is black and smooth, a very pretty fish. They make from 5 to 15 tuns [a large cask] of oil. This is the whale from which they got the black bone which was so much used in those days...The American whalers seldom troubled about bay whaling except at Cape Arid; they went after the right whale, the whale with the valuable black bone’.

Depending on their size right whales were described by whalers as ‘one ton’ or ‘two ton’ whales for the amount of bone (baleen) that could be recovered from them, the value of the bone often exceeding the value of the oil obtained from them (Andrews 1948: 80). Middle Island was known as the ‘right whale station of the Bight’ (Andrews 1959: 20). It is estimated that in the early 19th century prior to decimation
of stocks through whaling, the population numbered some 60,000 whales. Since a moratorium on hunting southern right whales was declared in 1986, the present population of some 1500 animals has been increasing at the rate of 7% per annum. Southern right whales are currently protected in Australia as an endangered species (Department of Environment and Heritage 2005b).

**Humpback whales (Megaptera novaeangliae)**

Humpback whales are a species of baleen rorqual whale found worldwide, although different populations are geographically separated. In Australia the west coast and east coast populations (known as Group D and Group E respectively by whale researchers) are separate migratory populations. It is estimated that nineteenth and twentieth century whaling eliminated 95% of the population of humpback whales worldwide, with the Australian population decimated to 3.5-5% of the pre-whaling population (Department of Environment and Heritage 2005a: 1). Since a worldwide moratorium on killing humpback whales, the numbers of the Australian population have had a rate of increase of about 10% since 1978. However, they are still listed as a vulnerable species (Department of Environment and Heritage 2005a: 1).

Humpback whales migrate to calving grounds along the western and eastern Australian seaboard, their movements peaking between mid-June (northward migration route from Antarctic waters) and mid-October (southward migration route returning to Antarctic waters). The western population’s migratory route follows the Western Australian coast from the southwest tip to Northern Territory waters as far as Darwin (DEH 2005a: 4).

The main aggregation and calving areas in Western Australia for humpback whales are Camden Sound, Shark Bay, Exmouth Gulf, Geographe Bay and Flinders Bay, with individuals and groups occasionally appearing along the southern Australian coast (Figure 28). During the 19th century along Western Australia’s south coast Captain Sale recalled ‘I have seen as many as 200 humpbacks going past Cheyne’s Beach in one day: of course we got as many as we wanted...The average yield from a humpback was about 4 tuns. This whale was a regular visitor and he called in to all the bays open to the east when going that way and all the bays open to the west on his return trip’ (WA 7/3/1936 p.4 c.6).
Sperm whales (*Physeter macrocephalus*)

One of the great whales, and part of the *Odontocete* or ‘toothed whale’ family, sperm whales are distributed throughout the world’s oceans. Mature male ‘bulls’ can be up to 15-18m in length and weigh 35-45 tons (31,750-40,000 kg) while females reach a maximum size of 11m with a maximum weight of 13-14 tons (12,000-12,700kg).

Sperm whales are the deepest diving of whales, and can dive to 1,000m for over an hour, though average dives are 25-50 minutes to depths of between 300-600 feet (American Cetacean Society 2006).

Current sperm whale populations worldwide are estimated to number about 360,000 animals, approximately a third of the pre-whaling population of 1,100,000 animals. As well as oil, whalers targeted sperm whales for spermaceti—a clear, light oil found in the head of the sperm whale that had industrial applications—and ambergris, a valuable product found in sperm whale stomachs with a variety of manufacturing applications including perfume. Most male sperm whales prefer waters in the higher latitudes, with females and calves preferring to stay in warm, tropical or sub-tropical
waters. Male sperm whales will migrate to Equatorial waters during breeding season (American Cetacean Society 2006).

In 1935, Charles Haskins Townshend, Director of the New York Aquarium published distribution charts showing the locations of 36,908 sperm whale catches recorded from 1,665 American whaling ship voyage logbooks from between 1761 and 1920. Townshend’s charts show sperm whales were concentrated and caught year-round off Western Australia’s southern coast and continental shelf between the Naturaliste Plateau and Great Australian Bight, part of the ‘Coast of New Holland Ground’ (Figure 29).

Figure 29. Detail of Townshend’s world chart ‘Distribution of the sperm whale based on logbook records dating from 1761 to 1920: Chart A April–September, inclusive’ (Townshend 1935: Appendix).

Pollock Reef is the furthest outlying exposed reef of the Archipelago of the Recherche and close to the edge of the continental shelf. It is described as an incredibly productive fishing ground (Warwick Hill, 2012, pers.comm.), most likely due to its proximity to the shelf edge, a large meso-eddy and corresponding exposure to cold water carrying nutrient-rich upwellings. The rest of the shelf contains deep undersea canyons that are responsible for productive marine ecosystems that attract sperm whales:
The Albany Canyons, including 32 canyons along 700 km of continental slope, are believed to be associated with small periodic upwellings that enhance productivity and attract aggregations of marine life. Anecdotal evidence indicates that this area supports fish aggregations that attract large predatory fish, sharks and toothed, deep-diving whales such as the sperm whale. (DEH 2008: 50)

Albany whaler Captain Sale recalled that:

The Americans also went after the sperm whale, which used to stay about 40 or 50 miles off shore. These whales abound even today off the coast, their feeding ground lying between Pollock Reef and Cape Leeuwin. (WA 7/3/1936 p.4 c.6)

Environmental impacts

Some other environmental impacts caused by sealers and whalers in Western Australia are the introduction of rabbits on Goose Island to provide a reliable food source, which has had the long-term effect of displacing shearwater colonies (J. Lavers, pers. comm. 11 December 2013), and the clearing of land on Middle Island through firewood collecting and gardening. Cape Barren Geese were hunted for food, and shearwaters (‘muttonbirds’) were targeted for their eggs, oil, meat and feathers. Sealers are described as having killed ‘immense numbers’ of quokkas for their fur to make rugs and jackets (Abbott 2006: 636).

Discussion

The marine environment of the Archipelago of the Recherche has high marine biodiversity and provides habitat for breeding and resting aggregations of a number of commercially valuable pinniped and cetacean species hunted in the 19th and 20th centuries. Their marine habitat was a fundamental part of the cognitive maritime landscape for sealers and whalers who relied on knowledge of seasonal aggregations and rich hunting grounds for their economic survival. Due to 19th-century seal and whale harvesting, some of these species remain listed as endangered, threatened or vulnerable.

The environmental range of commercially targeted species such as New Zealand fur seals, Australian sea lions, Southern right whales, humpback whales and sperm whales defined the available ‘maricultural exploitation area’ (Westerdahl 1992: 5)
for sealers and whalers. Where this environmental boundary meets the coast of Australia and its offshore islands it forms the primary boundary defining the extent of the Southern Ocean frontier where informal exploration, cross-cultural contact and settlement occurred. Locations with high seasonal or year round marine mammal aggregations became nodes for sealing and whaling activities. In some areas such as Bass Strait, Westernport, Victoria’s western district, Kangaroo Island and King George Sound, seasonal activities led to semi-permanent and ultimately permanent settlement.

In recent times Western Australia’s New Zealand fur seal population appears to have recovered to a point of reaching carrying capacity (Campbell et al. 2014), giving an approximate idea of the maximum number of animals likely to have been present pre-harvesting. While it is impossible to calculate pristine abundances or recreate pre-harvest ecosystems, if a population of around 17,000 animals is possible in modern times, this environmental data supports Ling’s (1999: 144) admission that a figure totalling 8448 fur seal skins harvested from Western Australia between 1823 and 1843, and in 1920 based solely on shipping data, is an underestimate. Allowing for a minimum population of 10% for reproduction purposes, and with the evidence provided in Chapter 5 for seasonal sealing being conducted along Western Australia’s south coast throughout the 19th century, it is reasonable to estimate that over 15,000 fur seal skins could have been harvested from Western Australia over the course of the 19th century. In percentage terms this is still relatively insignificant (<2%) compared to sealing activity in Bass Strait, New Zealand, Kangaroo Island and sub-Antarctic islands.

The following chapter will apply the knowledge gained from this environmental study to address the historical and archaeological research questions stated in Chapter 1, particularly as they relate to the broader maritime cultural landscape (Chapter 7).
Chapter 4 Historical archaeological research methodology

Restatement of research aims
In light of the review of research literature in Chapter 2, the major aims of this investigation are restated as the collection and analysis of historical and archaeological evidence related to sealing and whaling in the Archipelago of the Recherche, and to advance a theoretical position concerning the related development of early, informal maritime industries and societies along the south coast of Western Australia with their associated cross-cultural engagements.

Overview of research methods
This investigation combines historical research with archaeological data gathered from maritime, historical terrestrial and Aboriginal sites in the area under study over the past thirty years. This approach has been adopted in order to integrate a variety of archaeological site types related to sealing and whaling, and to provide a greater insight into the complexity of the cross-cultural landscape of the Archipelago of the Recherche.

The method follows a definition of historical archaeology as not being chronologically focused on a particular period or episode of history—for example the post-colonial period of European settlement of Australia—but rather by having the ability to compare some form of document with the archaeological record, regardless of recent age or antiquity (Orser 2004: 9-12). The method adopted and described below recognises that historical archaeological artefacts and sites may contain different layers of social and historical meaning that can reveal otherwise unobtainable insights into past events and lifeways, including those of non-literate peoples (Orser 2004: 43-46). Historical records and archaeological data are both assessed in an independent and systematic way, to avoid prejudicing findings by favouring one source over the other (Feinmann 1997: 371).

To address the main research question of this thesis required, first, an historical research component to be undertaken, as no comprehensive historical study had been undertaken into the development, methods or extent of sealing in Western Australia. Historical research to date has focused on 19th and 20th-century whaling, particularly the 19th-century colonial shore whaling industry which has left a number of historical
archaeological sites along Western Australia’s coast (e.g. McIlroy 1987; Gibbs 1995, 1998, 2000; Wolfe 2003; Dickson 2006).

To gather the necessary historical and archaeological data the following main activities were required:

1. Conduct background historical research into a range of primary, secondary and tertiary sources to describe the nature, duration and extent of sealing and whaling activities in the Archipelago of the Recherche;
2. Provide the environmental context to better understand the species, their distribution and impacts to marine mammal resources targeted by sealers and whalers in the Archipelago of the Recherche;
3. Undertake an archaeological literature review to identify key research themes, material culture, environmental site patterning and archaeological signatures associated with sealing and whaling sites in the Australasian/Southern Ocean region;
4. Gather archaeological data from relevant Aboriginal, historical and maritime archaeological surveys and excavations (including collections held by the WA Museum) in the study area;
5. Create a database of all known and potential archaeological sites;
6. Conduct further maritime and terrestrial fieldwork to investigate archaeological sites identified through the historical study;
7. Interrogate and analyse the combined historical, archaeological and environmental data; and
8. Discuss findings and present conclusions.

**Historical research methods**

Sites in the Archipelago of the Recherche have seen overlapping phases of cross-cultural activity from prehistoric times through to exploration, sealing, whaling, salt collecting and pastoralism. A thematic approach was adopted to investigate different activities through time, rather than a chronological approach. For example, both sealing and salt harvesting were carried out on Middle Island from the early 19th century through to the 1920s, and both prehistoric and historic-era Aboriginal sites and artefacts are present. The Australian National Historic Themes (ANHT) framework (Australian Heritage Commission 2001) was consulted to identify basic
themes, with additional themes included as being specific to this research such as the role of sealers and whalers as explorers; processes of colonisation and settlement of the Southern Ocean frontier; the impacts of sealing and whaling on traditional Aboriginal society; the involvement of Aboriginal men, women and children in the sealing and whaling industries; the diverse ethnicities of whaling and sealing crews; the development of coastal shipping and trade networks; and the exploitation of other natural resources in the Archipelago that may have impacted the archaeological record such as shipwreck salvage, salt harvesting, guano mining, fishing, agriculture and pastoralism. An issue in researching maritime industries in Western Australia is that activities conducted by foreign or eastern colonial interests are unlikely to have resulted in the deposition of historical records in Western Australian archives or reports in Western Australian newspapers. In the case of thematic shore whaling investigations in Australia, most research has been undertaken on a state by state basis, and archival evidence has not been linked with archaeological evidence for some sites (Staniforth 1998: 63). To overcome this issue the research methodology takes into account intercolonial and foreign sources of data.

**Cross-cultural landscape approach to the research**

The Archipelago of the Recherche is a cross-cultural landscape with both terrestrial and submerged prehistoric and historic sites. A key research question incorporated into the methodology is whether culture contact in the course of historical activities between Aboriginal and non-Aboriginal people could be identified in the archaeological record.

This research method incorporates survey and assessment of Aboriginal sites in areas of historical activity and to determine, if possible, whether they provide evidence for cross-cultural contact. As part of an historical continuum, evidence for Aboriginal involvement in sealing, whaling, salt harvesting, agriculture and pastoralism is directly relevant to Aboriginal people who retain personal and familial connections with historical places and events.

**Formulation of archaeological research questions**

Historical records provide information on particular people, places and events, but are fundamentally incomplete as not all details are recorded. Archaeological evidence can provide new information on activities not recorded in historical
documents, and can provide fine-grained detail and insight into specific aspects of human behaviour and activities. Alternatively, the archaeological evidence may conflict with the historical record, providing new dimensions to our existing knowledge.

The archaeological process involves:

1. Formulating archaeological research questions and preparing a research design;
2. Collecting archaeological data from sites through fieldwork surveys and excavations;
3. Identifying additional research questions;
4. Interrogating the data (artefact identification, provenance, material composition, scientific analyses), and testing the questions/hypotheses; and
5. Analysis and interpretation.

To gain maximum information from archaeological data, clearly defined research questions should guide the archaeological process. The key research themes identified in the historical study and archaeological literature review guided the archaeological approach to investigating and recording sites and artefact analyses.

Further site-specific research questions are presented in Chapters 7-10.

**Environmental sources**

Nineteenth century sealing and whaling involved the maritime-based exploitation of marine mammals. The oceanography of the region and zoology of target species of pinnipeds and cetaceans are outlined in Chapter 3.

An understanding of the zoology and habitat of these targeted marine mammals is necessary to correlate population numbers, distribution, breeding grounds, breeding cycles and seasonal migration routes with archaeological sites. Sealers and whalers targeted species using hunting methods involving a great deal of personal risk, while operating in the marine environment also had a number of risks. Understanding their target species’ behaviour and habitat meant sealers and whalers could reduce their exposure to risk, and maximise their chances of success—although their understanding did not extend to long-term sustainable management.
Biologists interested in pristine abundances, population recovery rates and distribution of pinnipeds in Western Australia have conducted historical research using sources such as ships’ logbooks, newspapers, explorers’ journals and shipping data (e.g. Ling 1999, 2002; Campbell 2005). Their studies greatly assist in attempting to determine the extent and range of sealing and whaling activities. Other scientific studies of marine mammals and the southern Western Australian marine environment were accessed using keyword-based on-line searches through digital libraries such as JSTOR.

Archaeological sites do not exist in isolation but are part of wider cultural networks and trading routes, and are also intrinsically part of their natural landscape. Researchers such as Westerdahl (1992), Stuart (1998), McNiven (2003) and Duncan (2006) have demonstrated how geographic and cultural factors affect the type, location and distribution of archaeological sites. Understanding the broader environment can assist in understanding and interpreting past human behaviour, and to predict potential site locations. For example, Gibbs (1995) found that shore whaling stations on Western Australia’s south coast were typically chosen for an ideal combination of geographic features and natural resources including fresh water sources, high ground for lookouts, sandy beaches to pull up whaleboats, gently shelving sheets of granite in inter-tidal zones for whale flensing platforms and sheltered anchorages. These natural and geographic features are as much a feature of the sites as their material culture and archaeological features, and assist in predicting the location of other sites that may be undocumented.

Historical sources

Primary sources

The research method sought to identify new primary sources including official records, archives, newspaper articles, journals and logbooks. As secondary sources sometimes misquote or do not include critical information from primary source documents, these were checked against the primary source references wherever possible.
Historic Newspapers

Digitised historic Australian newspapers on-line were searched using the National Library of Australia’s ‘TROVE’ website. Keyword searches were carried out using words including ‘sealing’, ‘sealers’, ‘whaling’, ‘whalers’, ‘Recherche’, ‘Archipelago’ and ‘Middle Island’, and name searches on key vessels and individuals on all available newspapers for the period 1830-1930. Early New South Wales, South Australian, Tasmanian and Victorian newspapers were also searched for information on sealing and whaling, specific ships of interest and shipwrecks. The earliest newspaper available is the *Sydney Gazette and New South Wales Advertiser* published from 1803 to 1842, while the earliest Western Australian newspaper available is the *Perth Gazette and Western Australian Journal* published from 1833 to 1847.

Newspapers provide a range of information for shipping arrivals and departures that often include cargoes and passengers carried and intended destinations, ‘Claims and Demands’ advertisements that list crew and passengers’ names for departing vessels, general shipping news, accounts of shipwrecks and shipwreck survivors, classified advertising for tenders, salvage and auctions of shipwrecks and cargo, advertisements by shipping merchants, government announcements and gazettal notices.

Information relevant to mariners include Sailing Directions, Notices to Mariners, and reports by masters of sightings of uncharted islands, reefs, navigation hazards and communication with other vessels at sea.

Journalists and contributors’ accounts, interviews and stories provide either direct experience of sealing and whaling activities, or second-hand reports of activities.

Although newspapers are primary sources, they may contain inaccurate or wrong information. Fabrication, media exaggeration and hyperbole were as common then as they are now. Nevertheless, newspapers provide a wealth of information that when combined with other checkable sources and archaeological evidence add greatly to our understanding of the historic, economic and social environment of the time.
Colonial government records

Colonial government records are an important primary source as they contain detailed information about people and activities related to the early development of Australia. They are usually concerned with matters of administration and governance, and can provide specific information on people, places and events.

The Western Australian State Records Office (SROWA) holds Western Australian colonial and state government files and maps, with a useful on-line search function ‘AEON’ (Archives Explored Online). The SROWA holds a variety of archives including microfilms, maps and paper files. Keyword searches using words such as ‘sealing’, Middle Island’ and ‘Recherche’ were used to identify records of interest. Colonial and State government records relating to the Archipelago of the Recherche include correspondence relating to salt harvesting, pastoral and mining leases, the shipwreck and salvage of SS Penguin and land and wildlife management. Colonial Secretary’s correspondence, Albany Court House Records and Police Notebooks contain information on maritime activities. Records include the declaration of James Manning, survivor of the Mountaineer (1835) shipwreck, and subsequent court records relating to his accusation of theft brought against sealers John ‘Black Jack’ Anderson and Isaac Winterbourne that are the primary sources for what we know about sealing and activities on Middle Island at this time. Records of ‘plaints’ made by people recording alleged offences such as theft, desertion or smuggling also give information on maritime activities and identities. All relevant files were ordered and copied for research purposes.

The Colonial Secretary’s Papers (CSP) 1788-1825 are held in the State Library of New South Wales (SLNSW), with an on-line index. The CSP cover a wide range of government administration related to the responsibilities of the Governor of New South Wales. The CSP on-line index was searched using keywords for names of people, places and shipwrecks, with particular reference to Western Australia/ New Holland and King George Sound. Photocopies of the Colonial Secretary’s original inwards and outwards correspondence relating to sealing, exploration, the wrecking of Belinda (1824) and rescue of Belinda’s crew by the Nereus were ordered and transcribed.
The Mitchell Library in the State Library of NSW holds an indexed archive of business and family papers for the Berry, Wollstonecraft and Hay families. Berry and Wollstonecraft were agents for *Belinda* at the time of its loss. A UWA research grant was awarded to allow the author to visit the Mitchell Library to access these archives, with relevant documents photographed and transcribed.

**Explorers' accounts and journals**

Logbooks and journals of explorers known to have encountered and described seals, whales, and sealers and whalers on the south coast of Western Australia between 1792 and 1850 include those of Captain George Vancouver (1798), Captain Dumont D’Urville (1837), Captain Matthew Flinders (1814), Francois Péron (1824), Captain Edmund Lockyer (1826), Captain Phillip Parker King (1827) and Edward John Eyre (1845). Given the rarity and difficulty of access to these primary sources, most of these accounts were accessed as translated, transcribed and/or reprinted versions, or as transcribed digital copies.

The journals of George Augustus Robinson, compiled and indexed into the edited monographs *Friendly Mission* (Plomley 1966) and *Weep in Silence* (Plomley 1987) are key sources for early 19th-century Bass Strait sealing and Aboriginal Tasmanian/Australian studies that identify individual sealers and Aboriginal people involved in Tasmanian, Victorian, South Australian and Western Australian sealing. Robinson’s observations provide a valuable insight into the activities, society, economics and material culture of resident sealers in Tasmania, which can be usefully applied to resident sealers in Western Australia.

**Local history sources**

The Esperance Bay Historical Society library holds information on whaling and sealing in the Archipelago of the Recherche, archaeological sites and other historic activities in the area.

**Western Australian Museum files**

The Department of Maritime Archaeology’s Esperance Area file contains information such as newspaper clippings, correspondence and reports from members of the public to identify archaeological sites in the area. The Department also holds individual historic shipwreck files, field day books, drawings, site plans, and underwater photographs for historic shipwreck sites including *Belinda* (1824).
Personal communication

Personal contact was made with archaeologists, genealogists, Traditional Owners, biologists, historians, historical societies, fishermen and members of the public with research interests in the Archipelago of the Recherche, and whaling and sealing.

Maps and charts

Topographical maps and nautical charts are valuable sources for names and locations of prominent landmarks, buildings, wells, water sources and coastal features, navigational aids, bathymetry, recommended routes for safe navigation, navigational dangers, ports, anchorages and information on tides and currents.

Secondary sources

Books, monographs and articles

Secondary sources on Kangaroo Island, New Zealand, Southern Ocean and Bass Strait sealing and whaling provided additional background context on the Southern Ocean maritime frontier relevant to the Archipelago of the Recherche. Bibliographic references in secondary sources provided additional leads to other primary and secondary sources. This helped to develop a broader understanding of maritime history specific to sealing and whaling, the material culture of sealing and whaling, individuals involved and the social and economic environment of the time.

Shipping sources

An understanding of the number of ships that sailed to Western Australia on sealing and whaling voyages is necessary to gauge the amount of activity, cargoes carried, ports of visitation and thus potential for archaeological sites. Ships could have voyaged from abroad, or from colonial ports such as Sydney and Hobart. Some foreign sealing and whaling voyages have been recorded, though many—especially if they did not enter an Australian port or were reported by other vessels—are not recorded in Australian shipping sources. Vessel logbooks in overseas libraries may hold information on as yet undocumented voyages. However, investigation of overseas collections was beyond the scope of this investigation.

Maritime historians have collated early shipping arrivals and departures information for Australian ports from a variety of sources including historic newspapers. The lists are well referenced and indexed, and have been published for most Australian
ports. These publications usually include referenced information on the vessel, master, cargo, port of origin/destination, passengers, and any notable events relating to the voyage such as damage and repairs, strandings, shipwrecks, deaths, loss of cargo and salvage. All available shipping arrivals and departures were checked for Tasmania between 1803 and 1833 (Nicholson 1983); Sydney between 1788 and 1825 (Cumpston 1963) and 1826 to 1840 (Nicholson 1981) and South Australia up to 1850 (Sexton 1990). Individual dated and referenced entries were cross-checked against the original newspaper sources using TROVE (see above).

The Pacific Manuscripts Bureau (PMB) Joint Copying Project provided microfilm copies of records of American (primarily New England) whaling ship logbooks to a number of Australian libraries, including the Battye Library. Dickson (2006) provides partial transcriptions of logbooks of American whaling ships that visited the south coast of Western Australia, providing valuable leads to information on the activities of whalers on the south coast, and in the Archipelago of the Recherche. Following identification of particular ships of interest in Dickson (2006), logbooks were checked to confirm information on anchorages, duration of voyages and activities.

The WA Museum’s Department of Maritime Archaeology shipwreck database, and Department of Maritime History vessels database were searched for information relating to sealing and whaling ships and shipwrecks in Western Australian waters.

Lloyd’s *Register of Shipping* was checked for detailed information on vessels within the scope of this investigation.

**Academic theses and journal articles**

Academic theses and peer-reviewed journal articles in the fields of archaeology, anthropology, zoology, social sciences and history relevant to this thesis were identified through key word searches in on-line searches of library catalogues and journals (e.g. JSTOR) and downloaded for research purposes. One important academic study is Gibbs’ (1995) PhD research into shore whaling stations in Western Australia. Gibbs identified a number of known and potential sites of archaeological interest in the area under study, and provides detailed background into shipping, economic, social and ethnic aspects to the lives of shore whaling crews on Western Australia’s southern and western coasts.
Archaeological methods

Fieldwork
Archaeological data was obtained through assessment of past archaeological surveys and excavations, and fieldwork undertaken in the course of this research.

Archaeological literature review
Archaeological reports of surveys and excavations of sealing and whaling sites in Australia, South Africa, New Zealand and sub-Antarctic islands were obtained. The majority of reports are in a cultural resource management (CRM) format, with some exceptions. The literature provides comparative information on site types, research aims, methods, archaeological signatures and other aspects pertinent to the identification and interpretation of sealing and whaling sites in the Southern Ocean region. Information on the prehistory of the Esperance/Archipelago of the Recherche area was gathered, and theoretical aspects on site formation processes, landscapes, predictive modelling and site interpretation were also reviewed (see Chapter 2). Other known loci for sealing and whaling activities in Australasia were studied and compared with sites in the Archipelago of the Recherche to gain an understanding of the research themes, material culture and archaeological signatures of sealing and whaling activity sites.

Archaeological data
Archaeological data for sealing, whaling and human use of the Archipelago of the Recherche was sourced from:

1. Peer-reviewed papers, academic theses and monographs identified through on-line keyword searches of library catalogues (University of Western Australia, State Library of Western Australia, National Library of Australia) and digital libraries (e.g. JSTOR). Archaeological journals such as the Bulletin of the Australasian Institute for Maritime Archaeology, Australasian Historical Archaeology and Australian Archaeology contained a number of useful studies. References and indexes to sources were consulted to identify sources of further information, and these were obtained as necessary;
2. Cultural resource management (CRM) reports, unpublished ‘grey literature’ and non-digitised reports obtained through direct contact with individuals and heritage management agencies;
3. Reports of past archaeological fieldwork investigating shipwrecks and historic sites in the study area;
4. Archaeological collections from Aboriginal sites—the Western Australian Museum’s Department of Anthropology curates Aboriginal Australian artefacts collected from islands in the Archipelago of the Recherche and Esperance area;
5. Archaeological collections from historic and maritime archaeological sites—the Western Australian Museum’s Department of Maritime Archaeology curates archaeological material from Belinda (1824), Boxer Island sealer’s cave and Middle Island historic site; and
6. Fieldwork undertaken between 2008 and 2013 to identify and record archaeological sites relating to sealing and whaling in the study area, in collaboration with the Gabbie Kylie Foundation (National Trust of Western Australia), Applied Archaeology Australia and Earth Imprints Consulting.

Archaeological fieldwork and artefact collections

A summary of archaeological surveys and excavations relating to sealing and whaling in the Archipelago of the Recherche, and location of their associated material culture collections is provided in Table 1.

Table 1 Summary of archaeological surveys and excavations relating to historical activities in the Recherche Archipelago

<table>
<thead>
<tr>
<th>Date</th>
<th>Fieldwork</th>
<th>Reference</th>
<th>Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>Middle, Gulch and Stanley Island surveys and surface collections, prehistoric and historic material (WA Museum)</td>
<td>Dortch and Morse 1983</td>
<td>Dept of Anthropology, WA Museum</td>
</tr>
<tr>
<td>1987</td>
<td>WA shore whaling stations survey (National Trust of WA)</td>
<td>McIlroy 1987</td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td>South coast whaling survey,</td>
<td>Henderson</td>
<td>Dept of</td>
</tr>
<tr>
<td>Year</td>
<td>Description</td>
<td>Researcher(s)</td>
<td>Department</td>
</tr>
<tr>
<td>------</td>
<td>-----------------------------------------------------------------------------</td>
<td>---------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>1993</td>
<td>Belinda site finding and excavation (WA Museum)</td>
<td>Smith 1993</td>
<td>Dept of Anthropology, WA Museum</td>
</tr>
<tr>
<td>1994</td>
<td>Prehistory of Esperance, surveys and excavations</td>
<td>Gibbs 1994</td>
<td>Dept of Anthropology, WA Museum</td>
</tr>
<tr>
<td>1994</td>
<td>Cape Arid and Middle Island shore whaling station surveys</td>
<td>Henderson 1995</td>
<td>Dept of Maritime Archaeology, WA Museum</td>
</tr>
<tr>
<td>2001</td>
<td>WA Museum Middle Island site inspections (WA Museum)</td>
<td>Green et al. 2001</td>
<td></td>
</tr>
<tr>
<td>April 2006</td>
<td>Survey and excavation of Middle Island historic site, survey of Boxer Island cave (UWA and WA Museum)</td>
<td>Paterson and Souter 2006, Marrell 2009</td>
<td>Dept of Maritime Archaeology, WA Museum</td>
</tr>
<tr>
<td>2009</td>
<td>STS Leeuwin islands survey (Gabbie Kylie Foundation/ NTWA, WA Museum)</td>
<td>Guilfoyle, Reynolds, Mitchell, Morgan</td>
<td></td>
</tr>
<tr>
<td>February 2011</td>
<td>Surveys of maritime sites Cape Le Grand, Cape Arid and Goose Island, Gabbie Kylie Foundation/ NTWA, WA Museum</td>
<td>Anderson 2011</td>
<td></td>
</tr>
<tr>
<td>February 2012</td>
<td>Survey of maritime sites Thomas River, Middle Island, Cape Arid, excavation of tool cache Middle Island, Gabbie Kylie Foundation/ NTWA, WA Museum</td>
<td>Anderson 2012</td>
<td>Dept of Maritime Archaeology, WA Museum</td>
</tr>
<tr>
<td>November 2012</td>
<td>Survey of historic pastoral stations at Cape Arid (Gabtoobitch, Hill Springs), Israelite Bay, Point Malcolm, Tooklejenna, Gabbie Kylie Foundation/ NTWA, Earth Imprints</td>
<td>Anderson 2012</td>
<td></td>
</tr>
<tr>
<td>February 2013</td>
<td>Survey of maritime sites Daw Island, Hawes Island, Barrier Anchorage, Middle Island (Gabbie Kylie Foundation/ NTWA, WA Museum)</td>
<td>Anderson 2013</td>
<td>Dept of Maritime Archaeology, WA Museum</td>
</tr>
</tbody>
</table>
Permission and permits

The area under investigation lies within the Nuytsland Nature Reserve and Archipelago of the Recherche Nature Reserve. Both are Class A Reserves managed by the Department of Parks and Wildlife (DPaW) (previously the Department of Environment and Conservation (DEC)) and require permits to carry out scientific research that involves access to islands, disturbance or removal of samples. The material collected during the 2006 expedition had a permit from DEC for the collection of archaeological samples from historical sites (Permit CE001265) and a permit from DIA to collect archaeological samples (Section 16 Permit, March 2006, Permit No. 408). All recording of Aboriginal and historic archaeological sites on islands and the mainland was undertaken with the involvement and support of Traditional Owners through the Gabbie Kylie Foundation/ National Trust of Western Australia.

Survey team

All fieldwork undertaken for this study was carried out as part of Gabbie Kylie Foundation activities. The Gabbie Kylie Foundation is a Traditional Owner led body set up under the auspices of the National Trust (Western Australia) to conserve and interpret the Indigenous heritage values of the south coast of Western Australia (Mitchell et al. 2013). A survey team consisted of between two and three qualified, experienced archaeologists with extensive experience identifying lithics, between one and eight Traditional Owners, one historical archaeologist and between two and four cultural heritage management field school participants from Australia and/or overseas. Fieldwork included Indigenous, historical and maritime cultural heritage surveys as well as natural heritage surveys of flora and fauna with relevant experts. The author was responsible for planning, managing and conducting maritime heritage surveys.

Survey locations and methods

Islands visited to undertake fieldwork for this study were Middle Island, Goose Island, Ben Island, Hawes Island, Boxer Island and Daw Island. Mainland locations visited were Israelite Bay, Point Malcolm, Boyatup rock shelter, Cape Le Grand, Thistle Cove, Lucky Bay, Tagon Bay, Rossiter Bay, Thomas Fishery, Cape Arid, Sealers Creek, Lynburn/ Moonginettee Station, Thomas River and Barrier
Anchorage. Locations that were dived for the purposes of this study were the Belinda (1824) and SS Penguin (1920) shipwrecks on Middle Island, and at Thistle Cove to search for the wreck of Mountaineer (1835). The primary survey method on islands and the mainland were pedestrian visual surveys along transects with observers generally spaced between five and ten metres apart depending on visibility. Depending on the location, visibility could range from nil in impenetrable bush to 100% on sand beaches, foredunes and granite rock surfaces. Standard archaeological tools and methods were used to survey and record terrestrial sites including GPS, site plans, photography, iPads, recording forms and field notes. Standard methods for underwater surveys included underwater photography and manual tape measurements. Metal detection was used as a tool to identify the location of buried or partially buried ferrous and non-ferrous metal objects.

Positions of Aboriginal and historic artefacts were recorded using GPS and entered into an Excel database either by transcribing paper forms or entering data directly into an Excel spreadsheet on an iPad. As the Gabbie Kylie Foundation was managing the data and reporting requirements for Aboriginal sites and artefacts, this data was recorded on their Geographic Information System (GIS) with selected datasets for specific areas obtained with permission.

The specific survey and artefact analyses methods used in the Middle Island terrestrial excavations and Belinda underwater archaeological excavations are described in Chapters 7 and 8 respectively.

**GIS Mapping**

A Geographical Information System (GIS) is a computer-based method of arranging and presenting layers of spatial data with attributes (Conolly and Lake 2006: 11-14).

All archaeological sites surveyed in the course of this research had their GPS positions tabulated and entered into the Department of Maritime Archaeology’s GIS using the Arcmap GIS program. The datum and coordinate system employed are Geocentric Datum of Australia 1994 (GDA94) and decimal degrees of latitude and longitude (dd.ddddd) respectively.

Archaeological data were arranged into thematic layers of ‘Aboriginal sites’, Historical sites’, ‘Underwater Cultural Heritage (UCH) sites’ and ‘Whaling
Lookouts’. Other data layers were added including high resolution aerial photography obtained from Landgate, marine bathymetry, coastline, topography, waterways and shipwrecks to produce digital maps to illustrate the locations of, and spatial relationships between sites and artefacts.

**Synthesis of historical and archaeological information**

Due to the diverse range of sites and artefacts being analysed with differing specific research questions, final analyses are undertaken manually in order to attempt to associate archaeological sites with corresponding, historically known activities. The historical and archaeological evidence is presented in individual chapters according to both the overarching and site-specific research questions, followed by a final discussion in Chapter 11 to synthesise the overall findings and conclusions.
Chapter 5 Thematic historical study into sealing, whaling and informal maritime society on the Southern Ocean frontier

Introduction

This chapter provides the global and local context for the development of 19th and early 20th-century sealing and whaling industries in Western Australia. It uses the thematic historical research method outlined in Chapter 4 to investigate a range of primary and secondary sources to address the research questions relating to the nature of maritime society and cross-cultural contact, the extent and phases of activity such as foreign and colonial sealing, the different types of whaling (pelagic, bay and shore whaling), the role of sealers and whalers in the exploration of the Southern Ocean frontier, the involvement of Aboriginal men, women and children in the sealing and whaling industries, the diverse ethnicities of sealing gangs and whaling crews, and the various methods and technologies of sealing and whaling employed in the Archipelago of the Recherche.

Aboriginal sealing and whaling

There is historical and archaeological evidence from other parts of Australia that Aboriginal people hunted seals prior to contact by Europeans (Ling 2002: 117, 124-125; Bryden et al. 1999: 430-437).

Aboriginal people along the Western Australian coast both revered and exploited seals and whales for ritual use and consumption. Aboriginal men from the Murray River/ Mandurah area south of Perth had told Mr Ledgard, an early settler in the Rockingham area, ‘…that they spear and eat a great many seals…’ (PGWAJ 15/2/1834), while the same journal reported in 1836 that:

SEALS AND WHALES ON THE COAST.

Mr Armstrong, Interpreter to the Natives has sent us the following communication, which may be deserving the notice of our friends prepared to enter into a sealing speculation: The natives state, that about three or four days' journey to the northward there are seals in great number, and that the natives of
that quarter (several of whom have been up to the Swan River) swim off to an island, which is, by their account, near the main; kill the young seal, secure them round their waists by fastening them in their girth and thus return to the main land. A shoal runs out a considerable distance from the beach, which enables them to reach the island with little exertion. Yulgarin is the name of the place where about the seals are; they are called Muggoorang; from which arose the native name Muggoorang for pig, and Wondabree, a boat, from Wonda, or Wondabrie, a shield. A few days further on bring them to a good sized river, running into the sea. (PGWAJ 13/8/1836)

This could be a description of either present day Wedge Island 90km north of Perth, or Lancelin Island, 170 km north of Perth.

There is no ethnographic evidence for Nyoolgar people in Western Australia’s southwest and south coast using watercraft, that might have been used to access and exploit seal colonies on offshore islands (Dortch and Morse 1984: 38; PGWAJ 5/11/1836: 793). However, they opportunistically hunted seals that came ashore on the mainland.

Captain Matthew Flinders recorded on 11 January 1802 that while in the Archipelago of the Recherche the crew caught a large shark with stomach contents that included ‘…a tolerably large seal, bitten in two, and swallowed with half of the spear sticking in it with which it had probably been killed by the natives’ (Flinders 1814). During Captain Phillip Parker King’s 1821 visit to King George Sound in the Bathurst, King and botanist Allan Cunningham observed a group of Aboriginal people spear and kill a small seal and throw it on a fire, eating it while it was still partly alive. They also observed the Aboriginal people adding seal oil to their hair and body ochre (Shellam 2009: 8, 45).

Coastal Aboriginal groups feasted opportunistically on whales that were stranded or washed up on the shore, and the abundance of food was a catalyst for feasting and social visits between tribal groups (Wolfe 2003: 19-21; PGWAJ 6/11/1836: 579). Armstrong also recorded how whale strandings provided opportunities for Indigenous culture contact between groups: ‘A whole tribe does not, as a custom, migrate beyond its own district; but sometimes a whole tribe pays a visit of a few
weeks to a neighbouring tribe, but this is always on a previous invitation, which is sometimes sent to its neighbours by a tribe that has had extraordinary good luck in hunting, or has had a whale cast on its coast’ (PGWAJ 5/11/1836: 793).

Nyoongar people in the Cape Leeuwin to Bunbury area, and Mirning people on South Australia’s west coast recognised whales as totem animals, recognising a deep spiritual connection that extended back to their Dreaming ancestors (Wolfe 2003: 21; Burgoyne 2000: ix). A smoothed disc manufactured from a whale’s vertebral ephiphysis found near Kalgoorlie is thought to be evidence of the long-distance exchange of a marine object, most likely between south-west Aboriginal groups. It is unclear whether the object was used as a utilitarian dish, or had some other mythological or ceremonial significance (Dortch 1988: 145-149).

**The economics of the global fur and sealing trade**

Sealing and whaling in Australasia was driven by the northern European, Chinese and American economies. The commercial resources derived from seals and sea lions were their fur pelts, skins, whalebone (baleen) and oil. Then, as now—albeit with modern condemnation of cruelty to animals—fur was seen as a luxury item. Furs were prized by the Chinese elite for lining the coats and collars of their ‘Peking wraps’, while European furriers and hatters manufactured furs into luxury items such as fashionable clothing and hats (Richards 2010: 3; Jones 1991: 627). Cheaper hair seal skins were used for their leather and put to various uses including covering luggage trunks and shoes, while seal oil was graded according to quality, and used in the same way as whale oil for industrial lubrication, soap making, street lighting and indoor lamp lighting, depending on the grade obtained.

In 1795 London trunk maker Thomas Chapman discovered a process whereby the coarser guard hairs found on fur seal pelts could be separated from the soft underfur, making them a cheaper alternative to the use of beaver fur in the manufacture of hats. Chapman did not have the means to patent his process and went broke, despite support from Joseph Banks for his claims to compensation (Jones 1991: 627-630). However, the success of others who capitalised on his method led to an intense period of secretive maritime exploration encompassing the entire expanse of the Southern Ocean, and global fur seal populations being decimated to an estimated 10% of their pre-exploitation population (Ling 2002: 124).
Between 1780 and 1803 London was the main market for fur seal skins obtained in Australian, New Zealand and sub-Antarctic waters. The Honorable East India Company (EIC) would re-export the skins to Canton, China to trade for lucrative return cargoes of silks, spices, tea and chinaware (Richards 2010: 9). After the discovery of Chapman’s fur seal processing method, the EIC reduced their involvement in the Chinese market to focus on the European market, allowing American sealers and merchants to increase their share of the China fur trade (Richards 2010: 10). Observing the Bass Strait sealing industry in full swing in 1802, French explorer and naturalist Francois Péron described the economic and political importance of British sealing activities in the Southern Ocean as follows:

This commerce [with China], which has successively passed from the Portuguese to the Dutch and from them to the English, has undergone, especially just recently, such a prodigious development and is being exploited in such a special way that it is becoming more and more impossible to calculate the final results on the political situation of Europe…Now these skins, thousands of which can be so easily obtained in a few days, sell in China at 2½ to 3 piastres, that is to say 12 to 16 francs each and the cargoes fetch certain and quick returns. The Chinese pay the amount in cash, which is used in acquiring merchandise in return. By this type of exchange, which is daily becoming greater, England has succeeded, at any rate, in greatly diminishing to its own benefit, the proportion of specie that it was forced to leave annually in China. In this relationship New Holland has become of the greatest importance to her and her act of taking possession of the whole Southern Ocean, which at first appeared illusory, is, in fact, a political masterpiece. (Péron in Micco (1971: 37)

In 1791 American traders entered into the English and Dutch-dominated Canton market selling sea otter furs obtained in the northwest of America, and from seals in the Southern Ocean. It is estimated some seven million southern fur seal skins collected by American and British sealers were sold in the London and Canton markets between 1790 and 1833. Included in this figure are an estimated 188,850 skins sold on the Canton market via the ‘country trade’ – skins from Australia and New Zealand waters that under EIC monopoly laws were not permitted to be traded
directly from Sydney to Canton, but had to be re-exported via India (Richards 2010: 11).

One of the drivers for establishing a British colony in New South Wales was its proximity to the Chinese and Japanese markets. Following establishment of the penal colony of New South Wales in 1788, British and American mercantile interests were immediately attracted to the new possibilities for trade by this new access into the Pacific Ocean (Churchward 1949: 59; Little 1969: 110; King 1997: 1-29). The colonial government understood the importance of trade to secure the colony’s fortunes, and encouraged shipbuilding and merchants exporting cargoes including whale oil from the South Seas, flax from New Zealand and sandalwood from Fiji. However, it was seal skins that became the elusive sought ‘staple export’ that was to transform Sydney from a colonial outpost to the major port and mercantile centre in the South Seas (Ross 1987: 11). The sealing industry generated significant employment and income, with sales of Australasian seal furs up to 1830 calculated as being worth at least $100 million in modern terms (Ling 1999: 323). Sydney was the centre of the colonial sealing industry, and Sydney-based sealers made many new maritime discoveries in Bass Strait, New Holland, New Zealand and the Southern Ocean.

The late 18th to early 19th-century sealing trade can be divided into three distinct economic phases:

1789-1809: The discovery that Chinese would pay phenomenal prices for seal and sea otter furs led to a global race of maritime exploration literally ‘to the ends of the earth’ by European and American mariners to the Arctic and Antarctic to find new island bounties. Seals were slaughtered by the hundreds of thousands, many populations never recovering;

1810-1820: A glut of skins on the Canton market reduced prices while the London market suffered financial collapse and decline through the Napoleonic wars. In 1807 the Chinese market was flooded with over three million skins collected by American sealers from Masafuera and other South American sealing grounds. In 1808 a similar glut of furs on the London market during a financial crisis, and the subsequent imposition of a crippling £20 per ton duty on colonial seal and whale oil imports severely impacted the colonial sealing
and whaling trade. As a consequence of these events, by 1810 nearly all of Sydney’s sealing merchants were bankrupted (Richards 2010: 166, 191, 201). There was some limited sealing activity, but during this ‘quiet period’ some seal populations managed to recover. In the following decade the Sydney sealing industry collapsed, though the few remaining merchants were sustained by the discovery of large seal and sea elephant colonies on Macquarie Island in the sub-Antarctic, and the associated development of the lucrative sea elephant oil trade. Seal oil fetched similar prices to whale oil, and even after fur prices dropped seal oil maintained its value. In 1820 the prohibitive duty on colonial oil was removed;

1822-1830: Renewed demand and high prices for seal skins in the London market saw an increase in sealing activity, with some new grounds discovered (notably the South Shetland Islands in the Antarctic) and many old grounds revisited. (Richards 2010: 173-174, 208, 244)

Any hopes for a revival in industry fortunes were not founded on an understanding of sustainable resource management however, and this was soon reflected in dwindling cargo tallies. In 1824 thirteen sealing vessels set out from Port Jackson for a renewed assault on the New Zealand sealing grounds. Fourteen sealing expeditions departed in 1825, while in 1827 seven vessels harvested 19,040 New Zealand fur seal skins—an average of 2,720 skins per voyage (Richards 2010: 238). After June 1827 there are no records of any vessels arriving in Sydney with cargoes of over 1,000 skins. In 1830 just five vessels embarked on sealing voyages, with only three to four vessels recorded as sealing between 1831 and 1835 (Richards 2010: 238).

A sad example of the devastation wrought is from Macquarie Island, where 100,000 seal skins were harvested annually during the early bonanza years. In the 1814 season a total of just 6000 skins were obtained, while in 1821 it was reported that just four seals were caught (SG 15/4/1815; Richards 2010: 242).

From this point colonial sealing became the preserve of resident sealers and Aboriginal women who lived on remote coasts and islands beyond the bounds of conventional society, and who relied on a variety of other subsistence and seasonal activities for their survival. From the early 1830s there were a number of sealers living in informal settlements along the Southern Ocean maritime frontier, notably in
Bass Strait, Westernport, Kangaroo Island and King George Sound. The Archipelago of the Recherche was described as ‘the great rendezvous of the sealers…where they chiefly subsisted on wild geese and seal’s flesh, and occasionally made a run to King George’s Sound to purchase flour and other necessities, and sell their seal skins’ (PGWAJ 8/10/1842: 3).

Sealers were also involved in seasonal industries such as ‘tonguing’ to obtain extra income, where they towed the flensed whale carcasses ashore that were discarded by the American and French bay whalers, to try out the few barrels of oil contained in the whales’ tongues (PGWAJ 21/7/1838: 11; Dickson 2006: 61).

As late as 1886 one Kangaroo Island-based ‘Old Sealer’ criticised proposed amendments to the South Australian Game Act to protect seals as potentially ‘depriving me and many others of a living...I have a large family depending chiefly on sealing for a livelihood’ (SAA 9/7/1886: 3).

**Sealing and whaling discoveries in Australasia and the Southern Ocean 1788–1853**

When the whole interior of Australia was as little known as the other side of the moon, the remote subantarctic islands, set in one of the stormiest seas on the globe, were better known and far more frequented than they are today. (Dunbabin 1925: 1)

The following section illustrates the intensity of informal exploration of the Southern Ocean region by sealers and whalers during the late 18th and 19th centuries, during which time all of the remotest sub-Antarctic islands and Australasian mainland coasts were closely investigated (Figure 30). Sealers from Port Jackson, New South Wales visited Dusky Sound, New Zealand in 1792, following Captain Cook’s reports of numbers of fur seals and good anchorages there. Extensive sealing occurred on New Zealand’s southern coasts between 1803 and 1809, while whalers visited northern New Zealand to replenish with water, provisions and firewood as early as 1805 (Richards 2010: 173).
The first known commercial sealing in Australian waters occurred in 1798, when Captain Bishop in the sealer *Nautilus* accompanied George Bass and Matthew Flinders on their exploration of northern Bass Strait in the *Norfolk*. Their expedition was motivated by reports from survivors of the *Sydney Cove*, shipwrecked on Preservation Island in the Furneaux Group in 1797, of signs of the existence of an ocean strait between New South Wales and Van Diemen’s Land. After departing Sydney and reaching the entrance to eastern Bass Strait they found numerous islands crowded with seal colonies. Bishop immediately commenced sealing at Kent Bay on Cape Barren Island, while Bass and Flinders explored further to confirm the discovery of ‘Bass’s Strait’. In 1799 William Reid in the sealer *Martha* discovered King Island at the western entrance of Bass Strait with its valuable rookeries of seals and herds of sea elephants (Richards 2010: 176; Townrow 1997: 7).
These important Bass Strait discoveries led to the rapid growth of a colonial sealing industry and five seasons of intensive sealing that lasted until 1803, by which time the Bass Strait seal and sea elephant colonies were decimated. International interest in the riches being produced in Southern Ocean waters claimed as British territory led to commercial rivalry, conflict between American and colonial sealers in Bass Strait, and official concerns about the activities of American and French sealers (CSO correspondence 20/9/1802 Reel 6041, 4/1719 pp.129-30; CSO correspondence 20/12/1804 Reel 6040, ML Safe 1/51 p.217).

Sealers were often the first to explore remote, uncharted islands and coastlines in the Southern Ocean, while secretly withholding information about their destinations and activities from authorities and rival merchants (Ross 1987: vii). ‘Bass’s Strait’, the ‘Sealing Grounds’ or the ‘Sealing Islands’ were terms generally applied to any islands on the Southern Ocean maritime frontier between Bass Strait and King George Sound, including Kangaroo Island, Spencer Gulf, the Great Australian Bight and the Archipelago of the Recherche (Parsons 1981: 1). Another reason for secrecy was Governor King’s law that forbade them working beyond the limits of Australian territorial waters, later extended to include waters east of New Zealand. Merchants were unwilling to openly flout the law, though in 1808 a number of sealing vessels surreptitiously undertook voyages to southern New Zealand and the Antipodes Islands with the sympathetic connivance of Lieutenant Governor Foveaux who did not inform Governor King of their vessels’ movements (Whitaker 2004: 55).

The modus operandi of ship-based sealing expeditions was to find new sealing grounds, to kill and harvest as many as possible including immature juveniles and pups until their cargo hold was filled or the activity became uneconomic, then to sail off and discover new ‘bonanzas’. Once the Bass Strait seal resource was exhausted Port Jackson sealers redirected their attention to New Zealand, where Britannia’s gang of sealers had landed at Dusky Sound in 1792 but had seen little activity since, and ‘the coasts of all three main islands of New Zealand were examined very closely by sealers before 1810’ (Richards 2010: 188). In the seven seasons between 1803 and 1809 Sydney sealers decimated the southern New Zealand fur seal rookeries as comprehensively as they had those in Bass Strait (Richards 2010: 190).

Historian Thomas Dunbabin wrote that after 1798:
...within a few years the sealers had visited every rock and island in the [Bass] straits, established settlements at several points, and extended their operations along the southern coast of Australia to Kangaroo Island and beyond, as well as to New Zealand and the southern islands. An official list, dated March 1 1804, shows eleven sloops and schooners ranging from 11 to 38 tons, as trading regularly from Sydney to Bass Straits, and about the same time Governor King reported that there were over 200 men engaged in sealing. (Argus 4/9/1918 p.20)

During these fur and blubber ‘rushes’ sealing and whaling ship masters discovered all of the remote islands in the sub-Antarctic regions of the Southern Ocean, and many new seal bonanzas. In 1804 Captain Pendleton in Fanning and Co.’s sealer Union independently re-discovered the Antipodes Islands (first sighted in 1800 by Captain Waterhouse in HMS Reliance); in 1806 Captain Abraham Bristow of the Enderby whaling ship Ocean discovered the Auckland Islands and Captain Frederick Hasselburgh in command of Robert Campbell’s colonial brig Perseverance discovered Campbell and Macquarie Islands in 1810. Between December 1815 and January 1816 the first circumnavigation of Van Diemen’s Land was undertaken by whaler James Kelly in a five-oared whaleboat owned by James Gordon with a crew of five, finding Port Macquarie, Port Davey and the Gordon River (Nicholson 1983: 39). In 1833 London merchant Daniel Bennett’s captain Peter Kemp in the Magnet discovered Heard Island and Kemp Land in the Antarctic while on a sealing voyage (Nicholson 1983: 220). In 1823 Captain Powell of the Enderby whaler Rambler discovered the South Orkney Islands and Captain John Biscoe voyaged to Antarctica in the sealing schooner Tula discovering and naming Enderby Land, Adelaide Island and Graham Island (Richards 2010: 161, 165, 227; Jones 1981a: 27; Jones 1981b: 95; Nicholson 1983: 184).

Annual imports of seal skins and seal oil into London varied depending on the size of the latest discoveries and how rapidly they were depleted. Other significant fur seal and sea elephant grounds were discovered at South Georgia, Desolation Island, the Bounty Islands, Antipodes Islands, Walvis Bay (South Africa), the Crozet Islands, Prince Edward Island, Marion Island, the Chatham Islands, Auckland Island, Patagonia, and New South Shetland Island (Jones 1991: 627; Richards 2010: 233-234, 241).
Any new reports of islands sighted in high latitudes by explorers or merchant ships’ captains were very soon afterwards closely investigated by sealers, with most islands’ geographic features named following more detailed, sealing-based exploration of their coasts by gangs (Figure 31). For example in 1853, Captain Heard commanding the British merchant barque Oriental discovered and named Heard Island in 53°S. Sealers arrived in 1856 exploring and naming Corinthian Bay, Roger’s Head, Mechanics Bay, Atlas Cove and Long’s Beach in the course of that sealing season (Richards 2010: 145-147).

![Figure 31. Illustration of sealers’ encampment at Byers Island, Southern Ocean in the 1820s (Fanning 1833).](image)

Some sealers spent fruitless months searching in latitudes up to 75° south for non-existent islands based on scraps of information and reports of possible sightings. When hearing of the newly reported discovery of the ‘Nimrod Islands’ south-east of New Zealand in 1828, Captain Isaac Percival in the Boston sealer Rob Roy hurriedly fitted out for a voyage to find them, making four fruitless searches criss-crossing the reported position between April 1829 and March 1830. Sydney-based sealer and merchant William Stewart was bankrupted by the cost of speculative voyages searching for non-existent islands in high latitudes, while his Captain Rook paid a higher price, dying of cold in the extreme conditions (Richards 2010: 144).
This overview shows that sealers were highly active in exploring the entire Southern Ocean while searching for seal rookeries on remote islands and coastlines. In the rush to exploit new sealing grounds and maintain commercial secrecy not all discoveries were well publicised at the time. It is likely that much new information on exploratory sealing voyages remains to be found in sealing vessel logbooks, especially in North American archives.

**Sealing and whaling in Western Australia**

**First visitors**

Sealing and whaling activities occurred in Western Australian waters prior to official British settlement of King George Sound in December 1826. The earliest known whalers to visit the New Holland coast were the American whalers *Asia* and *Alliance* at Sharks Bay in 1792, followed by the British whalers *Kingston* and *Elligood* who visited King George Sound in 1800 (Dickson 2007: 41-47). The shipwrecks of the British whaler *Lively* (ca.1810) at the Rowley Shoals, and sealing brig *Belinda* (1824) at Middle Island in the Archipelago of the Recherche, are the earliest known archaeological sites related to sealing and whaling activities off Western Australia’s coast (Bateson 1972: 66; Henderson 1980: 75).

Captain George Vancouver found and named King George Sound, Princess Royal Harbour and Seal Island in 1790, and claimed the west coast of New Holland for Britain. American sealers following descriptions of large numbers of seals in Vancouver’s narrative are likely to have visited Western Australia’s south coast soon afterwards, though no supporting historical evidence has as yet emerged to confirm this (Wace and Lovett 1973: 5-10; Greenwood 1944: 82). The *Union*’s owner and agent Edmund Fanning has been described as the ‘pathfinder of the Pacific’ for his exploration activities, and early involvement in the Pacific fur trade with China since 1798. Of his directive to Captain Pendleton to sail to New Holland in the *Union* in 1803, Fanning wrote that ‘the celebrated voyages of Vancouver had just been obtained; in these mention was made that seals were numerous on the south-west coast of New Holland’ (Fanning 1833: 315).

When in December 1792 French explorers Bruni d’Entrecasteaux in his ship *Recherche* and de Kermadec in *L’Esperance* were forced to seek shelter from heavy
weather in Esperance Bay, the expedition’s naturalist Mr de Labilladiere reported that ‘many seals basked quietly in the sun, upon the rocks and sandy beaches, and that some allowed themselves to be knocked on the head’ (Rintoul 1964: 4).

In 1802, after hearing of the profits to be made in the China trade a group of Isle de France (Mauritius) merchants took advantage of the Peace of Amiens in the Napoleonic Wars to forge new trading links. They sent the 90-ton L’Entreprise, a French schooner from Bordeaux, on a sealing and trading voyage to New Holland. Under Commander Alexandre Le Corre, with an American Nathaniel Cogswell as supercargo and twelve crew, L’Entreprise left Isle de France ‘bound on a sealing voyage on the coast of New Holland and from thence to China’ (SRONSW CSP correspondence, 20/9/1802, Reel 6041; 4/1719 pp.129-30), but after being damaged by a storm off Cape Leeuwin sailed to Port Jackson for repairs (Duyker 1992; Richards 2010: 81; SRONSW CSP correspondence 20/9/1802, Reel 6041; 4/1719 pp.129-30; SGNSWA). The mention of New Holland as opposed to New South Wales is significant, as the first landfall for a vessel sailing from Mauritius to New Holland is the Western Australian coast. This may be an indication for Mauritian/French sealing in New Holland, which would predate the Union’s arrival in 1803. Upon arrival at Port Jackson with his damaged vessel Captain Le Corre was permitted to trade part of his cargo of spirits to pay for the repairs and continue sealing on the coast, though Governor King advised him that ‘priviledges’ had been given to colonial and British sealers in the Cape Barren Islands and King Island in Bass Strait which would ‘necessarily preclude’ him from sealing in that area (SRONSW CSO correspondence 20/9/1802, Reel 6041; 4/1719 pp.129-30). Sometime in October/ November 1802 L’Entreprise was wrecked off one of the Sisters Islands off the north coast of Flinders Island, Bass Strait with the loss of Captain Le Corre and five crew (Richards 2010: 81; Nicholson 1983: 9).

Pearson states that:

The first sealers in Western Australia were almost certainly Americans. American sealers and those of other nationalities were sealing in the sub-Antarctic islands of the Indian and Atlantic Oceans from the late 18th century... American sealing vessels such as the Boston-based *Fairy* in 1793 and *Otter* in 1796 visited Sydney en-route from the Indian Ocean to the Pacific Northwest
sea otter grounds or the Chinese seal skin markets... The first confirmed report of a sealer in the Southwest was in 1803, when Baudin in Le Geographe met the snow brig Union, Captain Pendleton, out of New York sealing, and subsequently named Two Peoples Bay. (Pearson 1988: 2)

The Union may have visited the Archipelago of the Recherche on its voyage from King George Sound to Kangaroo Island. After discovering seals were not plentiful at Vancouver’s Seal Island, Pendleton examined the coast eastwards of King George Sound:

After surveying this a considerable distance, the Union was overtaken by a heavy gale, and driven to sea before it abated, some degrees to the S.S.E. from the coast. (Fanning 1833: 316)

Arriving at Kangaroo Island in the winter sealing off-season, Pendleton and his crew set about constructing a 40-ton schooner they named Independence, made of local timbers with rigging from the Union’s stores. Under Captain Daniel Wright Independence returned to King George Sound via the Archipelago of the Recherche to deposit a pre-arranged letter on Seal Island for Captain Henry Fanning in the Fanning and Co. brig Catharine, which was to sail for King George Sound the following season (1804-1805). Independence then sailed back to King Island sealing along the way, arriving in Port Jackson in ballast on 30 June 1804 (Fanning 1833: 331-339; Sexton 1990: 18). Pendleton’s letter advised Henry Fanning there was no chance of obtaining a sizeable cargo of fur seal skins on the southern New Holland coast. On reading Pendleton’s letter, Fanning decided to return westwards into the Southern Ocean and attempt to locate the Crozet Islands, which he eventually did. Despite the disappointing lack of seals encountered by both the Union and the Catherine, another Fanning and Co. brig, the Tonquin (290 tons, built 1807) visited King George Sound on a sealing voyage to the South Seas (Gibbs 1990: 87). In 1810 Tonquin was sold to the Northwest Trading Company, when on a voyage to Canada’s northwest in 1811 it was captured by Indians off Vancouver Island and burnt, with all but one crew member killed (Acheson and Delgado 2004: 48). As an example of the activities of a number of other American sealers working in the region during the early 1800s, in 1822 the Boston schooner Philo, Captain Isaac Percival, dropped sealing gangs on St Paul and Amsterdam Islands where they
would remain for a year, provisioned at Isle de France (Mauritius), then visited King George Sound on an exploratory sealing cruise to the Western Australian coast, before returning westwards to the Crozet Islands (Richards 2010: 34).

Between 1826 and the mid-1830s Americans were involved in sealing on Western Australia’s offshore islands ‘particularly around the Archipelago of the Recherche’ (Gibbs 1996: 48), while Greenwood notes the dual function of American sealing and whaling vessels that were also involved in mercantile trade:

…before 1800 thirteen United States vessels had entered Port Jackson (two of them twice), while between 1800 and 1809 as many as thirty-three vessels visited Sydney. Some were whaling and sealing ships whose captains desired to use the port for the purposes of refitting and refreshment, while others were merchant vessels which came in the hope of making a profitable speculation. No hard and fast distinction can be drawn between the two classes since many of the United States vessels engaged in the fishery also brought out merchandise for sale. (Greenwood 1944: 117)

Dunbabin (1950: 52-54) lists 58 American vessels that visited Australian ports between 1792 and 1812. Other American ships would have visited the coast without entering a port, and therefore their visits were not recorded in official shipping arrival and departure lists. Many of these ships were sealers, whalers and traders.

Captain George Grey, explorer of the Western Australian coast and later Governor of South Australia, New Zealand and South African Cape colony, described a pattern of American whalers seeking out any potential trading opportunities along their route across the Southern Ocean to New Holland:

Hence we often see the American whalers with arms, ammunition, and other articles for barter aboard. They whale off Madagascar, and whenever an opportunity offers, carry on a lucrative trade with the natives. From thence their course is directed to St. Paul's and Amsterdam [Islands] and afterwards along the coast of New Holland...Their cargo eventually consists of sperm oil, gum copal and other gums, ebony, tortoise shell, gold-dust, sealskins, shells and curiosities; yet they started on a whaling voyage. (Grey 1841: 280)
Pearl shell (*Pinctada maximus*) recovered from the wreck of the American whaleship *Cervantes* (1844) off Western Australia’s mid-west coast, is a likely indication that its crew landed on the northwest coast of Western Australia during their whaling cruise in the New Holland ground, possibly through exchange with Aboriginal people. Following their wrecking the crew of *Cervantes* reported an abundance of seals in the area to the buyer of the wreck, Mr Wickstead, who apparently took good heed of this news with intentions of setting up a ‘sealing station’ in the area (Henderson 1980: 209). Between June and September 1840 the American whaler *Hamilton* was bay whaling at Goose Island Bay, Middle Island in the Archipelago of the Recherche. The log keeper recorded that they ‘sent 3 boats off cruising, they coming aboard at sunset bringing a number of seal skins’ (*Hamilton* log 1839-1841, 11 June 1840, PMB 687).

The above references describe how American vessels were typically involved in a mix of trading, whaling, sealing and exploration, and touched on the Western Australian coast as they sought out new sealing and whaling grounds, and trading opportunities throughout the Indian and Pacific Oceans. American, British and French sealing and whaling vessels arrived on Western Australia’s south coast with increasing frequency from the early 1800s, often using the safe anchorage of King George Sound to wood and water their vessels. Minang people in the King George Sound area were so used to maritime visitors that by 1820 they had become indifferent to European ship arrivals, and generally behaved hospitably to their crews (Gibbs 2003: 2). It is likely that the situation was similar for the rest of Western Australia’s south coast, which presented numerous opportunities for sealing and whaling discoveries and first contacts between maritime visitors and Aboriginal people.

**Colonial sealing in Western Australia**

The earliest reference so far found alluding to the possibility of colonial sealing in New Holland west of Kangaroo Island is in 1810:

She [Governor Hunter] brings the account that the *Endeavour* of Norfolk [Island] sailed from Kent’s Bay in January last for King’s Island, and from hence to Kangaroo Island, on the West Coast of New Holland, where she fell in with the *Endeavour* of Sydney, which latter arrived with the *Governor*
Hunter on Tuesday last, the master of the Endeavour of Sydney reporting that he left the Norfolk Endeavour at Kangaroo Island with 6 or 700 prime skins, and 50 tons of fine bay salt procured on the Island, and that she was destined to proceed farther on the West Coast for the discovery of new sealing grounds, these already known being over-run with formidable gangs (SGNSWA 7/4/1810: 1).

The ‘Norfolk Endeavour’ (so named as it was built at Norfolk Island) returned to Sydney on 29 April 1810 with 40 tons of salt, kangaroo skins and 1,200 seal skins (Sexton 1990: 19). In April 1825 it was sold in Sydney and renamed Hunter (Nicholson 1983: 104). It was this Hunter whose sealing gangs were abandoned on Middle Island around December 1825, who D’Urville and Lockyer met at King George Sound in March and December 1826 respectively (see below).

Describing the history of sealing on Australia’s south coast, ‘Polygon’ (supposed to be Mr Paul Hasluck) wrote that:

Many of the original sealers on the south coast of Australia came from the penal settlements of Van Diemen’s Land. They crossed Bass Strait, creeping from island to island, in open whaleboats, and coasted westward into the Bight…There were wild scenes on the coast in the dark years from about 1810 to 1835 among the ruffianly picturesque gangs, whose chief resorts were on Kangaroo Island, in the midst of the Archipelago of the Recherche and in the neighbourhood of Doubtful Island Bay. (WA 24/8/1929: 4)

In October 1826 French explorer Captain Dumont D’Urville visited King George Sound in L’Astrolabe, three months prior to Major Edmund Lockyer’s arrival to set up the King George Sound garrison and establish British claims to the area. D’Urville met eight sealers in one whaleboat left by Governor Brisbane, and five sealers with five Aboriginal people (one young man, three young women and a girl aged eight or nine years old taken from the mainland opposite Middle Island) in two whaleboats left by the Hunter. The sealers from Governor Brisbane had been dropped off at Middle Island, and subsequently made their way in their whaleboats to King George Sound where they were camped on Breaksea Island with two Aboriginal women ‘they got either voluntarily or by force’. D’Urville took three men from Governor Brisbane’s crew and four from Hunter’s crew who wished to be
taken to Port Jackson either as seamen or passengers. One of the sealers from Hunter named ‘Hambilton’ assisted the French by piloting *l’Astrolabe* to anchorages used by sealers in Westernport and Jervis Bay, feats of navigation which amazed the Port Jackson colonial authorities on their arrival there (D’Urville in Rosenman 1987: 31-34).

The 30-ton schooner *Governor Brisbane* owned by Kemp and Co. had sailed on a sealing voyage from Hobart on 29 September 1825 under Captain Davidson (*HTG* 1/10/1825; *CTTA* 30/9/1825: 2), ‘having on board 16 able hands, on a sealing voyage to the Islands to the Eastward. She is fitted completely for a ten months’ cruise’ (*CTTA* 30/9/1825: 2). The notion of sailing to the eastwards was designed to mislead, as after sailing westwards and dropping his sealing gang at Middle Island (presumably within a month of leaving Hobart sometime around October 1825) Captain Davidson and two of the crew pirated the schooner and sailed to Batavia. Suspicious Dutch authorities seized the vessel and placed Davidson and his guilty crew in confinement (*HTG* 7/10/1826: 2).

On 26 December 1826 Captain Edmund Lockyer arrived in King George Sound in the government brig *Amity* to establish a British colony in Western Australia. He met the remaining gang members from *Governor Brisbane* and *Hunter*, who were starving and desperate, and Lockyer ordered they be supplied with rations (Lockyer 1826: 16). Much of Lockyer’s time at King George Sound was taken up dealing with the repercussions of actions by sealers against the Minang, and with the sealers themselves. The day after Lockyer’s arrival one of his men Dennis Dineen was collecting water when he was attacked and thrice speared in the leg, apparently in cultural retaliation for four Minang men being marooned on Michaelmas Island, although Lockyer had earlier sent a boat to return these men back to the mainland. Lockyer also spent much time investigating the culprit(s) who shot dead a Minang man on Green Island and attempted to bring them to justice. When the *Amity* was preparing to depart for Sydney Lockyer ordered Lieutenant Festing to call at Middle Island to arrest the person or persons—one of them a runaway convict from Van Diemen’s Land—reported to be living there and take them to Sydney for justice (Lockyer 1826: 18). These episodes caused Lockyer much frustration, writing:
From the lawless manner in which these sealing gangs are ranging about requires some immediate measures to control them. From what I have learnt and witnessed they are a complete set of pirates going from Island to Island along the southern coast of New Holland from Rottnest Island to Bass’s Strait having their chief resort of den at Kangaroo Island making occasional descents on the Main and carry off by force females and no doubt when resisted carry their point by the superior effect of the fire arms with which they are armed, besides which each man has a large knife and a steal [sic] by his side. Being left by vessels on these Islands with sometimes a month or two provisions at most, and do not call again for eight, ten, fourteen months or sometimes longer. From the nauseous food these people make use of, and the miserable life they lead, it is no wonder that they actually become savages. The great sense of villainy where to use the term of one of them, a great number of graves are to be seen and where some desperate characters are many of them runaways from Sydney and Van Diemen’s Land. (Lockyer 1826: 20-21)

Following the establishment of British settlements on the southwest coast of New Holland at Albany (1826), Augusta (1827) and Swan River (1829), the commercial exploitation of marine resources became a topic of interest to early settlers. The sealing and whaling industries were pivotal in developing the fledgling colony of Western Australia by attracting foreign shipping that could trade consumer goods for fresh produce, and export goods such as sealskins, whalebone and whale oil. By this time the main sealing bonanzas were over, and sealing was to become the preserve of resident sealers, local merchants with other interests and the occasional businessman who would fit out a boat to undertake a speculative sealing voyage in local waters.

In seeking new sealing and whaling grounds, crews risked their vessels and lives exploring uncharted waters. Industry conditions were harsh and dangerous, and the men and women involved were often illiterate and lived on the fringes of conventional society. Sealing gangs are known to have included escaped and ex-convicts and deserters from whaling ship crews, and were multi-racial including European, American, Polynesian and Aboriginal crewmembers. Sealers forcibly kidnapped Aboriginal women from Tasmania, South Australia and Western
Australia to become domestic workers, wives and sealing gang members (Clarke 1996: 53-59; Lockyer 1826).

Resident sealers were involved in a variety of subsistence activities including whaling, tonguing, sandalwood collecting, bartering Cape Barren geese, sealskins, seal meat, kangaroo and tammar wallaby skins and meat for goods, smuggling, aiding deserters, collecting whalebone, and using their vessels to supply provisions to bay whaling stations. Entrepreneurial seafarers such as John William Andrews built vessels from local timber and entered into agreements with bay whaling operators such as Thomas Sherratt at Doubtful Island Bay and George Cheyne at Cheyne’s Beach, to assist with whaling operations and trading in provisions and oil (Andrews 1948: 123; Dickson 2007: 61).

Colonial sealing on the south coast was a small-scale industry with individuals, partners and small gangs in whaleboats and cutters visiting the seal colonies along the coast in the summer season. In March 1838 one such partnership was tested when:

George Swift and Solomon Aspinall of Albany returned on the 1st March 1838 from the Eastern Islands [Recherche Archipelago] from a sealing voyage. They brought back more than 200 seal skins and many kegs of salted seal meat. They had sailed on the 8th of October 1837. They appeared in court at Albany over a dispute over shares agreed before sailing. Aspinall later decided that he wanted an extra share for his boat to cover depreciation. (Dickson 2008: 9; SROWA Cons 348, WAS 1686 3/3/1838)

In the course of the American whaler Pacific’s cruise between 1855 and 1859, it fished along the south coast of Western Australia. Crewman William Whitcar recorded that ‘…during our cruise we were continually in sight of some one or more islands of the Recherche Archipelago. These islands are uninhabited and almost barren—the only green appearance being a stunted brushwood. Around these islands the seal is found in great numbers, and small craft resort to them for the purpose of capturing these sea-dogs’ (Whitcar 1864: 129).

The global market for sealskins and furs had largely collapsed by 1850, though slower demand saw intermittent sealing continue in the Archipelago of the
Recherche, and south coast generally, through to the 20th century. Sealing supplemented settlers’ incomes, as part of a variety of seasonal activities on the south coast including whaling, salt collecting and agriculture. Occasionally, sealing activities in the Archipelago were reported as part of newsworthy events, such as when in 1856 Solomon Aspinall with crewmembers Duncan and Harris survived a four month long voyage in Aspinall’s open 26 foot whaleboat. After leaving King George Sound on 9 March on a sealing expedition visiting Cheynes Beach, Doubtful Island Bay, and Middle Island they were blown past their destination of Christmas Island (Daw Island) and the ‘Caterpillars’ in the Eastern Group. With their boat in a crippled condition and unable to beat to windward the men were forced to make for Port Lincoln, arriving there on 17 July (CT 7/8/1856; Emp 7/8/1856: 4). While living on Middle Island in 1889 Thomas Andrews and his brother were visited by a gang of five sealers from Albany, one of whom had been badly bitten on both knees by an angry mother seal (Andrews 1959: 11, 23).

The last documented commercial seal harvesting in the Archipelago of the Recherche occurred in 1920 when ‘The Recherche Syndicate’ hired the fishing smack Kia Ora to conduct a six month seal hunting operation, with the aim of procuring both fur and hair seal skins for sale on the London market (Reg 14/4/1920; SROWA 1920/1993). The government-approved expedition collected a total of 496 fur skins and 333 hair skins (Letter Secretary of Fisheries Department to Acting Comptroller of Stores 26/11/1920 SROWA 1920/1993; Letter Recherche Syndicate to Chief Inspector Fisheries 21/9/1920 SROWA 1920/1993).

In 1947 all islands in the Archipelago of the Recherche were protected as a Flora and Fauna Reserve (SROWA 1903/3124), effectively ending commercial sealing.

The phases of sealing in Western Australia may thus be summarised as:

1801-1810 The earliest sealers: foreign ship-based American and possibly French sealers touching on the western coast of New Holland seeking fur seal skins while on sealing and trading voyages to China via the Indian and Southern Oceans, and Bass Strait;

1810-1822 The Dark Ages: coinciding with a slump in China and London markets sealing continued on a small scale as colonial sealers from New South Wales and
Bass Strait explored southern Australasian coasts seeking new sources of fur seals following the depletion of Bass Strait and New Zealand colonies. Colonial sealers included merchants and resident sealers, the latter including both Aboriginal and non-Aboriginal men and women in small groups and gangs. Currently, there is no confirmed historical or archaeological evidence for visitation by sealers beyond Kangaroo Island to the west coast of New Holland, though it is possible;

1822-1827 Revival of the trade: an increase in seal skin prices in London saw Sydney and Tasmanian-based merchants revisiting old sealing grounds and sending exploratory expeditions to the west coast of New Holland seeking fur seal skins, including the vessels Belinda, Nereus and Liberty in 1824 and 1825;

1826-1850: Early colonial sealing: following settlement of King George Sound the Archipelago of the Recherche becomes part of Albany’s economic frontier. Sealers make seasonal visits to the Archipelago, while individuals, groups and gangs inhabit the islands and mainland coast. Seals and sea lions are targeted for furs, skins, oil and meat;

1850-1901 Late colonial period sealing: sealing appears to be sporadic and undertaken on a seasonal basis by a handful of individuals or small gangs to supplement other activities such as whaling or agriculture. Many of the early sealers settle along the south coast, find more permanent employment or leave the colony;

1901-1920 Decline: seasonal sealing remains the preserve of a few individuals or partnerships, although in 1920 motivated by economic circumstances and a rise in seal skin prices in London, the state government supports an expedition to gather skins during the Great Depression.

The role of sealing and whaling in the exploration of New Holland

The contribution of sealers, whalers, and Aboriginal people to developing European knowledge of Western Australia’s coastal and hinterland resources has been largely overlooked. When shipping was the only means of transport and communication, close exploration of the coast for safe anchorages, navigational hazards and inland waterways was of vital commercial and strategic importance. As well as the valuable harbour of King George Sound, the south coast offered opportunities for coastal shipping to shelter in the lee of islands and protected bays, as well as presenting
numerous risks and navigational hazards. Whalers, sealers, officials and settlers sought out Aboriginal peoples’ intimate knowledge of their land, which was still being explored by Europeans with an eye to commercial and colonisation opportunities (PGWAJ 17/10/1840: 3). Explorers and settlers also sought out sealers’ detailed coastal knowledge to gain knowledge of incompletely charted coastlines and hinterland resources. In this way Aboriginal peoples’ and sealers’ detailed local knowledge of the weather, coast and its hinterland resources contributed significantly to mapping the coast and expansion of the colonial knowledge base, an essential ingredient in processes of colonisation.

Major Lockyer remarked on the extent of sealers’ knowledge of southern Western Australia’s coast and its hinterland when he wrote ‘…from the report of sealing gangs the country around the coast towards Geography [sic] Bay and the Swan River is excellent in its soil’ (WA 22/1/1910: 4). He also noted their finding of a large sheet of water (Peel Inlet) 25 miles south of the Swan River with a river which continued to run eastwards into the country (lower Murray River—navigable in small boats) upon which the sealers reported that Aboriginal people were present in great numbers and appeared ‘extremely hostile’ (Lockyer 1826: 38).

During Captain Collet Barker’s tenure as commander of the King George Sound garrison in 1830, he received intelligence from Minang men such as Mokaré and Maragnan about south coast geography, hinterland resources, rivers and inlets such as Nornalup and Minebidyup that were used by sealers in small boats (Green and Mulvaney, 1992: 300-304). In January 1831 Mokaré passed on economic and shipping intelligence from Wannewar and other Minang men that sealers in small boats were to be found at ‘Palerongup’, nine moons journey east of King George Sound (ibid: 387). Palerongup refers to the Pallinup River and Doubtful Island Bay area (Campbell Taylor and the Cape Arid connection: Part 2—The 1840s [2016]).

Between November 1832 and March 1833 Launceston-based sealer and whaler Captain John Hart undertook a successful sealing voyage ‘landing on about every rock between Bass’s Straits and Doubtful Island Bay’, discovering a dangerous outlying reef off Cape Jaffà in South Australia that was subsequently named Margaret Brock Reef after an 1852 shipwreck of that name. In 1834 Captain J. S. Pollock of the colonial whaling barque Merope reported discovering a dangerous
outlying reef, 14 miles S ¼ W from South East Island in the Archipelago of the
Recherche, subsequently named Pollock’s Reef (*PGWAJ* 5/4/1834: 261). In 1845
Captain Irving in the Hobart whaling schooner *Sister* discovered and named Sister
Island (Rocky Island) off South Australia’s west coast that had gone unnoticed by
Captain Matthew Flinders, prompting the media headline ‘Bay whaling and the
process of maritime discovery’, noting the significant commercial and national
interest in such discoveries (*SAR* 23/7/1845: 2a; Sexton 1990: 109).

At least fifteen months before Captain Charles Sturt’s discovery and naming of Lake
Alexandrina at the mouth of the River Murray in February 1830, sealers had visited
the area. Appreciating the significance of the find as an interior waterway, in January
1829 Captain Forbes of the sealing vessel *Prince of Denmark* had written to the
Colonial Secretary in Sydney, and subsequently to Lieutenant Sleeman at King
George Sound, informing them of the discovery of a large sheet of water, part salt
and part fresh one day’s walk from Encounter Bay in South Australia. A gang of
Forbes’ sealers stationed on Kangaroo Island had reported to Forbes their finding
of the lake while exploring the hinterland, stating that it had friendly natives with a
number of canoes, many kangaroos and fish, and rich soil (*Ch* 27/10/1906: 38).

Sealers named Deep River on Western Australia’s south coast, which was actually
the Frankland River, the name subsequently transferred to the present day Deep
River (*ST* 18/3/1928: 24). The first newcomers to traverse the coastline between
Cape Arid and King George Sound were sealers James Newell and James Manning
between June and August 1835, after being landed on the mainland coast by Middle
Island-based sealer Black Jack Anderson. With the assistance of Aboriginal people
they arrived in Albany in an exhausted state (*PGWAJ* 3/10/1835: 575). In the mid-
1830s the vast Western Australia interior was still unknown to Europeans and hopes
were still held for the possibility of discovering access to an inland sea that would
open up the interior to navigation, settlement and trade. In 1836 Fremantle merchant
George Fletcher Moore expressed his belief that Western Australia may yet prove to
be an island or peninsula with an eastern coastline, based on his conversations with
Aboriginal people, and referring to Newell and Manning’s trek. Moore’s (erroneous)
interpretation of Aboriginal information was that an inland sea or lake called
‘Molyean’ by Aboriginal people formed ‘a strait running from north to south,
insulating a large portion of Western Australia (*PGWAJ* 25/6/1836: 717).
By the late 1840s interest in the exploitation of other natural resources on the south coast was stimulated by reports of coal and sandalwood. The discovery of coal east of King George Sound has been attributed to both French whalers, and two Aboriginal wives of sealers (SAR 14/3/1849; PGWAJ 4/12/1847: 2). In 1847 the master of the American whaler *Brandt* dragged his whaleboat over a sandbar eighteen miles from Cape Riche and discovered ‘a considerable river’, offering potential to access inland resources of sandalwood (*Inq* 3/11/1847: 3).

In 1840 the possibility of opening an overland stock route from South Australia to Western Australia was raised, referring to sealers’ discoveries in this little known area:

> Late discoveries have thrown much light upon the country intervening between these two points, so that the only portion of this coast which is not tolerably accurately known lies between Point Bell [west coast of South Australia] and Middle Island, a distance of upwards of five hundred and thirty miles, which has only been seen from a vessel in passing, and which the foot of Europeans has never yet trod. The knowledge possessed of the other portions of the intervening coast is derived from Mr. Eyre's Journal, the settlers at King George's Sound, and the sealers who frequent the Southern coast. From the first of these sources, a knowledge is gained of the country lying between Port Lincoln and Point Bell, a distance of about 210 miles. From the second we are made acquainted with the country lying between King George's Sound and Cape Riche, a distance of about 90 miles; and from the third an unconnected and partial knowledge of the country intervening Cape Riche and Middle Island has been gleaned. (*PGWAJ* 17/10/1840: 3)

When between April and June 1841 William Nairne Clarke undertook an expedition to explore the hinterland of Deep River to determine its potential for agro-pastoral settlement, he was furnished with provisions by whaler and merchant Thomas Sherratt and used sealer Solomon Aspinall’s boat and crew (*Inq* 29/9/1841: 3-4).

Many of the islands in the Archipelago of the Recherche were named ‘very appropriately’ by sealers:
One island is called Figure of Eight because of its shape. Dome Island stands out of the water exactly like a church dome...Another of the islands is called Hospital Island, as it was believed by the sealers to be an island to which sick seals resorted because of its many sheltered nooks. Owing to this belief old time sealers never killed seals on Hospital Island. Unfortunately the names of many of these islands have been altered to less interesting designations. The change has also created confusion in the minds of coastal sailors. It was effected by Commander Coombe, who in H.M.S. Penguin partially surveyed the coast some twenty-five years ago. For example, he gave his own name to an island that was familiar to a couple of generations as Monkey Jacket Island, because a South Coast identity named Butty left his monkey jacket there when on a sealing expedition. (WA 21/4/1925: 5)

Mary Ann Harbour west of Esperance was first noticed by sealer and whaler Thomas Sherratt from the land. It was subsequently entered and proven as a fine harbour by Captain James Sale and Mr Butty while on a sealing expedition in November 1865, and named after their vessel Mary Ann (AA 22/6/1897: 3).

The toponymy of other locations in the region such as Seal Island and Sealers Creek are clues to likely past use by sealers.

**Early maritime society**

Sealers are often stereotyped as a homogenous category of outlaws and escaped convicts, who violently captured Aboriginal women to serve as slaves. While early maritime society on the Southern Ocean frontier certainly had elements of violence, hardship and brutality, there is arguably a more nuanced story to be told.

Contemporary descriptions of social arrangements in informal maritime societies on the Southern Ocean frontier mention different ‘classes’ of sealers. When Captain John Hart visited Kangaroo Island, South Australia in November 1831 he described a population of between 16-18 resident sailor’ sealers living in pairs with Aboriginal wives (Bride 1969: 52). He also described ‘another class of men...who probably had escaped from Van Diemen’s Land, these lived generally on islands apart from the others, some on Thistle Island, near Port Lincoln, and other islands in Spencer’s Gulf” (ibid).
Cameron’s (2011) research into social and exchange relationships between ‘Straitsmen’ and Aboriginal clanswomen on northern Tasmania’s colonial sea frontier found that sealers ‘were not a homogenous group of men by character, nature and disposition’. Straitsmen identified themselves as seafarers, largely composed of ex-riverport sealing gangs from Hobart and Port Dalrymple. Straitsmen distanced themselves from colonial authorities, and avoided contact with other sealers comprising escaped convicts and deserters fleeing authority that could bring them trouble.

Aboriginal men, women and children were an integral part of early maritime societies, and are described in further detail below. Detailed recording of individuals in northern Tasmania and the Bass Strait islands by Protector of Aborigines George Augustus Robinson in the 1830s has provided information on Tasmanian Aboriginal women involved with European/newcomer male sealers. His descriptions have formed the basis for much historical and archaeological research in relation to questions around the nature of cross-cultural contact, gender roles, individual agency, labour and slavery (e.g. Russell 2005, 2007, 2012; Matthews 1999; James 2002; Cameron 2011).

**Aboriginal interactions with the colonial sealing and whaling industries**

The Eora people in the Port Jackson (Sydney) area were a coastal maritime society, and were attracted to the sealing and whaling industries at their earliest stages of operation in Australia, voyaging as crewmembers in sealing vessels to sub-Antarctic Macquarie and Heard Islands, New Zealand and Bass Strait (Smith 2010: 9-11). An 1805 report shows that their skills were valued, and were accordingly treated as equal to other crewmembers receiving a ‘lay’ or share of the catch system:

> Several of their youth are at this time employed in the various sealing gangs in the Straits, upon lay, and evince an ardent inclination of contributing every possible exertion to the common advantage. (SG 17/3/1805: 4a)

The long-term involvement of Aboriginal men, women and children from Van Diemen’s Land in the sealing industry has been well documented, and many travelled with sealers to the Victorian, South Australian and Western Australian coasts (Cameron 2011; Lockyer 1826; Plomley 1966; Russell 2012; Taylor 2000; Tindale 1953; C 14/4/1854: 2-3). The interaction between European and Aboriginal
people through what researchers have variously described as a process of ‘hybridisation’ (Tindale 1953), ‘creolisation’ (Russell 2005, 2012: 19) or ‘blending’ (Cameron 2011) resulted in a people of mixed race known as ‘Islanders’ with a distinctive maritime culture, dress and language, who adapted to life on the Bass Strait Islands and travelled throughout the Southern Ocean maritime frontier.

In 1834 a whaleboat previously belonging to the murdered sealer and trader George Meredith was reportedly used by Aboriginal people in Encounter Bay, South Australia for sealing and fishing (Sexton 1990: 25). Also at Encounter Bay, during the 1839 season at least one whaleboat was entirely crewed by Aboriginal men who were described as being as skilful as white men (SA 7/8/1839: 3). Local Aboriginal people assisted whaling operations by the men carting blubber to trypots where the women would boil it to extract the oil. Whale meat was then distributed to the groups by the whalers (Staniforth 2010: 128) indicating an economic and social exchange relationship between Aboriginal people and whalers.

At Twofold Bay in New South Wales during the 1840s the Imlay Brothers employed Aboriginal boat crews in their shore whaling operation, while at the Davidson whaling station Aboriginal boat crews formed an integral part of the workforce, being paid a lay share of the profits (Gojak 1998: 17; Staniforth 2010: 130).

William Nairne Clarke recorded that ‘there is a legend current among the King George’s Sound tribe that long before the settlement was formed by the English, a foreign ship, or “Kilbra” appeared, and from the expressions of abhorrence with which the strange ship is always coupled, it would seem the crew used the natives ill, especially the women. To what nation the ship belonged, or whether it was a sealing vessel, I cannot pretend to say, but the natives pointedly state, “Englishman no!”’ (Inq 16/2/1842: 4). This description could be of a gang of multi-ethnic sealers, possibly even one of the gangs from Governor Brisbane or Hunter that had travelled around the southwest coast at least as far as the Swan River around 1825-26 (Lockyer 1826).

The earliest recorded encounter between sealers and Aboriginal people in Western Australia is when the American sealing brig Catharine arrived in King George Sound in 1804. Minang men willingly assisted the crew to wood and water the vessel. In a unique encounter of its type, Catherine’s Captain Fanning invited two Minang elders aboard to take breakfast with himself and the officers in the captain’s
cabin. The men ate the ‘broiled fish’ prepared for them but one of them did not like the novel taste of brown sugar offered to him, spitting it out onto the dinner table along with his mouthful of fish. When some of the horrified officers motioned to leave the table, Fanning diplomatically advised them to remain so as not to cause any offence (Fanning 1833: 332-335).

During French explorer Captain Dumont D’Urville’s visit to King George Sound in October 1826, his crew encountered two boats with sealing gangs left by the Governor Brisbane from Hobart and the Hunter from Port Jackson. The Governor Brisbane’s gang had been sealing, fishing and hunting on Breaksea Island for seven months, and included two kidnapped Aboriginal women, a Maori William Hook, and ‘Warroba’ (also known as ‘Weymorr’)—John Pigeon. D’Urville described Pigeon as a Port Jackson Aborigine, though he was in fact from the Shoalhaven River region where he was the brother of Maccah, chief of the Killambugong people (Smith 2010: 154). Pigeon was still at King George Sound in December 1826 when Major Edmund Lockyer arrived in the Amity to establish the first colonial settlement in Western Australia, and was subsequently employed by Lockyer to act as a tracker and mediator between Noongar people and the colonists (Smith 2010: 59; Lockyer 1826: 24).

Figure 32. John Warroba Pidgeon in 1833 (J. Glover, Tasmanian Museum and Art Gallery).
Pigeon was described as ‘a boy’ in 1806, and as a youth travelled to sub-Antarctic Macquarie Island along with ‘Potter’ and ‘Jack’. These Aboriginal men formed part of the 30-man crew of the 130-ton brig *Mary and Sally*, that left Port Jackson on 12 April 1811 on a sealing expedition (Smith 2010: 154). After his Western Australian experiences Pigeon worked in sealing gangs in Bass Strait, where George Augustus Robinson met him in 1832. Later in his seafaring and exploring career he worked for pioneer settler John Batman in Van Diemen’s Land, and as an interpreter for Batman during the founding of Port Phillip settlement in 1835 (ibid). In 1835 Batman is recorded to have had ten Sydney Aboriginal men in his employ—two of them were later awarded land grants for their work, most likely for assisting Batman and the government in tracking and dispossessing Tasmanian Aboriginales from their land (Plomley 1966: 472-475). It seems likely that Pigeon remained with Batman in the Port Phillip district until 1841 when ‘an Aboriginal named Pigeon’ drowned during salvage operations on the wreck of the *William Salthouse* (1841) (Staniforth and Vickery 1984: 5). It is possible that Pigeon was involved in the salvage as a free or naked diver, as the wreck of the *William Salthouse* lies in 7-12m depth.

When Albany merchant Thomas Sherratt established the first shore whaling station in Western Australia in 1836 at Doubtful Island Bay, the party included two Aboriginal women and one boy (Gibbs 2003: 3). At least one Aboriginal whaler Jack Hardy travelled from Hobart to Western Australia in a whale ship with Captain John Thomas (WM 10/2/1927: 27). In terms of traditional life Aboriginal people had long feasted opportunistically on whales that were washed up on the shore. As shore whaling activities brought large numbers of whale carcasses ashore after cutting in for their blubber and bone, there were greatly increased opportunities for large groups of Aboriginal people to meet and feast on whale meat, sometimes camping in the proximity of whaling stations for ‘several months’ (Gibbs 2003: 4).

There were interactions between whalers and Aboriginal people on Western Australia’s south coast as whale ship crews, and discarded whale carcasses with ‘whale beef’ came ashore. In 1839 the American whaler *Emerald* was bay whaling at Doubtful Island Bay. Shipkeeper and cooper William Henry Nicholls recorded in the ship’s log that one boat’s crew went for a cruise along the coast where they met a friendly Aboriginal man and three boys they were able to converse with in English. The group was spearing fish on the beach, and Nicholls described ‘their food is
generally whale meat, fish, bugs, worms, snakes etc’ (Dickson 1996: 93). The entry is of interest for the fact the Aboriginal people were friendly and spoke English, indicating the likelihood of regular interactions with Sherratt’s shore whaling party in Doubtful Island Bay.

Some whalers were wary of such encounters, no doubt based on accounts of cannibalism and attacks by Indigenous warriors on Pacific islands. On 27 September 1836 two boat crews from the American ship Huntress cautiously landed on the shores of south-west New Holland in the Cape Leeuwin area as ‘the captain told some of us to keep close to the boats so as to give the alarm if the natives should come down upon them. We knew they were [sic] savage’ (Dickson 1996: 56). When he did eventually encounter Aboriginal people at Port Augusta, the writer recorded ‘the natives...are horibally [sic] afraid of a gun’ (ibid), possibly indicating they had direct experience of firearms being used against them.

At Marbaleerup/ Mount Ridley, 70 kilometres north of Esperance, a significant Aboriginal cultural site complex includes stone arrangements and rock shelters with rock art. The largest shelter contains rock art depictions of a ship and a whale(s) (Gunn 2008: 20; M. Mitchell, 2013, pers. comm.). Such depictions are examples of contact art whereby Aboriginal people graphically communicated their experiences of new phenomena. Another unique example of communicating Aboriginal involvement in whaling activities is ‘Nebinyan’s Song’. Nebinyan was an Aboriginal man who worked seasonally on 19th-century colonial shore whaling stations on Western Australia’s south coast. Using traditional storytelling, dance and song, he described the story of a whale hunt to his audience, complete with a whale effigy made of branches and wooden spear for a harpoon (Gibbs 2003).

By 1850 Aboriginal men made up 30% of the shore whaling industry on Western Australia’s south coast (Gibbs 1995: 91). Many were skilled, long-term workers in the industry, were treated as equals and shared the same ‘lay’ payment scale as whalers of other nationalities. Gibbs (1995: 621-643) lists Jack Hardy, Tommy King, Nebinyan, Bobby Noneran, Rattler Nuterwert and possibly Jack Hansome and Taylor Dickey as Aboriginal crew members working on the east coast/ Cape Arid shore whaling stations during the 1870s. At the end of the whaling season the proceeds of their lays including flour, sugar, tobacco, tomahawks, knives and
blankets were distributed among their friends and family, demonstrating how some Aboriginal men negotiated their way through new industries and power structures to elevate their own social and economic position, and the mix of customary and colonial economies.

**Shipwreck survivors**

In late October 1833 the sealing and trading schooner *Defiance* belonging to Messrs Chapman and Meredith left Sydney on a voyage ‘to the Western coast to purchase skins from the sealing parties there’ (*SM* 20/10/1833: 3a; *SH* 30/9/1833: 2). Shortly afterwards *Defiance* was wrecked just south of Twofold Bay, New South Wales. Two ‘English lads’ on board James Manning and James Newell ended up living and sealing in Bass Strait for four months, then living on Kangaroo Island and Thistle Island in South Australia for about eight months, finally arriving at Middle Island after surviving the wreck of the sealing and trading cutter *Mountaineer* at Thistle Cove, Cape Le Grand on 20 March 1835. The survivors spent ten days camped at Thistle Cove where they met five Aboriginal people, before sailing in a small boat to Middle Island. After living and sealing with John ‘Black Jack’ Anderson on Middle Island for about four months, Manning and Newell requested Anderson take them to King George’s Sound. Anderson refused but agreed to put them ashore on the mainland at Cape Arid without provisions (*PGWAJ* 3/10/1835: 575).

Manning and Newell’s account of their two month long coastal trek from Cape Arid to Cheyne’s Beach with the assistance of Aboriginal groups was recorded on their arrival in Albany by Richard Spencer, Resident Magistrate who wrote to the Colonial Secretary that ‘…they are reduced almost to skeletons, and have nearly lost their voice. I am delighted to add that the moment the natives (The White Cockatoo, Murray and Will men Tribes) fell in with them, that they nursed, fed and almost carried them to Mr John Cheyne’s at Henty, I have requested Mr D.A.C.G. Browne to issue a small portion of Flour to each native, and a duck frock each, to two, who were most active, and kind to them on the Journey, also to issue one weeks rations to the two men, and a duck frock to each of them.’ (Resident Magistrate to Colonial Secretary, 10 August 1835, SROWA CSR Vol 42/173). The *Mountaineer* shipwreck and Manning and Newell’s survivor ordeals culminating in their trek is significant both as an episode of Indigenous shipwreck survivor contact, and as the subsequent
official correspondence and legal records provide most of the available historical information on the maritime history and sealing activities in the Archipelago at this time.

One of Western Australia’s most intriguing early maritime mysteries is an Indigenous account of survivors from the wreck of an unknown ship in the western Great Australian Bight, 250 km east of the Archipelago of the Recherche. The Indigenous oral history was recounted to local dog and rabbit hunter John Carlisle, who provided it to the WA Museum in telegraphic sentence style as follows:

The first white people the natives saw was long before Eyre and Baxter in 1841 how long before 1841 no one knows for sure. as near as one could find out was the lifetime of two men before 1841. and the legend has been handed down. that they saw a Ship way out to sea late in the evening not long before dark. and they were frightened and curious as to what it was. and when daylight came next morning. the ship was further east and closer in and said there was smoke coming from it (the ship may have been on fire) one native old Jordy said he thought the other old natives said it burnt while the other natives said they didn’t know anything about it burning. was not told that it did burn. On going further east to near opposite the Ship out to sea. and about mid afternoon the Ship was even closer in still some smoke coming from it. and they could see in the distance some movement on the Ship. and some big things on top came down (this could have been sails taken down) and they saw the small boat leave the ship, and was coming in, and said everybody run away. some came back about dusk and saw the small boat on the beach two or three walking around some lying down. some natives returned next morning to find one white dead on the beach and another dead just over the back of high water mark. and said they had dug holes in the sand. didn’t know if they were attempting to bury the dead or digging for water. and said some time that day. didn’t know what time. the Ship came in and lay on its side on the beach and they had been shown the exact spot. both where the small boat came in. and where the Ship came in. and according to them the Ship came in about ¼ mile west of where the boat with the people came in and had showed me the both places. they was very sure of these being the exact places although there was nothing there to be seen. they said that was the proper place I tried to point out
to them that there must still be some sign left of a Ship they said proper place allright. must be burn up. or wash away (when they say must they mean “might”) there were five in all that came in. no more either on Ship or boats. so one died on the beach. very skinny they said. second was dead in the morning. a third lived for thought about eight days. and he died. the natives said old fellow spear and kill the fourth. And wanted to kill the fifth one but he having fair hair or blond hair, as they put it was too frightened to kill him as they had never seen a human with light hair. Some said kill him, and others said leave him. So they let him live, and he lived on with the natives they said for a long time. didn’t know for how long or what happened to him. But thought he went with the natives of the adjoining tribe to the east of Eucla. (A.J. Carlisle to WA Museum, 8 March 1976, Eyre Wreck File No. 166/76)

Carlisle subsequently located shipwreck remains at the exact location pointed out to him and reported the site to the WA Museum (Figure 33). The location accords with explorer Edward John Eyre’s report of passing ‘many pieces of wreck upon the beach…none of them, however, appear to have been recently deposited there’ over the course of two or three days in the position 126.5 degrees east (Eyre 1841, 29
March 1841). A maritime archaeological inspection conducted in 1976 identified the remains as belonging to the wreck of a large ship of over 400 tons, most likely an early sealer or whaler (WAM DMA File 16/76). The wreck is possibly related to a verified survivor account of British sailor William Jackman, who was a crewman aboard the British whaler Carib that wrecked in a bay in ‘the Archipelago’ in 1837. Jackman lived for about 18 months with an Aboriginal group before making contact with the Hobart whaler Camilla which landed him at King George Sound on 27 June 1839 (Gibbs 2002).

Aboriginal women and children
Aboriginal women were highly valued by sealers for their diving, foraging and hunting skills, as well as for sexual companionship (Gibbs 1995: 91; Clarke 1996: 56-59, James 2003: 33-52). Aboriginal women in Van Diemen’s Land and Kangaroo Island were bartered in a hybrid exchange economy where Aboriginal groups traded women to sealers in exchange for hunting dogs, flour, potatoes and skinned seals. Recent research has found that the great majority of women ‘were willing participants in this culturally-based barter system, and they became the resource managers and initiators of the small-island mixed economy’ (Cameron 2008: iii). As well as these negotiated exchanges, there are accounts of sealers violently and forcibly kidnapping Aboriginal women during raids into their country, violent treatment and slavery (James 2003; Plomley 1966: 82). Masters of vessels visiting sealing settlements traded captured Tasmanian women with sealers (Clarke 1996: 56). Aboriginal women typically carried out most of the work for sealers such as cooking, fetching wood, salt scraping and bagging, seal hunting and seal skin curing, killing, plucking and salting mutton birds and rowing boats. One woman named Fanny told George Augustus Robinson ‘that she could navigate a schooner and could hand reef and steer’ (Plomley 1966: 82). Another woman travelled to Isle de France (Mauritius) in a French whaler and returned to her country, having learnt to speak French (Plomley 1966: 686). Woretomoetryenner was a Trawlwoolway woman from northeast Tasmania, who in 1825 sailed on a sealing voyage to remote St Paul’s and Amsterdam Island in the Southern Ocean via King George Sound. Unable to land, Woretomoetryenner, a group of Aboriginal women and one sealer were abandoned on Rodrigues Island where they waited eight months before being picked up, finally making it to Port Louis on Reunion Island. One of the women named
Wateripita died in Port Louis as a result of the harsh environmental conditions impacting her health (Walter and Daniels 2008: 38).

Cameron (2011: 121) describes how there were different kinds of Aboriginal clanwomen involved in Van Diemen’s Land/ Bass Strait, namely the tyereelore—the wives of the sealers—and the wanapakalalea—the seasonal workers. The tyereelore lived with sealers on the islands as permanent residents, while the wanapakalalea only stayed on the islands for the summer months involved with sealing and mutton-birding. Through exchange of foods as payment for seasonal labour, this small island economy system replaced the traditional economy, while accommodating traditional needs. The blending of newcomer Islander and traditional mainland clan culture through reciprocal exchanges brought them together, including in cultural events such as feasting and dancing.

In the same way as some sealers raided and kidnapped Aboriginal women from Van Diemen’s Land (Merry 2003: 80-88; Plomley 1966: 82), sealers murdered men and kidnapped women and children from Port Phillip and the mainland of New Holland in the present regions of Encounter Bay, Fleurieu Peninsula and Port Lincoln in South Australia, and King George Sound and Cape Arid on Western Australia’s south coast (CC 9/11/1844: 4; PGWAJ 3/10/1835: 575; Lockyer 1826: 10, 22).

One account of the violent methods some sealers employed in South Australia’s Spencer Gulf to abduct women is likely to be typical of the tactics used in raids elsewhere on the coast:

There was another whale-boat on Long Island, with four men in her, named George Roberts, John Howlett, Harry and William Forbes. In November, on Boston Island, the people in this latter boat caught five native women from the neighbourhood of Port Lincoln; they enticed two of their husbands into the boat, and carried them off to the island, where, in spite of all remonstrance on the part of Manning, they took the native men in Anderson's boat round a point a short distance off, where they shot them, and knocked their brains out with clubs. Manning believes they still have the women in their possession, with the exception of Forbes, whose woman ran away from him shortly after they were taken to the island. Two of the women had infants at their breasts at the time
their husbands were murdered; an old woman was compelled to take them away, and carried them into the bush. *(PGWAJ 3/10/1835: 575)*

Prior to colonisation, the Western Australian coast ‘…was likewise visited, according to the traditions of the natives, by parties in search of the fur seal. They frequently made inroads into the territory of the aborigines, and endeavoured to carry off the women, which infringement on their natural rights roused the natives to fury, and several collisions between the blacks and whites took place. Even now, talking of these marauders, the natives describe them with symptoms of loathing and innate hatred’ *(PGWAJ 8/10/1842: 3)*.

D’Urville described the gang from the *Governor Brisbane* having with them on Breaksea Island ‘two native women they have got either voluntarily or by force’. Five Aboriginal crew in *Hunter*’s gang comprising two young women from the Port Dalrymple region of Van Diemen’s Land, a male and a female both between eighteen and twenty years old ‘from the continent opposite Kangaroo Island’, and ‘a little girl of about eight or nine, who comes from the mainland opposite Middle Island. All these individuals have been living for several years with the Englishmen except for the little girl whom they have only had for about seven months’ (D’Urville in Rosenman 1987: 32, 34).

In reference to this little girl, on 13 January 1827 Major Lockyer arrested sealer Samuel Bailey on suspicion of murdering an Aboriginal man found dead on Green Island in Oyster Harbour. Bailey had living with him on Eclipse Island one young Aboriginal woman from Oyster Harbour and a small girl eight or nine years of age ‘…taken off the mainland opposite Middle Island’, no doubt the same girl D’Urville described earlier that year (Lockyer 1826: 18). The Minang people welcomed the return of the woman from Oyster Harbour by Lockyer, though ‘…the little girl, finding she was a stranger to them, one pointed to Pidgen [sic] and then to the child, meaning he must take care of her’ (Lockyer 1827: 18). The term paedophilia was not used at the time though Lockyer recognised the danger Fanny Bailey (her English name) was in and acted by removing her from Samuel Bailey’s grasp. However, Lockyer made no attempt to repatriate Fanny to her home country on the mainland opposite Middle Island, instead sending her to Sydney in the care of Thomas Hansen, master of the *Amity*. Hansen took Fanny to the Blacktown Native Institute.
for Aboriginal children and orphans in western Sydney, where she became the fifteenth student to be enrolled in the school (Brook and Koen 1991: 211-213). The Blacktown Native Institute is today recognised as the earliest institution in Australia associated with the ‘stolen generations’ for its early practice of removing children from families in the Sydney area, as well as taking in orphans (Lydon 2005: 201-224).

Journalist, lawyer, ship owner and adventurer William Nairne Clark reported on the involvement of Aboriginal men and women sealing and mutton bird egg collecting on islands off Western Australia’s south coast:

> The natives are far more dexterous than Europeans, either in hunting for birds on the Island, or finding their eggs, and a sealing bout has seldom been without some of them, either male or female. *(PGWAJ 24/9/1842)*

Sealing gang leader John ‘Black Jack’ Anderson lived with two ‘native wives’ on Middle Island *(PGWAJ 8/10/1842: 3)*, while his fellow gang member Isaac Winterbourne also lived with an Aboriginal woman.

Robert (Bob) Gamble was a Bass Strait sealer who arrived in Western Australia around 1832, and lived on various islands off the south coast including Bald Island, Breaksea Island, Doubtful Island and Middle Island. Gamble’s Aboriginal wife Eliza Now was a Bunurong woman from Point Nepean area in the Port Phillip district. Gamble came to King George Sound to escape arrest for the shooting murder of two Tasmanian Aboriginal women on King Island (said to be Truganina’s sisters) and settled in Albany with Eliza, later joining Anderson’s gang. Gamble is mentioned in George Augustus Robinson’s journals at Flinders Island in Bass Strait, when Gamble was employed as a pilot by the colonial government to navigate Robinson’s party through Bass Strait. Robinson was unhappy when he found out about Gamble’s history, and Gamble was sent to Hobart to face court (Auburn 2010; Lopresti, T., pers. comm., 22/7/2008; Plomley 1966: 478).

William Nairne Clark described Gamble’s lifestyle:

> Bald Island, about twenty miles to the eastward of the Sound, has been inhabited frequently by them [the sealers] on account of the number of
wallabees [sic] that abound on it. One of the sealers named "Gamble" [sic], or familiarly "Bob Gemble", originally from Van Diemen's Land, used to reside there with his black gins and his children for months together, and for aught that I know he may be either there, or somewhere in the Archipelago, to this day. This man seals on his own account, and his wives perform the part of a boat's crew. (PGW AJ 8/10/1842: 3)

Gamble took Eliza and other sealers to Middle Island, including John Hughes Morgan and his wife Julia Morgan, where they lived until 1840-42 (Lopresti, T., pers. comm., 22/7/2008).

Esperance area Traditional Owner Gail Selby-Yorkshire provided information that she is descended from a Portuguese/ American Indian sealer ‘Brutus’, who operated in the Middle Island/ Esperance area. She said that sealers took Aboriginal women and children from this area, and menfolk and children were killed. Sealers used every part of the coast and ‘they were everywhere’. Camps on the mainland coast in the Esperance area were used by both sealers and Aboriginal people, including a camp at Twilight Cove (G. Selby-Yorkshire, 26 February 2012, pers. comm.).

**Ethnicity of sealers and whalers**

The majority of sealers and whalers in Australia had some prior seagoing experience, whether as fishermen or crew members aboard merchant or naval vessels. Some were free men, escaped convicts, or ex-convicts who joined boat gangs or ships’ crews seeking freedom from authority.

From the 18th century crews aboard English and American ships were ethnically diverse, consisting of a mixture of European, African American/ European/ Caribbean, Polynesian and Indo-Malay (also known as ‘Lascars’, or ‘Indians’) men. In 1819 the Nantucket whaling fleet represented 40% of the American merchant navy with an estimated workforce of 1500 men comprised of 12% American Indians, and between 25% and 37% blacks and black and Indian mulattoes. By the end of the 1850s one man in six aboard American whalers was counted as an African-American (Farr 1983: 162, 166). Tahitian, Marquesan, Rotuman, Hawaiian and Maori men also joined sealing and whaling gangs from Australia visiting New Zealand and sub-Antarctic islands, working as crewmen and resident sealers and whalers in Australia.
(Chappell 1991: 326, 338; Lockyer 1826; Prickett 2008: 362-364). Sam Yebble Isaacs, an Aboriginal stockman who achieved fame for his rescue of passengers from the wreck of the SS Georgette (1878) at Redgate Beach, southwestern Western Australia, was the son of a Wardandie woman and a native American mariner who deserted from an American whaler in the 1830s (The wreck of the Georgette n.d.).

Chamberlain (1988: 79-80) calculated that between 1860 and 1869 33.3% of all officers aboard Hobart whaleships were Melanesian or Polynesian, while between 1870 and 1879 11% of officers were of Azores Islands or Cape Verde origin. While these latter two groups are often described as ‘Portuguese’, they were culturally different, the latter group a distinct creole or mulatto mix of white Portuguese and black Africans (ibid).

The sealers and whalers working on Western Australia’s south coast reflected this ethnic diversity. In 1826 Lockyer named and described the sealers from the Hunter’s and Governor Brisbane’s boats (that he mistakenly identified as ‘Governor Hunter’ and ‘Brisbane’) as follows:

*Governor Hunter [sic]*: William Bundy, boat steerer; Thomas Toolen, seaman; Robert Williams; a black man; Pidgeon, a Sydney black.

*Brisbane [sic]*: George Thomas, boat steerer; John Hobson, seaman; Thomas Tasmein, a black man; William Hook, a New Zealand Maori. (Lockyer 1826)

D’Urville had earlier met ‘eight Englishmen’ from the Governor Brisbane, one of whom looked ‘a completely different type from the English’ and who he learnt was ‘a New Zealander, a native from Kerikeri attached from a very early age to the miserable lot of these vagabonds’ (Rosenman 1987: 32). One of Hunter’s crew was ‘a coloured American named Richard Simons’ who claimed to be from Canada and spoke good French—he joined D’Urville’s crew as a seaman (ibid: 33).

Twelve sealers from the Governor Brisbane and Hunter along with three Aboriginal women lived in the King George Sound area until 22 May 1827 when they departed on the Ann, arriving in Sydney on 13 June (SGNSWA 13/6/1827; Nicholson 1981: 21).
Large numbers of Afro-American soldiers, seamen and emancipated slaves who had fought for, or assisted the British in American War of Independence (1775-1783) were granted refuge in England following Britain’s loss and retreat. Many of them were left destitute and lived and worked mainly around the London docks, until the British Parliament enacted a law providing for their welfare. Some were transported as convicts to Australia for petty thefts committed in London, while others worked aboard British naval and merchant vessels and left or deserted their ships in Sydney or Hobart. They found both employment, and freedom from authority in the sealing and whaling industries exploring the maritime frontiers of the South Seas (Pybus 2006, 2007).

John ‘Black Jack’ Anderson is recorded as having arrived at Kangaroo Island, South Australia in September 1834 with another man John Bathurst, both being described as ‘black men’ (PGW AJ 3/10/1835: 575). Anderson and Bathurst may well have been crewmen aboard American or English vessels that arrived in Port Jackson or Hobart, where they left ship to seek new opportunities, or deserted to escape harsh discipline.

Gibson (1994) describes how traditional European maritime culture and hierarchies transported by naval and whaling mariners to Port Jackson mixed with Pacific cosmologies, and that this mutability crept through all levels of colonial society: ‘The everyday life of the European sailor was relativism in concentrate…They all made lives for themselves by working in ever-modulating environments alongside members of radically different cultures. These were people who knew about setting sails for different winds’.

For communication this diverse mixture of maritime workers, Aboriginals of many different language groups and sealers along the Southern Ocean frontier spoke contact languages—mainly early jargon English with features of ‘foreigner talk’, South Seas Jargon and New South Wales Pidgin, but also possibly broken Kaurna (a South Australian Aboriginal language group) or Tasmanian Aboriginal languages (Simpson 1996: 169, 174).
Whaling

Whaling is documented as starting in Western Australian waters from 1792. The waters surrounding the western third of the Australian continent were known to whalers globally as the ‘Coast of New Holland Ground’. There were three types of whaling that occurred in Western Australian waters namely pelagic whaling, ship-based bay whaling and shore whaling—all types were undertaken in the Archipelago of the Recherche.

Pelagic whaling 1800–1888

Pelagic whaling may be compared to frontier mining or drilling camps, where the ship is an entirely self-sufficient, mobile platform from which to conduct all phases of the resource recovery process, from exploration to resource extraction, processing and transport (Raupp 2015). Compared to their 20th-century ‘fly in fly out’ (FIFO) two weeks on—two weeks off rostered mining worker counterparts, 19th-century whalers were SISO—‘sail in sail out’—with South Seas voyages typically of between two to four years duration. British, American, French and colonial Australian whalers were all involved in pelagic whaling in the South Seas—a generic term for all whale fishing grounds below the Equator in the southern Indian, Pacific, Atlantic and Southern Oceans.

At the eastern extent of the Coast of New Holland Ground, foreign whalers visited the Archipelago of the Recherche seeking oil and bone from sperm, humpback and right whales. The earliest known whalers to visit Western Australia’s south coast were the British ships Kingston and Elligood in 1800. The latter vessel’s crew left a record of their visit on the eastern shore of Oyster Harbour, King George Sound in the form of a copper sheet engraved ‘August 27, 1800–Chr Dixon–ship Elligood’. The sheet was later found on 10 December 1801 by Captain Matthew Flinders (Flinders 1814), though its current whereabouts is unknown.

Dickson (1996: 4-25) compiled a list of 818 visits by English, colonial Australian, American and French whalers to the south coast of Western Australia between 1800 and 1888. Visitation peaked from 1839 through the 1840s, with reports of between 150 and 300 ships visiting the coast in the 1840s (Inq 1/9/1841) although this figure may be exaggerated (Gibbs 1997: 39). Most whalers ‘cruised’ along the continental shelf between Cape Leeuwin and Pollock Reef or Termination Island in the
Archipelago of the Recherche targeting sperm whales all year round, and right whales and humpback whales in their migratory and nursing seasons.

Colonial whalers based in Hobart and Launceston were active in the region from at least the early 1840s through to the 1870s conducting both pelagic and bay whaling voyages off Western Australia’s south coast and in the Great Australian Bight.

**Bay whaling 1838-42**

Ship-based bay whaling was conducted along the Australian and New Zealand coasts by American, French and colonial (mainly Hobart or Launceston-based) whalers. Migrating right whales used the shallow, protected bays along Australia’s south coast as nurseries and for protection from killer whale and other marine predator attacks, the shallow waters not allowing the killer whales to attack from below which was their preferred method (Andrews 1948: 79). Captains would anchor their ships in protected bays in season for periods of between one and four months, targeting the migratory paths and nursing grounds for right and humpback whales. The extended stays allowed crews to venture ashore and plant gardens, farm stock, hunt fresh game, gather water and wood, repair and maintain their ships, and trade flour, alcohol, tobacco and firearms with sealers and Aboriginal people for fresh kangaroo meat and seal, kangaroo and wallaby skins. Bay whaling generally reduced stress on the vessel and crew while maintaining whale catches, as long as the resource had not been depleted. Lookout structures made of local stone and canvas were sometimes built on nearby islands and headlands.

Referring to the influence of Tasmanian whalers one whaling historian wrote that:

> We must not forget the men of Launceston in connection with Bay whaling although their deeds are shrouded in secrecy compared with the stories of Hobart Town. It was the Launceston men who made the southern coast of Australia their happy hunting-ground. They were the men who reached Western Australia and they initiated the first settlements of what was eventually to be Victorian coast. (Dakin 1934: 43)

Bay whaling occurred at a number of places along Western Australia’s southern coast including Safety Bay, Geographe Bay, Koombanah Bay, Flinders Bay (Port Augusta), King George Sound, Cheynes Beach, Torbay, Two Peoples Bay, Red

Observing numerous whale carcasses resulting from American bay whaling activities in Fowler’s Bay, South Australia during November 1840, explorer Edward John Eyre wrote:

> It has often surprised me, that the English having so many colonies and settlements on the shores of Australia, should never think it worth their while to send whalers to fish off its coasts, where the whales are in such great numbers, and where the bays and harbours are so numerous and convenient, for carrying on this lucrative employment. I believe scarcely a single vessel fishes any where off these coasts, which are entirely monopolised by the French and Americans, who come in great numbers; there cannot, I think, be less than three hundred foreign vessels annually whaling off the coasts, and in the seas contiguous to our possessions in the Southern Ocean. I have generally met with a great many French and American vessels in the few ports or bays that I have occasionally been at on the southern coast of Australia; and I have no doubt that they all reap a rich harvest. (Eyre 1845)

While Eyre’s estimate of the numbers of vessels may have been exaggerated, the presence of the French whaler *Mississippi* bay whaling in the Archipelago of the Recherche was to be fortuitous for Eyre and his Nyoongar companion Wylie, who had reached the end of their food and stamina reserves after their epic trek across the Great Australian Bight. Eyre subsequently named the anchorage Rossiter Bay after the generous hospitality of *Mississippi*’s Captain Thomas Rossiter. There may have otherwise been no documentary record of *Mississippi*’s visit had it not been involved in Eyre and Wylie’s rescue.

Between the late 1830s and early 1840s a number of French whalers including the *Mississippi, L’Harmonie, Cousin, Duc d’Orleans* and *George and Elisa* successfully undertook bay whaling on Western Australia’s south coast (Dickson 2007: 65-66, 90-91, 134). Duke of Orleans Bay is described as ‘the best harbour on the [south] coast’ (*WA* 7/3/1936: 7) or more realistically as southern Western Australia’s
second-finest harbour after Princess Royal Sound (Andrews 1948: 98). There is no record of the reason it was named, nor any records yet located of ships bay whaling there, though it is possibly named after the French whaler Duc d’Orleans that fished off Western Australia’s south coast during 1842 while on a voyage from Havre to the southern Australian whaling grounds, New Zealand and Chile lasting from 7 August 1841 to 6 March 1844 (Dickson 1996: 196). Foreign ships preferred isolated bays to entering official ports where they would be charged pilotage and port dues, and customs duties on tobacco and alcohol used in trading or bartering. There were also fewer incentives for crews to desert, although crew members also deserted in isolated locations. Bay whaling provided opportunities for local merchants and resident sealers and whalers living subsistence lifestyles to generate income through trade, by providing fresh game and provisions. Sealers and colonial whalers with small vessels were able to take advantage of the presence of American and French bay whaling activities through tonguing. During one season at Doubtful Island Bay tonguers extracted 6 tons of oil in 30 casks (Dickson 2006: 61).

There were instances of conflict where foreign bay whalers impinged upon the activities of colonial shore whalers. In 1838 HMS Herald ordered the American whaler Tuscaloosa out of Two Peoples Bay to prevent it competing with the recently established colonial shore whaling station there (Gibbs 1998: 9; Dickson 2007: 109). In 1849 the American whaleship Brunswick commenced bay whaling at Cheynes Beach where a colonial shore whaling station had recently been established. The Americans were catching all of the whales, causing the headsman to write a letter of protest to the Government Resident at Albany about foreign nationals fishing in British territorial waters (Dickson 1996: 342; SROWA Cons 346 WAS 1686).

The increased presence of American whalers on the Western Australian coast in the early 1840s caused concerns for the Western Australian colonial government in terms of law and order, fear of unauthorised settlement and even overrunning of established colonial settlements (Gibbs 1996: 3). Apart from the isolated example of action taken by the captain of the HMS Herald, the British government was generally reluctant to take enforcement action against a country it was at peace with, and the Western Australian colonials were very much left to their own devices in dealing with the foreigners extracting valuable resources from British territorial waters (Gibbs 1996: 9).
On the other hand, there were examples of cooperation such as that of George Cheyne who entered into a partnership agreement with Captain Coffin of the American ship *Charles Wright*. Cheyne’s shore whaling party and the *Charles Wright*’s crew assisted each other in catching and processing whales, after agreeing on terms for sharing bone and oil and costs for cooperage (Gibbs 1996: 10).

The Americans’ experience in the industry also benefited colonial shore whalers, as deserting American whaling crew members found ready employment working for the locals. One report from the 1860s stated that ‘the officers, boat steerers, and if they can be procured, 2/3rds of the crews are American’ (Whitecar 1864; Gibbs 1998: 11).

American whaling ships, and eight shipwrecks of American whalers on the Western Australian coast between 1840 and 1846 provided a valuable source of ‘whale craft’—the hardware such as whaleboats, oars, trypots, coils of line, lances and harpoons necessary to successfully undertake whaling. When the American whaleships *Hamilton* and *Julian* went Bay whaling at Middle Island and Cape Arid in 1840, the Albany pilot travelled with them, and at completion of their season *Hamilton*’s captain sold the pilot one of their whaleboats (PMB 687).

The nineteenth century whaling industry died out as a result of petroleum oil replacing the requirements for whale oil in a rapidly industrialising world, the decline of whale populations as a result of unsustainable hunting and impacts to the North American whaling fleet as a result of capture and sinking by Confederate naval forces during the American Civil War. Following a peak of activity in the 1840s, whaling on Western Australia’s south coast tapered off until the last sailing ships to whale off the south coast were the *Canton* and *Platina*, both from New Bedford, in 1888 (Dickson 2006: 621-623).

**Colonial shore whaling 1836-1870s**

Shore whaling differs from ship-based bay whaling as it involves the setting up of shore stations with buildings, tryworks and other infrastructure. Attracted by the potential returns of whaling, a number of colonial entrepreneurs set up shore whaling stations in protected bays at strategic locations along Western Australia’s western and southern coasts. A significant investment was still necessary to equip a shore
whaling station, construct the necessary buildings and boatsheds and hire an experienced crew to catch and process the whales, although they were often paid on a ‘lay’ share system. However, it was substantially less capital than the amount required to fit out a whaling ship, with the added advantage that the oil could be immediately sold and transhipped from nearby colonial ports.

Thomas Brooker Sherratt established Western Australia’s first shore whaling station at Doubtful Island Bay in 1836. In its first year the oil and bone exported amounted to 21% of the colony’s total exports (Wolfe 2003: 10). Wolfe (ibid: 33-34) attributes the immediate success of Sherratt’s Doubtful Island Bay venture to the involvement of experienced sealing gangs, an existing store of sealing equipment that could be used for whaling, and capital accumulated by Albany merchants as a result of sealing trade. Sealing thus paved the way for the development of colonial shore whaling in Western Australia, although not all ventures were equally successful. Shore whaling stations were set up on the south coast at Torbay/ Migo Island, Two Peoples Bay, Cape Riche, Barrier Anchorage and Thomas Fishery, the latter two stations situated on the mainland at Cape Arid opposite Middle Island (McIlroy 1987; Gibbs 1994: 86; Gibbs 1996). The first Middle Island shore whaling station appears to have been established by either South Australian and/or Tasmanian whalers from 1845 (LA 17/7/1845: 3).

Of these various methods of whaling, it is shore whaling that was responsible for the majority of archaeological evidence of whaling in the Archipelago.

Summary
This chapter has provided an overview of sealing and whaling activities in the Australasian region, with specific references to the south coast of Western Australia and the Archipelago of the Recherche. In order to address the research questions stated in Chapter 1, important regional themes are identified such as the unknown extent of early international sealing between 1800-1820; the role that sealers and whalers played in discovering and exploring the southern Western Australian coast; the contribution of knowledge and equipment from sealers that laid the foundations for success of Western Australia’s shore whaling industry and south coast trading routes; the origins of resident sealers from New South Wales and Van Diemen’s Land; the diverse, multi-cultural ethnicities of sealers and whalers; the involvement
of local and non-local Aboriginal people in the sealing and whaling industries including women and children; and the activities of foreign and colonial whalers engaged in bay whaling on the south coast.

Understanding these historical activities informs the archaeological analysis of this research by identifying potential locations for archaeological sites, and providing a framework to allow a more nuanced interpretation of archaeological sites and their associated artefact assemblages by considering cross-cultural contact, gender and socio-economic factors. Chapter 6 presents the results of historical research specifically focusing on regional economic and cross-cultural aspects of Southern Ocean frontier society—the ‘Southern Ocean frontier exchange economy’—the understanding of which is intrinsic to this investigation.
Chapter 6 The Southern Ocean frontier exchange economy

Introduction

This chapter introduces the concept of a ‘Southern Ocean frontier exchange economy’ as part of Australasia’s broader ‘colonial exchange economy’, both vital to understanding early economic activity in Australia and New Zealand. Both terms derive from Usner’s description of a ‘frontier exchange economy’ that operated in North America’s Mississippi Delta during the 1700s featuring exchange of commodities, credit and trade alliances between different ethnic groups (Usner 1987: 167; 1992). Australasia’s Southern Ocean frontier exchange economy broadly encompassed a number of regional, sea frontier economies that shared similar ‘maritime mechanisms’ (Beck 2009) and non-monetary currencies of exchange linked by maritime trade routes. One research question outlined in the statement of aims in Chapter 1 was to examine to what extent Aboriginal people were involved in early sealing and whaling industries in the study area. This chapter sets out to answer this question by examining historical evidence for the involvement of Aboriginal people in the Southern Ocean frontier exchange economy.

Colonial exchange economies operated throughout many regions and settlements, and their importance to Australia’s economic development is not well understood. The contribution of Indigenous societies to these early markets through hybrid exchange economies is significant. Colonial exchange economies were substantially transformed with the establishment of banks and accompanying availability of capital, with the effect of reducing reliance on Indigenous customary economies and barter exchange systems. The way such transformations affected colonial and particularly frontier societies contributes insights into understanding long-term colonisation processes, and both the short and long-term impacts of colonisation on Aboriginal people.

This chapter presents an overview of the regional exchange economies operating in the Swan River Colony and King George Sound settlements on Western Australia’s Southern Ocean frontier, that were in turn directly linked through shipping networks to Australia’s broader colonial economy, and global markets. Colonial sealers and whalers not only targeted marine resources as commodities for export, but relied on those commodities as currency in local markets.
Barter and exchange

Barter involves trading goods or services between parties, and does not require money as a unit of account. It suffers from three main disadvantages: ‘…a want of a coincidence of needs, a want of a measure of value, and a want of a means of subdivision’ (Parker 1982: 140). An advantage was that anything and everything could be bartered. For example in 1824, the Australian Brewery offered beer in exchange for ‘lard and salt, kangaroo skins, houses and eggs, grain and hemp, cattle and sealskins, sheep and fish oil, horses and sawn timber, cedar logs and pigs, pork and shingles, flax and poultry, tobacco and wattle bark, cheese and wood, candles and laths, fuel and soap, shoes and coals, hides and Spanish dollars etc. etc. etc.’ (SG 21/10/1824).

The British government’s plans for settling New South Wales as a penal colony did not include supplying money for currency. Convicts were to be used as labour on farms and infrastructure, with provisions and imported goods supplied by the government until the colony could become self-sufficient in produce. With a lack of cash, no staple exports, no government treasury issuing money and without a private banking and finance sector until 1817, bartering goods and services was an essential feature of early life for settlers in New South Wales (Parker 1982; Butlin 2002). Merchants performed unofficial banking activities by providing credit, and barter was an important means of exchange up until the 1820s, including for the Government Commissariat (Parker 1982: 142-143).

The current investigation describes this widespread system of both formal and informal bartering as Australia’s colonial exchange economy. It operated throughout New South Wales and other areas of Australia in similar but varied forms depending on regional economic factors such as local environment, industries, commodities, transport and population. As sealing and whaling were Australia’s earliest and most valuable export industries, they contributed significantly to regional exchange economies in coastal settlements along the Southern Ocean frontier, as well as to Australia’s financial centres in the major settlements of Sydney, Hobart and Launceston.

Australia had prehistoric Indigenous customary economies involving trade, exchange, social relationships, cultural diffusion and long-distance trading networks
Following the arrival of the First Fleet in New South Wales, Indigenous societies adapted customary economies to interact with the colonial exchange economy, while maintaining traditional cultural aspects and agency (McBryde 2000). Aboriginal people bartered goods such as manufactured artefacts (‘artificial curiosities’), wattle gum, fish, oysters, kangaroo, labour, knowledge and services in exchange for favoured European goods such as flour, bread, sugar, tea, tobacco and blankets. They were also sought after for their knowledge and bush skills as translators, trackers, guides and cultural mediators or ‘diplomats’ assisting exploration parties and settlers. Aboriginal women were valued, and traded for sexual, industrial and domestic purposes. The colonisation process depended on these cross-cultural social and economic exchanges, with implications for interpreting the material record of early colonial archaeological sites both in major settlements and along frontiers.

Three main phases of economic development transformed New South Wales from a penal colony to a free-market capitalist economy:

1788-1800: Trade was dominated by officers of the New South Wales Corps with the main currency being rum. Trade was haphazard, varied in nature and highly speculative;
1800-1810: Trading became more of a full time occupation with free settlers such as Robert Campbell, and emancipated convicts who became traders such as Simeon Lord and Samuel Terry;
1810-1821: Business became a full time occupation in the hands of skilled merchants with an even volume of trading, profits and permanent partnerships to underwrite business ventures (Hainsworth 1969: 282-283; Parker 1982: 140).

Throughout all of these phases of development the situation was one of a disorganised currency and a lack of banks, the Bank of New South Wales only being established in 1817 (Parker 1982: 140; Juhasz 2001: 14). ‘Currency’ could mean anything from promissory notes, receipts, and coins of various issues and denominations including Indian rupees and Dutch guilders, while ‘sterling’ generally meant Spanish silver dollars, the closest thing to an internationally accepted currency at the time (Parker 1982: 140-141).
The Swan River Colony exchange economy

Barter occurred during the earliest cross-cultural contacts, such as when in 1829 Captain Fremantle’s boat crews travelling up Djerbarl Yerrigan (Swan River) met Noongar men who bartered possum skins and artefacts for fish, biscuit and iron knives (Green 1984: 48).

The Swan River Colony’s political and economic foundation in 1829 was as a government-endorsed company colony scheme, later in 1831 becoming administered as a Crown colony much like New South Wales and Tasmania (Butlin 2002: 369). A ‘miserable system of barter’ was essential to the conduct of daily business in the early days of the colony (PGWAJ 29/4/1837: 292; Butlin 2002: 373). In a bid to overcome the problem of a lack of currency, in 1833 a group of merchants and agriculturalists proposed formation of a Swan River Barter Society, each agreeing to accept the others’ notes as cash though this never eventuated (PGWAJ 12/10/1833; Butlin 2002: 373). Newspaper classified advertisements typically advertised goods and services including property, wool and animal hides for sale or barter (e.g. PGWAJ 4/4/1835: 469). For example in 1836, wheat was being advertised as being taken in barter for other commodities at 7s. and 8s. per bushel (PGWAJ 31/12/1836: 824).

Noongar men, women and children were involved in the Swan River Colony’s exchange economy from the outset. Traditional life was transformed as new activities produced goods and services that could be bartered for flour, iron tools and other provisions. In 1835 Noongar women bartered cobbler fish with Swan River settlers in exchange for flour and bread (Green 1984: 107). Noongar also collected wattled gum to trade for flour, the exchange rate being 4 measures of gum for 1 measure of flour, translating to 100 kg of gum for a barrel of flour. Stirling (1894: 10) recorded that in one month in 1836 Noongar traded 8cwt (896 pounds or 406.4kg) of ‘manna gum’ for flour. It is significant that in this year 15 tons of gum was exported, making it one of the colony’s main exports (Green 1984: 116; PGWAJ 11/6/1836: 710).

Kangaroo and wallaby meat and skins were a valuable commodity for both Indigenous and non-Indigenous people in Western Australia. As newcomer settlers expanded into the Swan River coastal plain troops, shepherds, sandalwood gatherers
and homestead owners supplemented their income by selling kangaroo skins (Green 1984: 184). By 1836 Noongar unrest in the Swan River Colony area was blamed on the lack of game due to depletion of kangaroos, and men of the Lower Swan and Canning became dependent on trade with northern tribes for kangaroo skin cloaks and bags (ibid). Access to Noongar land, cultural sites and food resources became restricted, in turn limiting their ability to obtain skins and fresh meat to barter for flour and sugar. Noongar resisters fought back by attacking settlers and killing stock, with York settlers offering sheaves of wheat as a bounty for the capture of Aboriginal attackers (SRG 20/7/1837; Green 1984: 22).

As many of the above references attest, flour and bread were both a dietary staple and significant commodities in the colonial exchange economy. As an attractive new food source for Noongar, settlers could grow wheat and trade flour, biscuit and bread to trade for fresh game, fish and labour. Large amounts of bread were needed for large workforces, and provisions in the form of bread and flour formed part of workers’ payments, in lieu of cash.

It was not until after the establishment of the Western Australian Bank in 1837 that ‘the system of barter, so prejudicial to all classes, has nearly ceased; wages, generally, are now paid in money; the produce of the land is disposed of at remunerating prices; mercantile operations are facilitated; and a system of regularity in payments has been introduced’ (PGWAJ 9/6/1838: 91). However, in the same year town allotments continued to be exchanged in barter transactions, in some cases ‘for a pint or two of rum’ (Stirling 1894: 10) indicating the transformation was not immediate.

The King George Sound colonial exchange economy

The British colony at King George Sound—subsequently named Frederickstown and later Albany—was settled as a military garrison and penal colony in 1826 under the command of Major Edmund Lockyer. It remained a small coastal settlement for most of the 19th century, with a population rising from 150 in 1835 to 1538 in 1870 (Gibbs 1995: 286-287).

Prior to colonisation King George Sound was visited by explorers and other shipping to take shelter and take on wood and water. Having become used to newcomer crews from visiting ships arriving on their shores to collect water, firewood and exchange
goods for Aboriginal artefacts, by the time of Captain Phillip Parker King’s visit to King George Sound in 1821 Minang men were friendly and shouted the word ‘badoo’ for water sourced from a Sydney Aboriginal dialect (Green 1984: 37).

The arrival of larger ships (*caibre*) was a cause for celebration and chanting for the Minang, as *caibre* brought goods that led to trading exchanges. The Minang distinguished *caibre* from smaller boats (*potora*) that could be carrying sealers. *Potora* did not bring large amounts of goods but rather their crews presented a potential threat to Aboriginal people, as sealers were known to have killed men and forcibly abducted women and children, and were therefore to be avoided (Shellam 2009: 133-137).

Minang men had a well-developed manufacturing industry to produce items they could barter to profit from the ‘maritime tourist trade’. During their two week stay in King George Sound in 1821, King and his crew obtained a total of 100 spears, 30 throwing sticks, 40 hammers, 150 knives and some hand clubs by bartering an eighth of a biscuit for each artefact (Shellam 2009: 183-184).

The exchange rate for these artefacts had increased substantially by the time of Captain Collett Barker’s arrival at King George Sound in 1830. Barker recorded ‘waneras’ (woomeras), spears and knives being exchanged, the rate now being 2 pounds of biscuit for a wanera. Barker also described knives being manufactured using worked bottle glass instead of traditional quartz (ibid: 337). As occurred in the Swan River Colony, this new hybrid exchange economy changed traditional life. In December 1830, Captain Collett Barker commanding the King George Sound garrison wrote of Mokaré’s description of how the young ‘towans’ (parrots) were ‘…always eaten by them, formerly being considered a great delicacy, till the white people came and set such a value on them for keeping’ as pets (Green and Mulvaney 1992: 368). Barker observed that Minang did not value property beyond their spear, wanera, knife, tomahawk and kangaroo skin, though they would eagerly trade goods and services for European foods such as bread and biscuit (ibid: 350). The numerous references by Barker of Minang manufacturing spears and other artefacts to barter with soldiers (ibid: 333, 337) raises the possibility that the soldiers were collecting artefacts for their own private trade, to supplement their incomes.
As an indication of goods desired by Minang, when Western Australia’s Lieutenant Governor Irwin visited King George Sound three years later in 1833, he reported that:

…the settlers were contented and happy, and on the most ameable [sic] footing with the natives, many of whom were employed in carrying wood and water, and performing other services for which they were regularly remunerated; frequent instances occur of their bringing in oysters, wallabies and fish in barter for bread…Presents of knives were made to those most deserving from their good conduct, and blankets and tomahawks were left to be disposed of hereafter occasionally in a similar manner. (PGWAJ 9/3/1833: 38)

Irwin’s descriptions of ‘employment’, ‘other services’, ‘regular remuneration’ and ‘barter’ is evidence for a well-established hybrid exchange economy, with little or no dependence on money for currency. A key feature of the King George Sound colony was that both the small number of settlers’ and Minang needs were being met, and relations were amiable. There was not the pressure on Aboriginal traditional life by colonial settlement encroaching into the hinterland accompanied by violence, which by this time was accelerating in the Swan River Colony. Aboriginal people were also involved in carrying out some official duties, such as when in July 1838 three Minang men were employed delivering the overland mails from King George Sound to Perth (PGWAJ 28/7/1838: 118).

Irwin’s description may be compared with a report 16 years later in 1849:

The population of the Sound is approximately 200 or 250 persons. It is really surprising how they continue to live, as there appears to be scarcely any trade or means of support. The settlers are chiefly employed in hunting the kangaroo, for the sake of that animal's skin. The settlers depend chiefly, not upon agriculture, but upon the sale of kangaroo skins, whale oil, and the other sales and barterings effected during the occasional visits of the few American whalers that call at the Sound for wood and water (PG 10/2/1849).

This later report does not allude to any Aboriginal involvement in the maritime-based exchange economy, while the description of settlers hunting kangaroos suggests an expansion of settlement activities into the hinterland. In 1847, 8,000
kangaroo skins had been shipped from Albany (Green 1984: 95,184). The 1849 report is perhaps an indication of a shift in the local exchange economy and settler activities with increased pressure on traditional hunting grounds and resources, increased reliance on American whaling ships for trade and less reliance on Aboriginal exchange networks. However, like Irwin’s report, it appears that the settlers were meeting all of their needs through a maritime-based exchange economy.

Both colonial shore whaling and trade with foreign whalers were significant contributors to Albany’s economy up until the 1870s, and Albany maintained a ‘culture of whaling’ into the 20th century with second and third generation whaling families incorporating whaling as part of the normal seasonal round of economic activities (Gibbs 1995: 286, 319; Pitt Morrison 1979: 235).

Whaling also transformed traditional life, as Aboriginal men became involved in the shore whaling industry. In 1848 it was reported at King George Sound that ‘upwards of 70 tons of oil and 2 tons of bone have been secured by two boats’ crews, part of whom were natives. One of these had a full lay due to him. When they were settled with he distributed bags of flour, sugar, blankets, tobacco, tomahawks, knives, etc., amongst his friends. The black ladies now declare they will accept no husbands except they will go whaling’ (Inq. 29/11/1848: 3). This reference is of interest for the fact that Aboriginal men were paid on the same lay system as non-Aboriginal whalers, that the payment was in the form of goods and that the goods were distributed apparently according to traditional social and kinship obligations. If the report is taken at face value, there was a significant transformation in the socio-economic status of Aboriginal men working as whalers within their own community, with associated changes to traditional marriage practices. It also shows how Aboriginal society incorporated European material culture through such exchanges. In 1850 an Aboriginal whaler at Bunbury, Jack Crow, is described as working for both cash and provisions as a ‘pull-away hand, upon a liberal allowance; he is to have three feeds a-day, and the sum of 2s. 6d. on the capture of each whale, besides a further remuneration of 20s. at the termination of the season. The natives expect an immediate reward for their work, and for that reason he received his 2s. 6d. directly the whale is grounded’ (Inq. 29/5/1850: 2). This reference is also of interest as it shows the dependence of European whalers on Aboriginal labour, and that they were willing to meet Aboriginal demands to modify industry-standard terms of payment.
By the early 1840s the influx of foreign whaling ship crews on shore leave in Albany had other impacts on the Aboriginal population, with the prostitution of women and sickness and mortality caused by venereal diseases. The means of exchange were money, tobacco and alcohol (Campbell Taylor and the Cape Arid connection: Part 2—The 1840s [2016]; Nairne Clarke to Governor Hutt, March 1843, CSR Vol. 16 Folio 224-229).

The Southern Ocean frontier exchange economy

The Southern Ocean frontier was a broad geographic and ecologically defined region featuring an ‘archipelago’ of isolated, informal settlements along Australia’s and New Zealand’s southern coasts. Sealing and whaling were the key drivers for maritime exploration and colonisation along the Southern Ocean frontier, and export sales of oil, bone and pelts provided capital for local mercantile and agro-pastoral ventures to expand the colonial frontier further into the continent’s hinterland. Sealing and whaling attracted foreign shipping, led to commercial relationships between colonial merchants and major mercantile houses in London, India and China, and transformed Sydney from a penal colony into the major shipping and financial centre of the South Seas (Little 1969: 113).

Employers paid sealers involved in the colonial Sydney sealing industry in lay shares—a percentage of the total catch. Payment was made to sealers in the form of skins and oil, for which they had little use, so ‘sold’ it back to their employer at a standard Sydney price of 3s per skin. However, the employer did not actually pay cash, but operated on a credit system, for example he might have advanced the sealer spirits worth 9p at a 200% or even 400% mark-up. The employer then sold the skin to a colonial merchant such as Robert Campbell for 3s or directly on the London market for up to 7 or 10s, in this way making a handsome profit despite ‘high labour costs’ (Hainsworth 1967: 71).

From the early 1800s the Bass Strait islands became the cradle of a mixed race society and economy based on a variety of marine and hinterland resources, that in turn laid the foundation for a regional, mixed resource, maritime-based frontier exchange economy. Sealers, whalers and traders moved westwards following marine resources of seals and whales, expanding the Southern Ocean frontier to reach the western coast of New Holland. The small island mixed economies of Tasmania’s
Bass Strait islands that operated through the 19th and 20th centuries involving Aboriginal women (*tyereelore* and *wanapakalalia* clanswomen) and European men (‘Straitsmen’ or ‘Islanders’) evolved from negotiated exchanges between the first sealers and Aboriginal groups on Tasmania’s north-eastern coast (Cameron 2011). Sealers settled on uninhabited islands with Aboriginal women, adapting to survive with minimal imported goods and relying on what they could catch, hunt and grow to supply their needs.

In Captain James Kelly’s circumnavigation of Van Diemen’s Land in a whaleboat in January 1816 voyage, he found that ‘…after leaving King George’s Island and Rocks we had been there nine days, and had procured 122 [seal] skins and 246 kangaroo skins from the natives, the value of which was £180 at Hobart Town (*VDLC* 14/4/1854: 3)’. However by the 1830s, Protector of Aborigines George Augustus Robinson recorded of the Bass Strait sealers that ‘the seal skins they procure is not a quarter sufficient to support any one of them’ (Plomley 1966: 329).

Sealers subsisted by selling and bartering a variety of goods to supply them with their necessities of women and provisions. Robinson and others recorded trade and exchange between sealers, Aboriginal people and mainland settlers in seal, kangaroo and wallaby skins, dogs, women, gemstones, mutton bird meat, eggs, feathers and oil, albatross feathers, swan feathers, salt, flour, tobacco and vegetables (Table 2).

**Table 2: Items and their values traded in Bass Strait 1802-1833.**

<table>
<thead>
<tr>
<th>Item</th>
<th>Exchanged for (value)</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seal skins</td>
<td>Woman (=2 seal skins)</td>
<td>Plomley 1966: 289</td>
</tr>
<tr>
<td>Salted sea elephant tongues (King Island)</td>
<td>Sold ‘at the price of the best salted provisions’</td>
<td>Péron (1802) in Micco 1971: 32</td>
</tr>
<tr>
<td>Anchor (salvaged)</td>
<td>1 gallon rum</td>
<td>Plomley 1966: 348</td>
</tr>
<tr>
<td>Potatoes</td>
<td>£4/ ton; 5/- per cwt</td>
<td>Plomley 1966: 304, 361</td>
</tr>
<tr>
<td>Pigs</td>
<td>2 pence/ pound</td>
<td>Plomley 1966: 361</td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
<td>Source</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------------------------------------------------------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>1 Aboriginal woman</td>
<td>1 dog/ 2 seal skins/ mutton birds/ flour/ provisions</td>
<td>Plomley 1966: 289, 306</td>
</tr>
<tr>
<td>100 wallaby skins</td>
<td>8 pounds tobacco</td>
<td>Plomley 1966: 369</td>
</tr>
<tr>
<td>Muttonbird feathers</td>
<td>5-6 pence/ pound (25 muttonbirds = 1 lb)</td>
<td>Plomley 1966</td>
</tr>
<tr>
<td>Muttonbird meat (in cask)</td>
<td>(no value given)</td>
<td>Plomley 1966: 385</td>
</tr>
<tr>
<td>Albatross feathers</td>
<td>9 pence/ lb (3 birds = 1 lb), 1/- per lb to merchants in Launceston</td>
<td>Plomley 1966: 694, 699</td>
</tr>
<tr>
<td>Albatross feathers and eggs</td>
<td>Sealers traded with natives</td>
<td>Plomley 1966: 694</td>
</tr>
<tr>
<td>Crystal</td>
<td>£2</td>
<td>Plomley 1966: 361</td>
</tr>
<tr>
<td>Meat</td>
<td>40 lb @ 3 pence per lb</td>
<td>Plomley 1966: 307</td>
</tr>
</tbody>
</table>

By the 1830s Bass Strait sealers had introduced crops and livestock to provide themselves with a subsistence lifestyle, ‘but the seal and to a lesser extent kangaroo skins, had traditionally provided them with the means to obtain cash and goods from the wider world’ (Kostoglou 1996: 19).

Plomley and Henley (1990: 53) state that it was not until after the sealing period when whaling began in New Zealand, that any permanent associations between Maori and Europeans were formed. However, there are examples of established relationships, cross-cultural contact and barter between sealers and Maori. In November 1822 the New South Wales government sent Captain Edwardson in the 29-ton sloop Snapper to New Zealand to investigate the potential for the flax trade. Edwardson met two renegade Port Jackson sealers, Stuart and James Caddell, who were living with Maori. Having become tattooed and adopting Maori cultural ways Caddell entered Maori society as a minor chief, while Stuart worked as a pilot for Maori chiefs to discover the hiding places along the coast of American sealers who were not cooperating with the Maori. Caddell piloted the Snapper to Pahia (Cosy Nook) where Edwardson bartered iron fish hooks, nails, knives, scissors, hatchets, razors, glass beads and trinkets for flax and potatoes (Richards 2010: 208-209).
By the 1820s and 1830s an associated network of coastal shipping routes developed to support the existence of a number of small-scale, informal settlements along Australia’s southern coast and islands. The main nodes for activities were Bass Strait, Westernport, Portland Bay, Kangaroo Island and King George Sound. Most of these informal settlements along Australia’s south coast preceded formal colonial settlement of Melbourne (1835) and Adelaide (1836). These informal settlements were linked directly to the colonial and global economy through a market trading in seal skins, kangaroo and wallaby skins, whale oil and bone, sandalwood and wattle bark.

For example in 1833, the 24-ton Defiance ‘…belonging to Messrs. Chapman and Meredith, has gone round the Western Coast, for the purpose of picking up skins from the sealing parties. Captain Hart, of the Elizabeth, it is said, after discharging at Launceston, will follow in the same speculation’ (SH 30/9/1833: 2). Of the same voyage the Sydney Monitor reported that ‘the Defiance has gone to the Western coast to purchase skins from the sealing parties there’ (SM 2/10/1833). Defiance had earlier been reported as returning ‘from a sealing trip...with 530 seal skins, 2,500 kangaroo skins etc. etc.’ (SGNSWA 28/5/1833: 2a).

In 1833 kangaroo skins fetched 1s. to 2s. 6d. (WAJ 6/4/1833: 54), while prices on the London market for ‘seal skins’ (i.e. fur seal skins) were listed as:

Seal skins wigs middling 40s. to 45s.; small 40s. to 42s.—the above are much in demand; large pups, 34s. to 38s.; middling ditto, 32s. to 36s.; small ditto, 25s. to 28s., ordinary or low quality about half the above prices. (WAJ 6/4/1833: 54)

In 1842 William Nairne Clark described the activities of sealers and whalers along Western Australia’s south coast, and how seal skins destined for the London market were procured in exchange for stores in the local market:

During the winter months, when not engaged in sealing, the sealers hunt kangaroo around the various bays, and supply the crews of American and French ships with fresh meat, for which they receive biscuit, flour, and salt pork in exchange; so that, altogether, it may be said with truth, there is a considerable traffic carried on with foreign shipping in that part of the
settlement. Others pilot foreign ships into the various bays where the whales are most abundant, and receive a gratuity of about £50 during the season, according as the ships are more or less successful. (*PGWAJ* 8/10/1842: 3)

... I may remark that whilst the skin of the hairy seal, is only worth between four and five shillings, that of the fur seal fetched nearly fifteen shillings at King George's Sound, and has been sold in London for £2 2s. each thus affording a large profit to the buyer, more especially as the original price is generally paid in stores on which there is a large profit accruing to those who are skilled in the craft of merchandize. (*PGWAJ* 3/9/1842: 3)

By the 1830-1840s masters of small colonial vessels such as *Mountaineer*, *Defiance*, *Vulcan*, *Thistle*, *Alpha* and *Elizabeth* were sealing and trading along established shipping routes along the south coast visiting small maritime frontier settlements in Bass Strait, Encounter Bay, Kangaroo Island, King George Sound and the Swan River Colony. Provisions such as flour, tea, alcohol, tobacco and sugar were traded in exchange for seal, kangaroo and wallaby skins, salt and oil (*PGWAJ* 3/10/1835: 575; *SA* 1/4/1845: 2; *Bride* 1969: 51-55; *Dickson* 2007: 271). On December 1831 Captain John Hart anchored his schooner *Elizabeth* in Nepean Bay, Kangaroo Island, and bought 150 seal skins and 12,000 wallaby skins from the 16 or 18 resident sealers and their Aboriginal wives then living on the island. From one settler and his two Aboriginal wives he obtained 7000 wallaby skins ‘of a kind peculiar to this island–very small, fine-furred and beautifully mottled in colour’, afterwards selling them in Sydney for the China market (*Bride* 1969: 53). Hart described how ‘these islanders were principally men who had left various sealing vessels when on their homeward voyage, the masters readily agreeing to an arrangement by which they secured for the next season all the skins obtained during their absence’ (*Bride* 1969: 52). He also described a unique ‘market day’ when ‘…on a certain day, once a year, they assembled from all parts of the island to meet the vessel in Nepean Bay, and dispose of their skins, getting a supply in return for the following year, the only money being required being a sovereign or two for making earrings’ (ibid).

Describing both the exchange economy in marine and hinterland resources, and importance of the shipping network between early settlements along the Southern Ocean frontier, Thomas Clarence Andrews wrote ‘the traders in between voyages
would gather seal pelts and Cape Barren Geese and trade them to the settlers in exchange for kangaroo skins and sandalwood [sic]...when the recognised whalers shifted their bases the settlers of the Bight were left without communication’ (Andrews 1948: 123).

Also important were French and American whalers who, after fishing the New Holland Ground off Western Australia, visited local ports to barter sperm whale oil, firearms, slops (clothing), flour, sugar, ships’ biscuits, calico, red flannel shirts, Manila straw hats, boots, tobacco, molasses, spirits, surplus provisions and rigging, knives, whaleboats and whale craft for firewood, water, butter, chickens and fresh vegetables for their journey home (PGWAJ 28/12/1839: 20; Inq 28/5/1849:2; Eluwawalage 2013; Gibbs 2000: 12-14; Jerome 2008). The Americans avoided larger ports when possible, preferring to visit outlying ports and settlements without port charges. Explorer George Grey (later Governor of South Australia, New Zealand and the Cape Colony in South Africa) described how American whalers ‘...constantly frequent the outports of Western Australia, supply the wants of those retired portions of the world, and where, legitimately, the British manufacturer should command the market, little besides the produce of America is to be seen. The settlers at these stations derive the largest portions of their supplies from the American whalers, who give them in exchange for potatoes and vegetables—and this species of barter is so profitable to both parties that it would be impossible to prevent it’ (Grey 1841: 202).

An interesting example is when in 1840 the Albany pilot joined the crew of the American whaling ship Hamilton for a successful two month bay whaling season at Cape Arid and Middle Island in the Archipelago of the Recherche. At the conclusion of the season, Hamilton’s captain ‘sold’ the pilot the quarter boat (Log of Hamilton 1839-1841, September 14 1840, PMB 687). The Albany pilot’s acquisition of this asset is likely to have been in full or partial exchange for the value of his lay share of the oil and bone.

**Indigenous contributions to the Southern Ocean exchange economy**

As described in the examples above, Indigenous people made a significant contribution to the Southern Ocean exchange economy in terms of labour, knowledge and provision of goods that settlers could acquire through barter.
Altman (2010) and Lloyd (2012) have employed the concept of ‘economic hybridity’ when investigating Indigenous involvement in both historical and modern Australian economies, meaning that Aboriginal people ‘were able to adapt for a period to the powerful presence of European groups and their production system by, in effect, innovating a hybrid form of production based on exchange’ (Lloyd 2012: 27) (Figure 34).

![Figure 34. Altman’s (2010) Venn diagram of economic hybridity representing the customary Indigenous economy interacting with the state and free market economies.](image)

Lloyd (2010: 31) describes economic hybridity as being ‘…a development on both sides in the sense that settlers can accommodate to some extent at the same time as Aborigines become partially incorporated into some new form of economic relationship with the capitalist economy’. In coastal areas particularly, ‘Aboriginal people had knowledge and effective traditional fishing techniques such that they could trade with local settlers’ (ibid).

Quantifying historical levels of exchange activity and the extent of dependence of all groups on each other is difficult, but there is sufficient documentary evidence to demonstrate that one of the earliest key processes of socio-economic transformation along the Southern Ocean frontier was the appearance of hybrid exchange economies.
based on marine and hinterland resources. This exchange system involved the government, settlers, Aboriginal people and sealers and whalers (Figure 35). With access to shipping networks the Southern Ocean frontier exchange economy was directly linked to Australian and global economies (Figure 36).

Figure 35. Diagram illustrating the hybrid nature of the Southern Ocean frontier exchange economy.

Figure 36. Diagram illustrating links between the Southern Ocean exchange economy, Australian colonial economy and global market.
As agro-pastoral-driven settler societies expanded into the hinterland claiming more territory, there was a coinciding growth in the availability of capital and more formalised, official trade with world markets. As political, economic and territorial boundaries were accordingly transformed—shifting both inland and maritime frontiers—and capital became increasingly more available, settlers depended less on hybrid, customary economies for their survival. In terms of modelling the Southern Ocean frontier, the process of transformation from a hybrid exchange economy to a more global-based, market economy is a key towards understanding broader-scale socio-economic transformation through processes of colonisation.

Summary

Australia’s colonial exchange economy was a market economy that included the essential ingredients of labour and commodities (production), exchange, shipping and trading network (distribution) and individuals, merchants and government (consumption). Regional exchange economies along the Southern Ocean frontier featured barter transactions in goods and labour, and were based on regionally and annually variable values of commodities such as seal skins, whale oil, kangaroo and wallaby skins, wheat and flour. Indigenous people contributed essential knowledge, labour and trade to the colonial economy in exchange for goods and provisions. Foods such as fish, oysters, kangaroo and wallaby meat, bread and flour can be viewed not only as dietary staples but as trading commodities with mutually recognised values exchanged between Aboriginals and Europeans in lieu of cash. This chapter demonstrates that Aboriginal people were an integral part of the Southern Ocean frontier exchange economy. This is a significant lens through which to view colonial trade and exchange relationships, and accordingly to interpret historical archaeological sites on the Southern Ocean frontier.

Most early sealing and whaling settlements were seasonal, though in some cases—notably the Furneaux Group of islands in eastern Bass Strait, Western Victoria (Portland Bay and Port Fairy), Westernport, Kangaroo Island and Encounter Bay—sealers and whalers established semi-permanent or permanent settlements. One reason these informal, seasonal settlements have not been seriously regarded as part of broader colonisation processes in Australia may be that—as well as not being officially recognised at the time—they required a particular maritime skill set and were not designed to accommodate convict or emigrant proletarian labour
contributing to an agro-pastoral settler society, which has been the dominant historical narrative in Australia’s development.

In the early stages of hybrid colonial exchange economies, Aboriginal societies were in a stronger position to negotiate their terms of exchange, as they still outnumbered newcomers and retained access to traditional lands and resources. Early colonial settlements were rarely self-supporting and settlers were dependent on sporadic imports. Aboriginal people still often outnumbered the settler population, and were economic partners with autonomy over the types of goods, labour and knowledge they exchanged. As newcomers came to outnumber the Aboriginal population and progressively invade the hinterland—transforming cultural boundaries by excluding Aboriginal people from their traditional lands and resources—Aboriginal influence was lessened, though they were still intrinsic to frontier exchange economies as colonists remained dependent on Aboriginal labour.

Significant transformations came with the establishment of political, religious and economic institutions such as churches, missions, banks, government administrative functions and availability of capital. With money as the dominant currency of exchange, the influence of barter and the customary economy in colonial life was diminished, affecting the economic flexibility and autonomy of Aboriginal people. Another factor was the transformation of land with traditional ownership/custodian rights, into property as inheritable material wealth. Through these political, cultural and economic frontier transformations Aboriginal people lost their ability to trade, access traditional land and maintain their customary economies on a more equitable basis. Accordingly they were unable to maintain an economically, culturally and socially independent existence, forcing them to either fully adapt to the state economic system, or be excluded from it.

In summary, the Southern Ocean frontier exchange economy linked geographically isolated settlements along the Southern Ocean frontier, which were in turn directly linked to the colonial and global economy through shipping. Aboriginal peoples’ labour, knowledge and trade contributed significantly to the development of Southern Ocean frontier society, which has formative social and economic importance to Australia.
Chapter 7 Maritime cultural landscapes and seascapes of the Archipelago of the Recherche

Introduction

Following a wide survey of Australia’s Southern Ocean frontier considered in Chapters 5 and 6, this chapter narrows the focus to a detailed examination of the Archipelago of the Recherche (Figure 37).

Figure 37 Key map of Archipelago of the Recherche.

Formed by the theoretical considerations outlined in Chapter 3, and utilising the archaeological research methods presented in Chapter 4, this chapter begins to address the research questions relating to archaeological data, namely ‘Does the historical and archaeological data contribute to our understanding of the nature and extent of early sealing and whaling activity in the Archipelago of the Recherche?’ and ‘Do the archaeological sites exhibit evidence for gender, ethnicity and cross-cultural contact?’ To realise multiple cross-cultural perspectives this chapter
considers first some aspects of the pre-contact Noongar cultural landscape of the south coast of Western Australia.

Next, follows a description of investigations into archaeological sites and places identified as part of the sealing and whaling maritime cultural landscape of the Archipelago that include hunting grounds, anchorages and bay whaling sites, cache sites, shore whaling stations, sealing camps, whaling lookouts, shipwrecks and other underwater cultural heritage sites, shipwreck survivor camps, gardens, salt pans, graves, pathways, ballast quarries and Aboriginal sites related to sealing and whaling. These archaeological sites and places are depicted on the following maps (Figure 38, Figure 39, Figure 40)

![Figure 38. Map 1 - GIS map of archaeological sites in western Archipelago of the Recherche area.](image-url)
Figure 39. Map 2 - GIS map of archaeological sites, central Archipelago of the Recherche including Cape Arid and Middle Island area.

Figure 40. Map 3 - GIS map of archaeological sites, eastern Archipelago of the Recherche including Israelite Bay and Eastern Group area.
Indigenous landscapes and seascapes

It is important to recognise that the entire Archipelago of the Recherche and adjacent mainland is an Aboriginal cultural landscape that contains a rich diversity of significant cultural sites including rock art, fish traps, rock shelters, gnamma holes, lizard traps, artefact scatters, quarries, food and water sources, stone arrangements and burials. For Wudjari people in the Esperance region, their cultural systems were interwoven with the landscape and its ecosystems, and their cultural landscape is inseparable from the natural landscape (Mitchell 2010: 9). The cultural landscape can be thought of as a web of connections between places, linking inland and coastal areas especially where they are connected by drainage systems and inlets (Guilfoyle and Mitchell 2015). For the purposes of this investigation, there are a discrete number of Aboriginal sites that are potentially associated with historic-era sealing and whaling. As the Aboriginal experience encompasses both the prehistoric and historical/post-contact period, including a process of adaptation between traditional and newcomer lifeways, the archaeological record should be considered accordingly.

Smith (1993: 350-351) argues that the Esperance coastal plain supported a mobile population of 300-400 people during the late Pleistocene period. The granite monoliths that are the most striking feature of the landscape collected water run-off, and provided advantageous lookout points and shelters from prevailing winds and rain, allowing Aboriginal people to ‘cope successfully with a marginal environment characterised by unpredictable conditions for human survival’ (ibid: 366). This behaviour included high mobility, and efforts to increase resource predictability during the late Pleistocene period by covering gnamma holes with stones, constructing fish and lizard traps and storing *Macrozamia* (‘zamia palm’) kernels (ibid: 357).

Ethno-historic accounts record exploitation of coastal marine life, including seals, crabs, sea birds and stranded whales. A neo-natal cremated burial at Cheetup rock-shelter was recorded to have been buried with seaweed at a time when the coastline was estimated to be some 80km distant (Smith 1993: 345). A distinctive, dark honey-coloured bryozoan fossil chert is the dominant lithic type found on the islands. The sources of this material have not been found and are assumed to have been closer to the islands than other sources of chemically different chert on the mainland, and are believed to be now submerged (Smith 1993: 346). Bryozoan
cherts occur in the lowest levels of the excavated, stratified deposit of Cheetup rock-shelter dated to ca.13,000 BP, lending support to the hypothesis that the source was submerged by rising Holocene sea levels (Smith 1993: 149, 222). Island sites are interpreted as representing at least two phases of occupation—one before rising sea levels cut off access to the islands, and the other post-European contact (Dortch and Morse 1984: 31).

There is no ethnographic or archaeological evidence for Noongar using watercraft in southwest Western Australia, though their coastal economy included inshore fishing, mainly of schooling species, and fishing along protected ocean coasts (Dortch 1997; Smith 1999). Fishing techniques included hand-spearing, constructing tidal weirs, fish traps and organising ‘fish drives’ where fish were herded by groups of people into shallow water to allow spearing or catching by hand. Numerous berley grinding patches are found in granite rocks along the waterline, and it is assumed people were baiting the water to attract fish for spearing, as hooks were not traditionally used in the area. There is no ethnographic evidence for open ocean coastal fishing, and fresh water fishing was a minor activity. Coastal changes associated with sea-level rise and subsequent changes to Aboriginal fishing strategies in the Late Holocene period led to fishing having regional economic and socio-political significance (Dortch 1997: 16).

For the Noongar of southwestern Western Australia the sea represented a liminal boundary between the living and the dead, unborn or dreaming. Arriving in 1829 Francis Fraser Armstrong was one of the Swan River Colony’s first settlers, a devout Methodist and businessman interested in Noongar well-being, customs and language. He became proficient in Noongar language, was appointed as ‘Native Interpreter’ in 1834 (WA 25/4/1836), published a Noongar word-list and a series of articles in the Perth Gazette and Western Australian Journal. Armstrong recorded that Noongar Wadjuk people in the Djerbarl Yerrigan/Swan River area:

…believe that the spirits, or “goor-doo-mit” of deceased persons pass, immediately after death, through the bosom of the sea to some unknown and distant land, which becomes henceforth (as they believed before their intercourse with our settlers) their eternal residence. But in this latter particular the arrival among them of whites has led to a total change of creed. For they
very soon recognised among their new visitors many of their deceased relatives and friends...by their countenances, voices and scars of former wounds...The name which they invariably apply to the whites, when talking of the latter among themselves, is “Djanga”, or “the dead”...They attribute the change in complexion, in the whites, to their ghosts having passed through so much water in their posthumous trip through the ocean... It is invariably believed that their women conceive in consequence of the infant being conveyed, by some unknown agency, from somewhere across the sea into the mother’s womb. When a person is in a very deep slumber, the Interpreter has heard them say of him, “Now he is away over the sea!”, meaning, as he has collected from them, that his spirit or mind, which had come here as an infant, had gone back to its own country. (*PGWAJ* 29/10/1836: 789)

This passage is significant as it indicates that following their encounters with *wadjela* (white people) Wadjuk people apparently had a ‘total change of creed’, yet were able to adapt and maintain their cosmology to incorporate the existence of *wadjela*.

Prior to contact with newcomers from ships and boats, Armstrong reported how Wadjuk Noongar had seen ‘objects pass along the coast, which they now know to have been ships, but which they thought to be monsters coming to devour them, which terrified them to such a degree, that they represent themselves to have sat down in despair, and done nothing but cry until the monsters disappeared’ (*PGWAJ* 29/10/1836: 789). Another Noongar story from the Busselton area tells how there used to be a huge white bird that lived in the southern part of the country that one day flew away over the sea. The Noongar thought the ships were the big white bird returning until they saw the *djanga* (white people) on board (Collard and Palmer 2008: 184). White people were variously thought of as devils, or as returning spirits of dead relatives coming home who were welcomed as members of their family (ibid: 182, 184).

Noongar Wadjuk, Wiil, Minang, Wudjari and Ngatju from Western Australia’s southwest and south coasts have described creation events involving people, animals and celestial phenomena to explain the origins of Rottnest Island, Garden Island, Green Island, Oyster Harbour, Culham Inlet, Bremer Bay, Chatham Island, a reef at
Cape Riche and coastal features in the Archipelago of the Recherche (*PGWAJ* 29/10/1836: 789; Guilfoyle and Mitchell 2015; Keen 2004: 223-224; Yorkshire-Selby 2011). For example, Middle Island in the Archipelago of the Recherche is associated with a Noongar Wudjari dreamtime story about Tjoort who created the coastline and islands, Middle Island representing the knees of Tjoort (Doc Reynolds, pers. comm., 5/1/16) (Figure 41).

![Middle Island](Ross Anderson/ WA Museum)

**Figure 41.** Middle Island, associated with a Wudjari creation story, view south from Cape Arid (Ross Anderson/WA Museum).

A smoothed disc manufactured from a whale’s vertebral ephiphysis, collected from an Aboriginal campsite near Kalgoorlie in 1897 by Western Australian naturalist Christopher George Jessup (1881-1962), is interpreted to have been used as a utilitarian dish, or to have had some other mythological or ceremonial significance (Dortch 1988: 145-149) (Figure 42). Given the significance of bone in Indigenous rituals and the notion of items from the sea being used as liminal agents on land (Westerdahl 2005: 11), the Kalgoorlie whale bone may be interpreted as a symbolic object. It is also evidence of maritime objects transported inland along long-range trade routes that linked coastal and inland societies.
Figure 42. Kalgoorlie whale bone vertebral epiphysis, outer surface (left) and inner surface (right). Photo: Douglas Elford/WA Museum (from Dortch 1988: 146).

Two engravings on a wave-washed granite rock in the inter-tidal zone at Barrier Anchorage are of a vulvar design unique to the region, and are thought to have a symbolic meaning. Their location suggests they were created prior to the present sea-level stabilisation (Smith 1994: 244-245).

Stone artefacts have been found on granite outcrops on islands in the Archipelago of the Recherche including Flinders Peak on Middle Island, with the highest elevation of all granite outcrops in the area. The top of Flinders Peak features a large pond-like gnamma hole filled with fresh, clear rainwater, and would have been an ideal place to camp and look out across the coastal plain before it was submerged by rising sea levels. As well as serving a strategic and social purpose, mountain peaks may have been cosmologically and spiritually significant, as suggested by archaeological evidence found on mountain peaks of Tasmania’s northern coast and islands (Cameron 2011: 21) and sacred places in Northern Australia with panoramic vistas (Taçon 1999: 37).

The environment of the Southern Ocean littoral geographically defined cultural and linguistic boundaries between Aboriginal groups. For example, the last of the coastal granite outcrops at Point Lorensen, north of Israelite Bay is named Gegelup. It is a
geological, cultural and environmental boundary marking the end of southwest granite country, the last of the white sandy bays that ‘look like a boomerang’ (‘kepa kurl’), the botanical range of *Nuytsia floribunda* (‘Christmas trees’) endemic to southwest Western Australia, and the 175mm May-October winter rainfall band marking both the boundary of the Southwest botanical region and territory of Wudjari people in the Esperance area and Ngatju people from the Western desert (Doc Reynolds, pers. comm., 5/1/2016) (Figure 43). The colonial naming of Israelite Bay is a toponymical feature of the landscape that refers to this cultural boundary marked by the appearance of the practice of male circumcision—a Western desert culture initiation ritual—by Ngadju in this area. From here the environment changes to feature the long sandy beaches and limestone cliffs of the Eucla Basin and Great Australian Bight.

![Gegelup](image-url)

**Figure 43.** Gegelup (Point Lorensen) is a coastal granite outcrop marking a geological, environmental and cultural boundary between Wudjari and Ngatjumaya people. (Ross Anderson/WA Museum).

This discussion of the Indigenous maritime landscape has provided some context for the cross-cultural contact that occurred during early exploration and sealing and whaling activities. The rest of this chapter will focus on the sealing and whaling maritime cultural landscape, commencing with a description of marine mammal
hunting grounds and islands within the broader seascape, as part of the background to the site-specific archaeological studies following.

**Marine mammal hunting grounds**

As well as the major pelagic whale fishery grounds described above, sealers and whalers targeted specific geographic locations with aggregations of marine mammals. These included whale migration routes, whale calving and nursing areas in protected bays, whale feeding grounds in proximity to deep sea canyons, and reefs and islands providing habitat for fur seals and sea lions. Hunting grounds are cognitive features of the maritime landscape/ seascape, although they may have associated archaeological remains as a consequence of hunting activity such as shipwrecks, whaling lookouts, processing sites or camps.

One example of a hunting ground with no archaeological remains associated with sealing yet located is the Eastern Group of the Archipelago of the Recherche, visited seasonally in summer. Sealers used the anchorage on Daw Island (then named Christmas Island) and described the area colloquially as ‘The Caterpillars’. This most likely refers to the chain of granite reefs extending north-west to south-east from Israelite Bay to Daw Island, including Five Mile Island, that continue to provide habitat for seals and sea lions, the description perhaps alluding to their humped, low-lying appearance covered with fur seals and sea lions.

**The South Seas and New Holland whaling grounds**

Chapter 3 described the environmental range and habitat of marine mammals targeted by sealers and whalers. Nineteenth century whalers understood well the seasonal movements of whales and locations of the best hunting grounds (Carpenter 1892) (Figure 44).
The Coast of New Holland Ground lay off the western coast of New Holland/ Western Australia, which broadly included southwest Western Australia, Shark Bay, the Dampier Archipelago, Kimberley coast and Timor Sea (Figure 45).

Tasmanian colonial whalers used the broad term ‘South Seas’ to incorporate four distinct whaling grounds where whales gathered at different times of the year. The whalers would fish one ground and then move to the next, fishing all four areas within a period of 12 months. The recognised grounds were:

**Western Grounds:** From Cape Leeuwin in the west to the western coast of Tasmania, including all of the Bight and south to 42 degrees south latitude (when whaling in the Bight the ships used Kangaroo Island as their base);

**Eastern Grounds:** From a line drawn east from Hobart to New Zealand and beyond the Chatham Islands and then south to the latitude of Macquarie Island and based on the Auckland Islands and the Solander Islands;

**Middle Grounds:** From a line drawn east from Hobart and east to the Three Kings Islands and New Zealand and north to Norfolk Island with French Rocks and Lord Howe Island as the centres;
Northern Grounds: From an east/west line drawn from Norfolk Island, north to the Coral Sea and east to the longitude of Auckland, New Zealand and taking in the Cumberland Shoals and Cole Bank. (Dickson 2006: 372, 560)

![Map showing locations of whaling grounds in the Australasian/Southeast Asian region (Sources: Dickson 2006: 372; Maury 1935).]

Known to the American, French, British and colonial Australian whalers who primarily fished them, these whaling grounds are key cognitive features in what has been termed the 19th-century ‘maritime industrial seascape’ (Raupp 2015: v).

**Islands on the Southern Ocean frontier**

Chapter 5 describes how ship and boat-based sealing gangs and/or individuals were dropped off on islands to harvest skins, storing them for later collection. In terms of the maritime cultural landscape and cross-cultural contact zone, islands on the Southern Ocean frontier were places for sealers where contact could be managed, and avoided, through their advantage of maritime knowledge and technology. The earliest sealers and settlers chose to live on uninhabited islands in Bass Strait, and off
New Holland’s south coasts. This allowed them to avoid interaction with non-seafaring mainland Indigenous groups, apart from occasional visits to exchange goods, women and dogs, or to conduct raids to obtain women. Sealers also marooned Aboriginal men, women and children on islands as another way of managing their contact, and access to women and children (Lockyer 1826). While many Aboriginal groups were friendly until provoked, uninhabited island bases allowed sealers to construct a lifestyle without fear of hostile interactions, or payback for crimes or atrocities committed on the mainland. In this way the various uninhabited archipelagos and islands off the south coast facilitated the occupation of liminal coastal spaces by sealers and whalers, and allowed them to establish informal camps and semi-permanent settlements at a time when the European population was still outnumbered by Aboriginal people.

An example of South Seas experience well known to mariners is the fear of attack by Indigenous people, including purported cannibalism. A number of European, American and colonial whaling and trading ship crews were attacked and killed while visiting Pacific Islands, and this fear was transferred to the vast unknown of Australian coast with its little understood Indigenous populations. In 1840 when the American whalers from the *Hamilton* visited Cape Arid and Middle Island they chose exposed Hawes Island to establish a camp and lookout, instead of the much better protection and equally advantageous lookout that would have been afforded by a mainland camp at Barrier Anchorage. This appears to be an example of adopting an avoidance strategy to manage the risk of unexpected or aggressive encounters.

Pelagic whalers used islands as ‘signposts’ to navigate along the edge of the continental shelf when targeting sperm whales. Southeast Island, Termination Island and Pollock’s Reef are the furthest outlying islands of the Archipelago of the Recherche that are commonly named in whale ship logbooks when describing whaleships’ cruises (Dickson 2006: 391, 394, 403, 410, 421, 544, 548).

**Toponymy**

Place names are important cognitive features of the maritime landscape/ seascape that indicate past human activities, although there may be no material remains. Westerdahl (1992: 6) describes the place name landscape as being ‘of the utmost importance in the survey phase of maritime archaeology’. This includes colloquial
names of places that are not indicated on official maps or gazetteers, but are well known to local residents and mariners. Toponymy can be commemorative, associative, incidental or descriptive (Duncan 2006: 39).

The contribution of sealers to exploration of Western Australia’s south coast (described in Chapter 6) is reflected in the toponymy of various islands in the Archipelago named by sealers including Figure of Eight Island, Dome Island, Hospital Island and Monkey Jacket Island. Other names have fallen into disuse, for example ‘The Caterpillars’ was a name used by sealers when referring to the Eastern Group of the Archipelago that is not used today.

Other place names in the Archipelago related to sealing and whaling are Hawes Hill and Hawes Island (after Captain Hawes of the American whaler Julian), Mississippi Bay and Rossiter Bay (after Captain Rossiter of the French whaler Mississippi), Belinda Bay and Belinda Beach on Middle Island (after the shipwreck Belinda), Thomas Fishery (after pioneer shore whaler John Thomas (Gibbs 1995: 449) and Duke of Orleans Bay (possibly after the French whaler Duc d’Orleans). Jimmy Newell’s Harbour and Butty’s Harbour are named after resident south coast sealers. The naming of Sealers Creek, a sheltered small boat anchorage and fresh water source on the east side of Cape Arid is a significant clue to likely past use. Places more recently colloquially named for the area’s sealing heritage are the surfing break ‘Black Jacks’ and large cave known as ‘Black Jack’s cave’ on the southeast coast of Middle Island, adding to the local folklore surrounding sealer John ‘Black Jack’ Anderson who lived on Middle Island in the 1830s (see Chapter 8).

**Anchorages**

Bays protected from prevailing seasonal winds, ocean swell and preferably with fresh water sources were vital for shipping as anchorages, and as seasonal bay whaling sites. Resident sealers favoured north or east-facing bays for settlement that offered the maximum protection from ocean swells and the prevailing winter south-westerlies, and summer south-easterlies, such as at Westernport Bay, Portland Bay and Port Fairy in Victoria, Antechamber Bay on Kangaroo Island, Belinda Bay on Middle Island, and Thistle Island in Spencer Gulf.

Sealers, whalers and coastal shipping used anchorages at Esperance Bay, Goose Island Bay/ Belinda Bay, Lucky Bay, Thistle Cove, Duke of Orleans Bay, Barrier
Anchorage, Thomas Fishery, Israelite Bay, Bellinger Island, Christmas Island/ Daw Island, Point Malcolm and Rossiter Bay. Anchorages are often associated with land-based activity such as collecting water/digging wells, cross-cultural contact, establishing gardens and landing animals ashore, firewood collecting, setting up camps, observatories and leaving inscriptions.

Some exposed anchorages were only suitable for small coastal vessels at certain times of the year, such as Tagon Bay and Taylor’s Boat Harbour, that were used as convenient by local pastoralists for loading and unloading supplies and stock.

**Trading and coastal shipping routes**

The Archipelago of the Recherche was situated along the coastal shipping route between King George Sound and Adelaide, and Launceston. During the sealing and whaling era the Archipelago was regularly visited by both King George Sound sealers and whalers, and by east coast whalers from Adelaide, Hobart and Launceston. During the sealing and whaling period knowledge of the Archipelago and its navigation routes, hazards and anchorages was expanded. The next major phases that brought shipping and trade were the development of pastoralism on the Esperance Plain, the establishment of Esperance township from the 1860-70s, construction of the overland telegraph between Esperance and Fowlers Bay in South Australia in the 1870s and the Kalgoorlie gold rushes in the 1890s which saw Esperance develop as an entrepôt for miners with supplies shipped to inland mining centres. Ships travelling along the coastal shipping route with passengers and supplies would stop over in small towns and sheltered anchorages to service pastoral stations, and Overland Telegraph stations including at Esperance, Thomas Fishery, Point Malcolm, Bellinger Island, Israelite Bay, Twilight Cove, Eucla and Fowlers Bay.

**Flora and fauna resource sites**

Other natural resources targeted by sealers, whalers and settlers included mutton birds (shearwaters), penguins, Cape Barren Geese, wallabies and kangaroos. Andrews (1948: 94) recorded whalers living on Middle Island being self-sufficient utilising a combination of imported stock, vegetable gardens and native fauna. The toponymy of Goose Island reflects it having once been a habitat for Cape Barren geese. Tammar wallabies lived, and were hunted in large numbers on Middle Island,
while penguins and mutton birds were present on a number of islands off the south coast and targeted for their eggs, feathers and meat (Dickson 2006: 617). Andrews described Ben Island as ‘the mutton bird incubator of the Bight’. Other resources used by early settlers in the area were the ‘wool’ from *Macrozamia* palms used as stuffing for pillows and mattresses, and they made a tasty mixture of Cape Barren gosling oil with mutton and beef dripping they preferred over butter (ibid).

**Stockpile/ cache sites**

Stockpiling skins was standard practice in the sealing industry where strategies of boat or ship-based sealing were utilised. Resident sealers also stockpiled skins until they could trade with vessels on an opportunistic or prearranged basis. In 1826 Major Lockyer (1826: 38) reported a sealers storage cache of 700 skins on an unnamed island near Mondrain Island opposite Thistle Cove and Lucky Bay, the description of which matches Ram Island. The Boxer Island sealer’s cave (see Chapter 10) also had a cache of skins in situ, awaiting collection at some future date. The increased humidity inside caves was beneficial to stop skins drying out and remaining pliable.

In 1846 Roderick Cowden and John Gamble were whaling and tonguing east of Albany and collected a quantity of whalebone which they left on ‘Offshore Observatory Island’. Solomon Aspinall removed the bone, leading Cowden and Gamble to make a formal complaint to the Albany Magistrate and seek payment in restitution (Dickson 2006: 296).

**Sealers’ camps**

During an oral interview on country for this research, Traditional Owner Gail Selby-Yorkshire said that sealers used every part of the coast and ‘they were everywhere’. Camps on the mainland in the Esperance area were used by both sealers and Aboriginal people, including a camp at Twilight Cove (G. Selby-Yorkshire, 26 February 2012, pers. comm.). Other sealers’ camps are recorded at Middle Island, Israelite Bay and are likely to have been situated on Woody Island, Mondrain Island, Sandy Hook Island and Sealers Creek. Boxer Island features a cave with archaeological evidence of at least one sealer having camped and processed sea lion skins around the late 19th-early 20th centuries (see Chapter 10). As sealers’ camps
were seasonal and ephemeral there is generally little or no archaeological evidence remaining of their presence.

**Colonial shore whaling stations**

In the 1860s and 1870s there was a resurgence of whaling activity centred on ‘the east coast’, including Middle Island (1862-1879), Barrier Anchorage (1871-1879) and Thomas Fishery (1862-1879), related to late season whaling, a practice that appears to be unique to Western Australia (Gibbs 1995: 452). These east coast stations were the last operational colonial shore whaling stations in Western Australia (Gibbs 1995: 446).

**Middle Island**

There were reports of a ‘newly formed whaling station’ established on Middle Island in 1845 (CC 23/7/1845: 14a-b; LA 17/7/1845: 14) probably by Tasmanian or South Australian-based whalers (Andrews 1959), which explains the lack of any references to a whaling station in Western Australian colonial government archives or newspapers during this early period. A colonial shore whaling station is recorded to have been established on Middle Island in 1862 by John Thomas, manager of Cheyne Beach whaling station, who probably used the area for late season whaling until 1879 (McIlroy 1986; Gibbs 1994: 86). Chapter 8 discusses the history and archaeology of Middle Island in further detail, with a timeline provided in Appendix B.

**Barrier Anchorage, Cape Arid**

A tryworks and whalers’ lookout at Barrier Anchorage were first surveyed by McIlroy (1987) and subsequently Pearson (1988) and Gibbs (1995). Thomas Sherratt operated a late season colonial shore whaling station at Barrier Anchorage in 1871, that probably continued up to 1879 (Gibbs 1995: 446-449). Reported archaeological remains include the base of a stone tryworks situated on the vegetation line above a smooth granite flensing platform at the western end of the beach, and a whalers’ lookout at the top of the headland (ibid), that were revisited in 2011 in the course of this research (Figure 46, Figure 47). Both structures are made using locally sourced granite boulders, with no evidence of mortar used in their construction.
The tryworks appears to have a number of stone lines indicating that more than one trypot was used, and has been disturbed by fossicking activities.

Systematic visual, pedestrian searches were made of the Barrier Anchorage area including the headland surrounding the lookout, in the sand dune system behind the western end of the beach and to the next cape south (west Cape Arid) to search for other reported structures and potential Aboriginal sites associated with historic-era
contact. A number of new sites were recorded including shell and hoop iron scatters, a lookout at west Cape Arid, a stone cairn, a freshwater soak, European and Aboriginal artefacts (Figure 48) and lizard traps, and their locations mapped (Figure 49, Error! Reference source not found.).

**Figure 48.** Blue and white ceramic fragment and a chert proximal flake fragment at Barrier Anchorage in 2011 (Ross Anderson/WA Museum).

The lookout on the 40-metre high Barrier Anchorage headland has a 360 degree view-shed, though views to the west are blocked by Cape Arid. The lookout structure is constructed of loose granite slabs in a rough oval shape, and measures 4.40 x 3.0m. It has two distinct walls separated by two openings, the western opening being larger. As at 2011, the maximum wall height is 640mm, though the walls have collapsed with rubble both inside and outside the walls. There is a light covering of earth and vegetation on the floor though the deposit is shallow.

The width of the doorway on the eastern side is 70cm and another doorway or opening on the north-west side of the structure measured 2.5m across. The walls of the lookout have reportedly collapsed since the 1960s, when they were an estimated 1.60m in height. The lookout is partially obscured by vegetation, including *Hakea culvata*. No artefacts were observed in the near vicinity of the lookout, though the site has been fossicked with artefacts including broken clay pipes and bottle fragments removed over the years. A corroded iron fragment with a rivet from a cask hoop iron was found lying loose on the granite slope approximately 25m west of the lookout.
Figure 49. GIS map of Barrier Anchorage area archaeological sites.

Figure 50 GIS map of Barrier Anchorage whaling station sites
Previously unrecorded features were documented including a pile of loosely stacked granite rocks further down the Barrier Headland granite slope approximately 60m to the north-west of the lookout that may have been used as a fireplace (Figure 51). Two lizard traps were located on the headland overlooking Barrier Anchorage, that are possibly related to historic-era activities (see ‘Aboriginal sites’ below for further discussion of these features).

![Figure 51. A stone feature north, and downslope of Barrier Anchorage lookout in 2011, possibly used as a fireplace (Ross Anderson/WA Museum).](image-url)

Local fisherman John Cahill advised that he did not observe any other historic stone structures or features when he cleared the land to build his shack, and the tryworks were the only other structure he knew of on the mainland (J. Cahill, pers.comm., 2011). A whale jawbone lies in the garden area of the shack.

An artistic impression of Barrier Anchorage in 1870 shows a double tryworks, a timber and bark oil shed, tents for accommodation for the headsman and two boats’ crews just behind the beach foredune, possible use of sheerlegs set up close to the natural smooth granite flensing platform and the stone lookout on the headland with a flagpole (}
Figure 52). Given the low level of infrastructure utilised at late season stations, sheer legs may not have been used, with whales simply tied to the rocks for cutting in as occurred at Taieri Island in New Zealand (Coutts 1976: 294).

Figure 52. Author’s impression of Barrier Anchorage shore whaling station in 1870 (Ross Anderson).

A significant Aboriginal site find was a permanent freshwater soak lined with reeds located one kilometre east of Barrier Anchorage behind the sand dunes. Aboriginal artefacts are present, including chert flakes and a grindstone that appears to be a manuport as it is not made of local stone. The perimeter of the lake was metal detected and visually surveyed but no signs of any metal, glass or ceramic artefacts were found. Its proximity to Barrier Anchorage is significant for any further research into the possibility of culture contact between whalers and Aboriginal groups that may have gathered there to camp and feast on whale meat.

Another whalers’ lookout at Cape Arid west of Barrier Anchorage that had not previously been archaeologically recorded was visited and surveyed in the course of this research (Figure 53, Figure 54, Figure 55).
Figure 53. Cape Arid west whalers’ lookout in 2011, view northwest with tors in background (Ross Anderson/WA Museum).

It has a view-shed from due north around to 100 degrees east, where views are obscured by the Cape Arid monolith. Built of stacked flat granite slabs, the lookout has roughly oval dimensions of 3.15m x 1.70m, with a maximum wall height of 1.05m. The width of the doorway on the southern side of the structure is 1.20m. The western wall of the structure is formed by the edge of a large onion-weathered slab of granite, to which the whalers have increased the wall height by stacking loose granite slabs both horizontally and vertically. The floor of the lookout is bare rock with no potential for buried archaeological deposits. Clay pipe fragments were originally found at this site, but were reportedly removed by fossickers (J. Cahill, pers. comm., 2011). Crevices between the rocks were checked but no artefacts were found.
Figure 54. Cape Arid west whalers’ lookout in 2011, view west with Barrier Anchorage in background (Ross Anderson/WA Museum).

Figure 55. Cape Arid west whalers lookout in 2011, east elevation (Ross Anderson/WA Museum).
A small concentration of eroded limpet shells (*Cellana tramoserica*) transported from the coast was found next to a formation of granite tors immediately north of the lookout (Figure 56), suggesting that whalers on lookout duty were foraging to supplement a diet of provisions. While not conclusive evidence in itself, Aboriginal whalers are known to have worked at Cape Arid, and the transport of marine molluscs is consistent with traditional south coast Aboriginal food gathering and consumption practices (Smith 1999: 22).

This lookout site is interpreted as having likely to have been used in conjunction with the Barrier Anchorage headland lookout, as their combined view-shed provides a maximum view from west to east, and both are within visual signalling distance from Barrier Anchorage.

**Thomas Fishery, Cape Arid**

Thomas Fishery was used as a shore whaling station from around 1862 to 1879 (Gibbs 1996: 94). According to oral history from the late Mrs Amy Croker of Hill Springs Station at Cape Arid, Thomas Fishery is supposed to have been named after Albany whaler Thomas Sherratt, recorded to have been whaling ‘at Cape Arid’ in the
1860s. Though no precise location is given, it is reasonable to believe he used this location, if only part of the time. There was a resurgence in whaling activity on the east coast during the 1870s, and possibly Sherratt, or men from Sherratt’s crews, used Thomas Fishery at this time (Gibbs 1995: 452). McIlroy reported that ‘the only structures surviving in the area, were apparently erected by local fishermen some years back’ (McIlroy 1987: 55).

The sheltered bay at Thomas Fishery was also used by ships to transport wool and produce from local farms including Hill Springs Station, Lynburn Station and Gabtoobitch Stations. An abandoned cast iron whaling trypot was removed to Moonginettee/ Lynburn Station in the early 20th century (Figure 57). Whale bones reportedly cover the seafloor of the bay (Gibbs 1995: 452).

![An abandoned whaling try pot from Thomas Fishery at Moonginettee/ Lynburn Station in 2011 (Ross Anderson/WA Museum).](image)

A cement and rock hut foundation base measuring 2.4 x 2.4m, and a path leading to a rock-lined soak well in a small creek are located at the back of the Thomas Fishery campsite, though these are 20th-century fishing camp structures. Whaling-era
structures including a tryworks and domestic fireplace have been reported, but not re-located due to thick vegetation obscuring the domestic habitation site, and possible storm damage to the foredune that may have removed or buried evidence of the tryworks (Gibbs 1995: 452). A modern wooden fishing boat wreck lies in the intertidal zone on the beach in the south-western corner of the bay.

**Bay whaling sites**

**Rossiter Bay, Mississippi (1840)**

Under the command of its English Captain Thomas Rossiter, the 386-ton French whaler *Mississippi* from the port of Le Havre was the first French whaler to visit the New Zealand bay whaling grounds at Cloudy Bay on the south island of New Zealand in 1836 (Richards 1995: 8-9), and the first foreign vessel to visit Port Lincoln, South Australia following its settlement (*Reg 4/7/1925*: 10). With the New Zealand grounds increasingly congested, on his tenth whaling voyage between 1838 and 1840 Rossiter pioneered new whaling grounds for French whaleships on the southern coast of Australia including the Archipelago of the Recherche (Richards 1995: 12-13).

Departing France on 13 December 1840 on his eleventh French whaling voyage, Rossiter headed directly for the Archipelago of the Recherche where he anchored in an unnamed bay sheltered from the prevailing winter westerlies and whaled until June 1841 (Richards 1995: 13-14). The crew put pigs, sheep and tortoises on an island in the bay, established a small garden with potatoes and peas in a clearing next to a creek on the mainland, and went hunting for game in the freshwater lake behind Thistle Cove. It was fortunate *Mississippi* arrived just three weeks before the explorer Edward John Eyre and his Nyoongar guide and companion Wylie would have reached the end of their food and stamina reserves, during their crossing of the Great Australian Bight. The *Mississippi*’s surgeon gave the explorers a health check; they had new shoes made for their horses out of cask hoop iron, and were fed fresh meat and vegetables to restore their strength. After twelve days recuperating aboard the ship, Eyre and Wylie were able to complete the remaining 500km of their trek. Rossiter provided Eyre and Wylie with supplies, and on rowing the men ashore gave them letters to post in Albany and six bottles of cognac.
It is likely that Mississippi’s visit would be unknown were it not for Eyre and Wylie’s fortuitous rescue, and Eyre’s naming of the location as Rossiter Bay. The site of Rossiter Bay today has historical significance for the involvement of French bay whalers in the Archipelago of the Recherche, and the events surrounding the rescue of Eyre and Wylie allowing them to successfully complete their epic overland trek.

A memorial plaque erected by the Esperance Historical Society to commemorate the rescue event is found part way up the walking trail at the granite rocks at the southwestern end of the beach. An inspection of the area to search for any remains of the garden or other associated sites found that any remaining evidence is likely to have been destroyed or obscured as a result of disturbance caused by the modern camping and picnic area car park, bird hide, walking trails, and 100% vegetation coverage.

**Hawes Island, Barrier Anchorage, Middle Island, Hamilton and Julian (1840)**

On 30 May the American whale ships *Hamilton* (359 tons, Bridgeport, Captain Brown) and *Julian* (New Bedford, Captain Hawes) sailed from King George Sound intending to go bay whaling in the Archipelago of the Recherche. Captain Hawes had visited the area previously at least twice, and a chart made by him in 1840 inserted in *Hamilton*’s logbook depicts two whaling lookout stations, described as the ‘North lookout’ on Cape Arid in the vicinity of Thomas Fishery, and ‘Hawes Island Lookout’ in Barrier Anchorage (PMB 687) ([Figure 58](#), [Figure 59](#)).

Between 7 June and 20 September 1840 both ships anchored in Goose Island Bay, Middle Island. Between them their crews struck a total of 27 whales, though recovering only 16 whales to obtain 1200 barrels of black oil (Dickson 2007: 121; PMB 687). Hawes Island is presently an unnamed island in Barrier Anchorage, while Hawes Hill on the mainland further west is possibly also named after Captain Hawes.

On 29 June three boats and crews from *Hamilton* went to Hawes Island to set up a camp ‘loaded with various articles for a tent’ (PMB 687) and this camp was occupied until 14 September, though probably only one or two boat crews stayed on the island. Additionally Captain Brown of the *Hamilton* camped on Hawes Island for a period of three weeks, during which time he went ashore on Cape Arid to explore
the mainland (ibid). The logbook entry for 14 September states that ‘At daylight struck the tents at Hawes Island and all came aboard’ (ibid).

Figure 58. Captain Hawes’ sketch map of Middle Island and Cape Arid area inserted in the logbook of the American whaleship Hamilton (PMB 687).

There is no other mention of the ‘North Lookout’ in the logbook besides it being marked on Captain Hawes’ chart. An attempt was made to geo-reference Captain Hawes’ chart in a GIS to obtain an approximate starting point to search for the North lookout, though this proved unsuccessful as being a sketch plan it did not correlate closely enough to an accurate chart.
Figure 59. Detail of Captain Hawes’ chart showing ‘Hawes Island Lookout’ in Barrier Anchorage and ‘North Lookout’ on Cape Arid in the vicinity of Thomas Fishery (PMB 687).

A 2011 inspection of Cape Arid in the hills behind Thomas Fishery—the closest landing place to high points in this area matching with the rough chart location—did not locate any substantial structures apart from one stone alignment that could possibly have been a lookout, for instance for anchoring the edges of a tent. The description of the North lookout probably refers to it being directly north and visible from the Julian and Hamilton anchored in Goose Island Bay.

Communication with prearranged flag signals would have been established between the lookouts, whaleboats and ships for events such as ‘whales sighted’, ‘dead whale’ and ‘assistance required’, for example sending the ships’ boats to assist other crews to tow a whale. Hamilton’s logbook describes how any whales caught by the Hawes Island boat crews were towed back to the ships in Goose Island Bay with the assistance of the ships’ boats, and processed on the ship’s tryworks. This confirms that despite the proximity of Hawes Island to Barrier Anchorage, the Barrier Anchorage tryworks are associated with later colonial shore whaling activities from around 1871-79 (Gibbs 1994: 90).
On 11 February 2013 a survey team led by the author visited Hawes Island and located the stone lookout structure reported by fisherman John Cahill at the high point of the island, constructed in the natural shelter of exposed granite tors forming its western side (Figure 60).

Figure 60. Detail of Hawes Island lookout view northwest with Barrier Anchorage in the background (Nicolas Bigourdan/WA Museum).

The overall dimensions of the structure were a maximum length of 4.40m and width of 2.40m. The floor consisted of earth and tussock grass with one recently deposited Cape Barren goose leg bone present. The walls were built of roughly stacked granite slabs and boulders with a maximum height of 90cm, though the southern and western walls had collapsed both into, and outside of the structure. A doorway was present on the north-eastern side. The maximum height of the western wall from the floor level was 1.30 m. The view-shed included all points east but the view to Middle Island anchorage (Goose Island Bay) is cut off by the western end of Cape Arid, although Goose Island and Flinders Peak are visible. The rest of the island consists of steeply sloping granite sheet on the southern, western and eastern sides, with vegetation among rocks along the top of the northern side, and northern slopes (Figure 61).
Figure 61. Map of Hawes Island archaeological features.

There are no sandy beaches, and the only accessible landing point on the steeply sided granite dome is on the north side consisting of a shallow, rocky lagoon. The whaleboat crews recorded having difficulties with the whaleboat moorings, and the whaleboats suffered damage when blown against the rocks (PMB 687).

It is interesting to speculate why the whalers chose to camp on Hawes Island which offered no advantage to a mainland camp, especially as Barrier Anchorage has a sandy beach providing better access and protection for small boats. Fear of attack or engagement with Aboriginal people on the mainland is the most probable explanation.

Two fragments of butchered sheep bone were found (Figure 62), along with corroded hoop iron fragments indicating the crews were probably living off salted cask provisions.
Figure 62. Butchered sheep bones are likely evidence of provisions consumed by the Hamilton’s crew camped on Hawes Island in 1840 (Ross Anderson/WA Museum).

When 46 years later the American whaleship John D. Winthrop visited Barrier Anchorage to go bay whaling for right whales between 20 September and 25 October 1886, their logbook recorded that the ‘Captain and Mate went ashore on Hawes Island and on mainland in the morning and found a place to lookout for right whales’ (Dickson 2006: 617; PMB 811), indicating their prior knowledge of the place name, and possible reuse of Hamilton’s lookout structure on Hawes Island. They also shot penguins and geese, gathered mutton birds and named the anchorage ‘John D. Winthrop Harbour’ (ibid).

**Point Malcolm, Julian (1840)**

Captain Hawes of the New Bedford whaler Julian accompanied Hamilton during their bay whaling visit to the Archipelago of the Recherche in 1840. Julian explored further down the coast, setting up a bay whaling camp at Point Malcolm (Dickson 2006: 121, 167).
Prior to arriving at Rossiter Bay, on 19 May 1841, Eyre and Wylie reached Point Malcolm after a strenuous overland journey crossing the Great Australian Bight from Fowlers Bay, South Australia. Eyre recorded that:

Anxious if possible to give our horses a day or two's rest, at such a grassy place, and especially as the many kangaroos we saw, gave us hope of obtaining food for ourselves also, I twice dug for water, but did not find any of such quality as we could use. I was compelled therefore to turn in among the sand-hills of Point Malcolm, where I found excellent water at three and a half feet, and halted for the day, after a stage of five miles. Unfortunately we were now beyond all grass, and had to send the horses by a long and difficult road to it, over steep sandy ridges, densely covered by scrub. Upon halting, one of our horses lay down, appearing to be very ill, for two hours I could not get him to rise, and was sadly afraid he would die, which would have been a serious loss to us, for he was the strongest one we had left. A little inside Point Malcolm, I found traces of Europeans who had slept on shore near the beach, and upon one of the tea-trees, I found cut "Ship Julian, 1840," "Haws, 1840," "C. W." and some few other letters, which I did not copy. The forenoon continued very wild and stormy, with occasional showers of rain, and as we could get neither firewood nor shelter at our camp, and the sand edded around us in showers, we were very miserable. (Eyre 1845)

Eyre’s and Wylie’s discovery of the remains of a whalers’ campsite and carved tree at Point Malcolm is thus directly related to the Julian’s bay whaling visit.

On 10 February 2013 a survey was made at Point Malcolm to search for any Aboriginal or historical archaeological sites, including the Julian’s camp and carved tree. The most likely place for the Julian’s camp on the protected northern shore of Point Malcolm is among an established stand of Melaleuca trees. The area is still used today as a bush camp site, with cleared pathways, campsites, an access road, and recent cut marks on trees that had been used for firewood. No evidence of a carved tree was found, and a group of campers who use the area regularly said they had not noticed any carved trees in the vicinity.
Whaling lookouts

Whaling lookouts on headlands were necessary for shore and bay whalers when they were based within protected bays and anchorages. They were usually situated on high points to maximise the range of view over the ocean to spot whales, with a clear line of sight to the whaling base to signal (usually with flags) that whales had been spotted, whereupon crews would launch their whaleboats to commence the hunt.

Figure 63. Map showing clustering of shore and bay whaling lookouts overlooking the natural pinch point of Arid Strait, created by Cape Arid and Middle Island.

Lookouts were thus strategically positioned within the landscape to maximise the chances of resource harvesting. From an environmental and geographic perspective, and as evidenced by the dense concentration of lookouts found nowhere else in the Archipelago of the Recherche, the shallow 6.5 km width of Arid Strait between Cape Arid and Goose Island/ Middle Island was a natural ‘pinch point’ along right and humpback whales’ coastal migratory routes where they could be more easily ambushed and hunted (Figure 63).
Goose Island

Goose Island is a smaller island lying off the northern coast of Middle Island, which partially shelters the Goose Island Bay (also called Belinda Bay) anchorage from north-westerly winds. Goose Island has seven historic-era archaeological stone features (Figure 64) that appear to have functioned as lookouts, shelters and structures for signalling purposes for both shore-based and bay whaling operations.

![Figure 64. Map of archaeological sites on Goose Island.](image)

Aboriginal artefacts (quartz flakes) are also present on the island that are most likely to be related to prehistoric Aboriginal activities. On one site inspection in 2011, two large black rabbits were observed that are likely to be descended from rabbits originally left there as a food source by sealers and whalers.
Crews from the Middle Island whaling station are recorded to have set up a signal flagpoles and lookouts on both Hummock and Goose Island to signal to the whaling ships anchored in Belinda Bay when whales were sighted. Gibbs considers that stone lookouts on Goose Island and near Barrier Anchorage might have been constructed by American or other foreign whalers to ‘enhance their performance’ by extending the range of their lookouts (Gibbs 1995: 455). This is certainly the case for the *Hamilton* that bay whaled at Middle Island and Cape Arid in 1840 (see ‘Hawes Island’ above).
Figure 66. Goose Island stone arrangement (GI/F001) possibly a collapsed windbreak. Cairn (GI/F002) is visible in background, view west (Ross Anderson/WA Museum).

Figure 67. Goose Island walled lookout (GI/F004) view east over Goose Island Bay (Ross Anderson/WA Museum).
Cairns and survey marks

Stone cairns have been located at Flinders Peak on Middle Island, on Goose Island and at Barrier Anchorage (Figure 69). Some of these appear to have been originally constructed as hydrographic survey marks in order to triangulate a ship’s position while undertaking detailed coastal surveys. Between 1897 and 1901 Commander Coombes conducted a detailed survey of the Archipelago of the Recherche the naval survey vessel HMS Penguin using Duke of Orleans Bay as a base, and ‘many of her trig stations are still to be seen on the headlands and high peaks throughout the Archipelago’ Andrews (1948: 97-98).

The naval charting of colonial waters was related to ‘power, territoriality and trade’ and charting and control of waters with their marine resources was as important to delineating a colony’s jurisdiction as surveying and mapping activities on the land (Forbes and Hercock 2007: 31). This relatively late official charting of the Archipelago of the Recherche may be interpreted as a near-final stage in establishing further formal control over one of the last remaining uncharted maritime frontier areas in Australia. The final chapter of surveying the Archipelago remains to be
written as much of it remains uncharted today, with many submerged navigational hazards.

Figure 69. Stone cairn overlooking entrance channel to Barrier Anchorage, possibly a hydrographic survey mark, view southeast (Ross Anderson/WA Museum).

Shipwrecks and underwater cultural heritage (UCH) sites

Shipwreck hulls and their associated material culture can provide fine-grained and precisely-dated archaeological information about past society, economics, cultural transmission and technology. Contemporary accounts of shipwreck survivor stories that involve Aboriginal people also provide significant information on cross-cultural contact events, and the presence of Aboriginal people at precise locations and points in time (McCarthy 2008). The shipwrecks of *Mountaineer* (1835) and the unknown ‘Eyre wreck’ (believed to be an early sealer or whaler) described below are the earliest and most significant shipwreck survivor and contact stories from Western Australia’s south coast. Other types of underwater cultural heritage providing evidence of past human activity include submerged port structures, lost anchors, moorings, archaeological deposits and prehistoric sites. It is a testament to the skills of sealers and whalers that more vessels were not wrecked in the Archipelago of the
Recherche with its numerous hazards and exposed anchorages, though there were some close calls such as when on 27 August 1857 the American whaler *Congress* came within a ship’s length of running onto Pollock Reef (Dickson 2006: 421).

**Belinda (1824), Middle Island**

The wooden merchant and sealing brig *Belinda* is the earliest shipwreck associated with sealing on Western Australia’s south coast, and the best preserved sealing shipwreck yet located in Australia. A full account of the history and archaeology of the shipwreck of *Belinda* is provided in Chapter 9, with a functional artefact analysis provided in Appendix C.

**Mountaineer (1835)**

*Mountaineer* (1835) was a 23-ton wooden cutter with dimensions 32’2” x 12’10” x 4’8” (9.62 x 3.9 x 1.31 m) built in Launceston, Tasmania in 1832 (Parsons 1980: 73). It was owned by Mungo Somerville and captained by Charles Biamson (Nicholson 1985: 16) and John William Andrews, who used it for trading between remote settlements, sealing camps and whaling stations along Australia’s southern coast between Albany and Launceston including Doubtful Island Bay, Middle Island, Flinders Island, Kangaroo Island, Adelaide and Portland Bay (Nicholson 1985: 16; *PGWAJ* 3/10/1835: 575; Dickson 2006: 61).

While on a voyage from Albany to Adelaide with passengers on 24 March 1835 *Mountaineer* was sheltering from a gale at Thistle Cove, Cape Le Grande when it was blown ashore (*PGWAJ* 3/10/1835: 575). As all of the crew and passengers including two women survived, it is likely *Mountaineer* was wrecked in the inter-tidal zone on the western sandy beach at Thistle Cove. After ten days camped at Thistle Cove, the survivors made their way to Middle Island where they camped with John ‘Black Jack’ Anderson and his gang, and the resulting historical media accounts and official depositions at Albany Courthouse are the main historical sources that provide an insight into maritime activities in the Archipelago of the Recherche during this period (*PGWAJ* 3/10/1835: 575; Albany Resident Magistrate to Colonial Secretary’s Office, 10 August 1835, SROWA, Colonial Secretary’s Records, Volume 42, Item 173; Albany Courthouse declarations 1835 Anderson and Winterbourne trial). Anderson subsequently marooned James Newell and James Manning at Cape Arid, the men surviving a two month trek to the nearest mainland
European settlement at Doubtful Island Bay with the assistance of Aboriginal people (*PGW AJ* 3/10/1835: 575).

In March 1836 Anderson stated to the Resident Magistrate Richard Spencer in Albany that he had ‘fished up from the wreck of the *Mountaineer*’ an anchor and cable subsequently taken from him by the sealers John William Andrews and Charles Biamson during his absence from Middle Island (Albany Courthouse declarations, SROWA 18/3/1836). On 17 March 1836 Anderson landed on Michaelmas Island in King George Sound and took a bag with 58 pounds of flour, two saucepans, an iron pot and ‘several other articles’ of his property, along with two native women, one from Middle Island and the other from Doubtful Island, taken from him by Andrews. Anderson’s deposition describes the opportunistic shipwreck salvage and petty theft of property that seems to have been commonplace among sealers.

As part of this research a reported 'iron slag' feature listed on the Department of Maritime Archaeology’s shipwreck database as ‘Thistle Cove Unidentified’ site located at the western end of Thistle Cove beach above the high tide mark was investigated in 2011 using a Minelab SD2200v2 metal detector with 11” Double D coil, and partially excavated. The feature had no metal content, and is identified as a naturally occurring conglomerate rock that had eroded out of the cliff face and rolled onto the beach. No other ferrous metal material was detected along the western end of Thistle Cove beach during the survey. Snorkel diving searches were conducted on dark patches of seaweed in the wave zone along Thistle Cove beach to see if the weed was attached to any substrate such as timber, or rock ballast. However, all of the weed patches were found to be clumps of floating weed caught in tidal gutters. Plans for a boat-based magnetometer survey of Thistle Cove to search for the site in shallow water have not occurred at the time of writing. It is predicted that any remains of *Mountaineer* are buried in sand, most likely in the inter-tidal zone or shallow water just offshore.

**Tagon Bay Unidentified**

On 11 May 1989 Department of Environment and Conservation staff reported a wooden wreck exposed following a storm in the inter-tidal zone at the western end of Tagon Bay, near Tagon Point (Figure 70).
Figure 70. Map showing the approximate location of the Tagon Bay Unidentified wreck site.

The wreck was described as the ribs of a wooden hull exposed by sand erosion as a result of strong south-easterly storms, with approximate dimensions of 40 feet (12.2m) length and 10 feet (3.05m) breadth. WA Museum maritime archaeologist Graeme Henderson inspected the site, by which time the wreck had unfortunately become reburied under about two metres of sand, though a water probe survey recovered some fragments of wood (WA Museum Wreck Inspection Report, 1989, Tagon Bay Unidentified).

As part of this research in 22 February 2012 a search was made of Tagon Beach and its foredune area from the 4WD access track at the east end of Tagon Beach to the granite outcrop at the western end of the beach, to search for any evidence of a shipwreck or any shipwreck survivors’ camps. No historic or prehistoric artefacts were found during the search, though a fresh water creek lined with bull rushes and
copious water was located behind the dunes against the granite at the western end of the beach. Tagon Bay is also marked as Tagon Harbour on some historic maps and charts, indicating past maritime use that likely extended from the sealing through to pastoral settlement phases.

The western corner of Tagon Bay provides shelter for small vessels in south-west to north-westerly winds. However, it is exposed to southerly and south-easterly winds, and it is likely that beach sand eroded during strong south or south-easterly storms is quickly replaced following establishment of the normal coastal sediment transport regime. Evidence of partially buried DEC signage in the sand dunes shows that the foredune and beach are currently accreting sand, though there are also some deflated areas and blow-outs behind the fore-dune.

An 1850 newspaper report of the wreck of a sealing vessel on the mainland close to Middle Island may be a clue to the identity of the Tagon Bay Unidentified wreck:

> From King George's Sound we hear of the death, by drowning, of two men, from the upsetting of a boat near the beach abreast of Middle Island. They formed two of a party of sealers, and had succeeded in obtaining a very fair proportion of skins and oil, most of which, we regret to hear, has been lost. The survivors, three in number, walked from the spot where the accident occurred to Cheyne's Beach, at which place they arrived in a wretched condition. One of the victims was a man named Sims, who for some time ran a small boat between Fremantle and Bunbury. (Inq 17/4/1850: 3)

It is notable the surviving sealers were forced to walk to Cheynes Beach, as it might be assumed at this time during the summer sealing season there were likely to be other sealers working, and coastal shipping visiting the Middle Island anchorage. This account indicates how sporadic and small-scale sealing and shipping, activity was in the Archipelago at this time. It is also of interest for its description of sealers collecting seal oil as well as skins, which may be an indication that most of the fur seal population had been hunted and resources were being maximised.

*Emily Downing whaleboat (1882)*

On 30 September 1886 crew from the American whaler *John D. Winthrop* landed at Barrier Anchorage, Cape Arid and reported finding a wrecked whaleboat ashore
At the time they identified this whaleboat as being from the Hobart-based colonial whaler ‘Emily Dowling’ [sic—Emily Downing], which lost a whaleboat and crew at sea while fastened to a whale off Termination Island. It is unknown whether the whaleboat’s crew of five Tasmanian men survived and managed to land ashore, or perished at sea.

**Mary Ann (1868), Bellinger Island**

Originally built as a whaling vessel for the Northwest/Dampier Archipelago, Mary Ann was transporting supplies for construction of the Overland Telegraph when it wrecked in shallow water on the rocky north coast of Bellinger Island. The site has previously been inspected though being a wooden wreck on an exposed, rocky shore in shallow water little remains, and was not investigated as part of this study.

**Whalebone deposits**

Gibbs (1995: 452) recorded information from Hill Springs resident Mrs Amy Croker that at Thomas Fishery, Cape Arid ‘modern fishermen had told her that the floor of the bay was ‘covered in whalebones’ and that these were frequently washed up in on the beach. Given the concentration of whalebone in this location, it is likely that they are associated with the operation of the whaling station. Similar concentrations of a ‘reef’ of whalebone underwater have been anecdotally reported by divers at the Pakenham whaling station at Port Gregory north of Geraldton and at Frenchman Bay whaling station at King George Sound.

**Shipwreck survivor and salvage camps**

Previous research on shipwreck survivor camps (Robinson 1988; Gibbs 2003; Nash 2005; Ford 2006) is relevant to interpreting any potential archaeological remains for shipwrecks in the Archipelago of the Recherche. Gibbs (2003) used the Batavia (1629) survivors’ camp to provide a theoretical framework for investigating crisis response based on existing psychological models of human behaviour, archaeological models of shipwreck and survivor camp site formation processes, and their corresponding archaeological signatures.

Shipwreck survivor camps are recorded for the sealing brig Belinda (1824) on Middle Island and sealing and trading cutter Mountaineer (1835) at Thistle Cove. As
part of this research, searches were conducted for their survivors’ camps, though as yet no evidence has been located.

Primary and secondary salvage of shipwrecks (sometimes occurring for many years later) impacts on the shipwreck sites themselves, and may create additional associated sites such as salvage infrastructure and camps. The wreck of SS *Penguin* (1920) at Middle Island led to both primary and secondary salvage activities, with some possible evidence described.

**Belinda (1824) survivor camp, Middle Island**

As *Belinda*’s crew waited up to five months on Middle Island before being rescued by the crew of *Nereus*, some evidence of their occupation might be expected, if it has not been destroyed or obscured by later activities. As *Belinda* was prepared for a self-contained voyage and was in easily accessible shallow waters, many items useful to the survivors including surviving stores, equipment and personal possessions were likely to have been salvaged, used and potentially lost or abandoned in a survivors’ camp. Chapter 9 discusses possible locations for *Belinda* survivors’ camp(s) on Middle Island in further detail.

**Mountaineer (1835) survivor camp, Thistle Cove**

The survivors of the *Mountaineer* spent ten days sheltering at Thistle Cove before departing for Middle Island, during which time they also encountered local Aboriginal people. They are likely to have left little trace of their camp, and nothing has been so far located or reported.

**SS *Penguin* (1920) salvage camp, Middle Island**

The shipwreck of SS *Penguin* in 1920 led to two major episodes of salvage, including construction of a salvage camp on Middle Island that appear to have significantly impacted or added to the archaeological deposits on Middle Island (see Chapter 8 and Appendix B).

**Alexander Bay modified rock shelter**

The Esperance Historical Society had previously provided the WA Museum with a photograph of a unique natural rock shelter on a granite hill at Alexander Bay, which had been modified and built up with granite boulders and slabs. Its function and
period of use is not known, though it is in close proximity to the wreck of the *Batoe Bassie* (1880), and may have been used as a shipwreck survivors shelter and/or lookout. Ian Hay and John Cahill provided information that this shelter and some shepherds’ huts at Cape Arid had been pulled down by Department of Conservation and Land Management (CALM) staff in the 1980s. This site was not visited as part of this investigation.

![Alexander Bay rock shelter](image)

**Figure 71.** Alexander Bay rock shelter (Photographer and date unknown, ca. 1980s, courtesy Esperance Bay Historical Society).

**Aboriginal sites**

As Williamson (2004: 176) writes of Australian Aboriginal history, the ‘pre- and post-contact worlds are most profitably investigated as a historical continuum and not as being divided by the absence of history or archaeology’. Archaeologists have explored themes of culture contact, control, colonisation and resistance on Australian historical archaeological sites (Harrison 2002, 2004; Murray 2004; Paterson 2006, 2008). Pastoral sites in the Pilbara and Kimberley regions of Western Australia exhibit archaeological evidence of Aboriginal activity such as flaked stone artefacts and/or worked imported materials such as glass, iron and ceramics, representing the adaptation, involvement and contribution of Aboriginal workers to the pastoral industry economy and their maintenance of traditional culture (Harrison 2004: 109-143; Veth and O’Connor 2005; Paterson 2006: 99-111; Souter 2013: 87-97). Sealing-era and early settlement sites on Kangaroo Island have been investigated
with the aim of elucidating evidence of cross-cultural contact, lifeways and forced labour/slavery of Tasmanian Aboriginal women (Matthews 1999; James 2002). Such studies are relevant to an approach considering contact between European and Aboriginal workers on both inland and maritime frontiers.

Chapter 5 provides historical evidence for Aboriginal people along Western Australia’s south coast being involved with colonial shore whaling activities, including in the Archipelago of the Recherche. Like whaling and sealing sites generally, Aboriginal sites and artefacts with possible connections to these industries are sparse and fragmentary, and interpretations of their attribution are uncertain, and contestable. The following examples consider some Aboriginal sites as being possible evidence for Aboriginal contact with, and involvement with sealing and whaling in the Esperance area.

Aboriginal ship depictions at rock art sites, sometimes many kilometres inland, raise questions about what they might represent, and a theoretical question about how we can interpret other cultures’ visual representations of history (Clarke and Frederick 2008: 150). Was someone depicting strange new phenomena? Or graphically warning of a new type of danger for others to beware of? Or, was the artist communicating an experience of their having been on board, working or voyaging on a vessel?

The presence of lithic artefacts in close proximity to historic sites raises questions about their provenance and association. Were they there for hundreds, or even thousands of years before non-Aboriginal activity? Or were they associated in some way with historic-era activities, for example being associated with Aboriginal workers or visitors?

**Lizard traps and whalers’ lookout, Barrier Anchorage, Cape Arid**

Lizards were a regular food source for Aboriginal people. Lizard traps are commonly found on granite outcrops throughout the study area, and mainland of southwest Western Australia generally. A lizard trap is easily constructed, consisting of a portable flat slab of rock (usually granite) supported by a smaller rock at one end to create a narrow, shady shelter favoured by lizards. By creating an artificial habitat, Aboriginal people could increase their chances of capturing lizards, and as such
lizard traps’…may be one of the few southwest indices of mid to late Holocene intensification: an attempt to increase predictability of resource distribution (Smith 1999: 20, Smith 1992: 360-4). It is also likely that lizard traps were constructed and maintained into the historic period.

Two lizard traps were recorded in close proximity to a whalers’ lookout at the top of the headland at Barrier Anchorage (Figure 72, Figure 73, Figure 74). The context of the lizard traps close to the lookout is significant, as similar portable flat slabs were used to construct the lookout walls. A logical question is raised as to why these portable slabs in close proximity to the lookout were not selected to construct the walls of the lookout.

Aboriginal people were highly regarded for their hunting skills and keen eyesight (Gibbs 2003: 7). When Aboriginal whaler Jack Hardy worked as a lookout at Cheynes Beach, he could see whales long before any of the European whalers (WM 10/2/1927: 27). Some of the Aboriginal workers registered as employees on the ‘East Coast’ stations (referring to Cape Arid and Middle Island area shore whaling stations) were regularly employed during the whaling season over a period of nearly twenty years (Gibbs 2003: 7-8). As well as working in their described roles as pulling hands or steersmen of the whaleboats, their other duties included maintaining a lookout for whales.

![Figure 72. Lizard trap located near Barrier Anchorage whalers lookout, view southeast (Ross Anderson/WA Museum).](image-url)
Figure 73. Gabbie Kylie Foundation field school participant Lyn Rudder recording a second lizard trap near Barrier Anchorage lookout (Ross Anderson/WA Museum).

It is possible that the lizard traps were constructed during the whaling period at Barrier Anchorage which operated seasonally between the 1860s and 1880s. The spatial context of the lizard traps in proximity to the lookout (Figure 74), combined with historical evidence of regularly employed Aboriginal workers in the Cape Arid area, suggests an interpretation as being possible archaeological evidence for Aboriginal whalers maintaining traditional life-ways by hunting favoured bush foods, possibly supplementing inadequate or unpalatable provisions. It is also interesting to compare this example with the shellfish remains found at West Cape Arid lookout, described above. If this were the case, it may partially explain how the East Coast shore whaling stations could remain operational into the late 19th century, given that small crews were able to supplement their provisions by living off the land thus reducing operational and supply costs to the operator.

A comparative example is found just inland at Cape Arid. In November 2012 a Gabbie Kylie Foundation team conducted archaeological surveys and excavations at the historic homestead of Gabtoobich, established by settler William Ponton sometime around 1903 (Bridges 2004: 84).
Figure 74. GIS map showing locations of Barrier Anchorage lookout in relation to lizard traps.

As Ponton was 60 years old when he established the small homestead, it was clearly his Aboriginal workers who undertook the majority of the heavy physical labour involved in quarrying and transporting stone to construct walls of the house and barn. The quarry from which the building stone was sourced had a number of lizard traps surrounding it, their context making it apparent that Aboriginal workers quarrying the stone were supplementing their diet by hunting and gathering traditional bush foods in the area (R. Gardiner, pers. comm., November 2012).

The lizard traps at Gabtoobich homestead and at Barrier Anchorage appear to be examples of lizard traps being used into the historic period, thus making them contact frontier archaeology sites. Although Aboriginal people were being increasingly integrated into seasonal cycles of pastoral and whaling employment, the ongoing use of lizard traps are possible evidence that they maintained continuity in their traditional practices of bush food gathering, and a high degree of self-sufficiency despite the availability of European foods.
Rock art, Maarbaleerup/ Mount Ridley ship and whale depictions

Recent Australian research into Aboriginal rock art has focused attention on the rich archaeological record of Aboriginal ship depictions as an important source of information on Australian maritime history, and a means to explore previously undocumented maritime encounters and interactions between Aboriginal and non-Aboriginal people (e.g. Burningham 1994: 139-151; Bigourdan and McCarthy 2007: 1-10; Taçon and May 2013: 7-13; Paterson and van Duivenvoorde 2013: 30-54).

Marbaleerup/ Mount Ridley is a granite outcrop (inselberg) on a flat plain 70km inland from Esperance (Figure 75).

Figure 75 GIS map showing locations of Aboriginal sites possibly related to sealing and whaling activities.

The site is of high Aboriginal cultural significance as a complex of eleven rock shelters with rock art panels exhibiting over 200 pictograms (pigment motifs), two gnamma holes and an artefact scatter (Gunn 2008: 2, 81). The site was recorded in detail by consultant rock art expert Ben Gunn in 2008 for, and with the assistance of Traditional Owners (Gunn 2008).
MR-01 is the largest shelter with the largest number of panels (n=12) and motifs (n=79). The motifs include emu tracks, bird tracks, hand stencils, sets of lines, infilled areas and fragments of motifs (Gunn 2008: 90).

Gunn used a photo-tracing technique to delineate earlier and later, superimposed additions to the panel (Figure 76). The main colours used in the paintings are red, with later additions of cream and one example of yellow (Figure 77). Gunn describes the red paintings in MR-01 under discussion here as ‘mid-period’ paintings (Gunn 2008: 32).

Figure 76. Mid-period red ochre motifs numbered by Gunn (2008: 32) on Panel J MR-01 rock shelter, Maarbeelerup/ Mount Ridley. Motif 26 is a whale and motif 32 is a ship/ vessel depiction (Gunn 2008: 32).
Gunn concludes that:

While no traditional interpretation of the function of the rock art here has been recorded, the complex panels of superimposed designs on the main art panels in MR-01, is suggestive of “blackboard” teaching, most likely as part of initiation, totemic or maintenance ceremonies (cf. Spencer and Gillen 1899; Gould 1969; Hallam 1979). (Gunn 2008: 83)

Since Gunn’s work, archaeologist Myles Mitchell has undertaken ethnographic recording, and advises that there is direct oral history from Traditional Owner Tom Bullen for rock art on Panel J in shelter MR-01 (cf. Gunn 2008: 20) being depictions of a whale, and a ship. The whale is a large shape with vertical striped infilling lines that depicts the body and flipper of a whale, while a vessel is depicted in the lower right of the panel. Mitchell advised that ‘the oral history suggests that the coastal people (Esperance Noongars) were educating the desert mob about the things in the ocean’ (M. Mitchell, 2013, pers. comm.). It is significant to note that both Gunn’s archaeological interpretation and Tom Bullen’s oral history are consistent in that the rock art was being used by Aboriginal people as a means of education/communication.
It is also significant that MR-01 Panel J depicts the ship and whale on the same panel, and that Gunn attributes both the ship and whale to the same ‘mid-period’ of rock art on this panel. If the depictions were not related, then an interpretation could be that at some time there was information being communicated about a ship, and at some other time information was being communicated about a whale. However, as both spatial and chronological evidence supports a relationship between the two depictions, it is logical to propose that information was being communicated about an event occurring on the coast involving both a ship and a whale. Events in this region where ships and whales could be found together, close inshore and visible to Aboriginal observers on the coast were shore or bay whaling activities.

The whale is depicted as a number of vertical lines. One interpretation of these lines is that they may represent throat grooves that appear on rorqual species of whales, including humpback whales, allowing their throats to expand while feeding. This is notable as the underside of a whale is usually only noticeable if it is either a) dead floating in the water or washed up on shore, or b) being hoisted aboard a ship or onto a shore-based flensing platform as occurs during the flensing and cutting in process to obtain the blubber (Figure 78).
Figure 78. Dead humpback whale on flensing deck of a Californian shore whaling station showing belly ridges (Stark 1923: 30).

Supporting a relationship between the vessel and whale depictions are certain features of the vessel (Figure 79), that are interpreted as follows:

1. Hull
2. Single mast
3. Jib sail
4. Three or four pulling oars
5. Steering oar at stern
6. Continuous line from bow that may be a tow/ harpoon line attached to a whale
Whaleboats traditionally carried five 16 to 18 feet long pulling oars and a 22 foot long steering oar at the stern (Ashley 1991: 61). They also had the capacity to step in a mast (sometimes two) and sails including lug sails and jibs, with gaff-rigged lug sails being typical. The layout for the oarsmen in a whaleboat was ‘single banked’, meaning there was only one oarsman to each oar and thwart, and the men were staggered, with each sitting on the opposite side of the boat to their rowlock (Ashley 1991: 61).

Figure 79. Interpretation of vessel features following Gunn’s record of mid-period motifs on Panel J MR-01 (Gunn 2008: 32).
Figure 80. Image of whaleboats under sail. Note jib (front) and gaff-rigged lug sail, and steering oar at stern (Ashley 1991).

Figure 81. ‘Whalers off Twofold Bay, New South Wales’ depicting whaleboats chasing a whale, note steering oar at stern (Oswald Brierly, Art Gallery of New South Wales).

Though the lines are figurative, the fact there is a continuous line from the bow in the context of a depiction of a whaleboat and whales could represent a harpoon line or tow line. When a whale was killed, the whaleboat crew(s) would then have to tow
it back to their ship or shore station for processing, which could be heavy, laborious work. A jib sail may have been set to assist the oarsmen in their task, as it would not be likely to have been set during the harpooning of a whale.

From a maritime/ ship depiction perspective, this panel is interpreted as a whaleboat possibly engaged in killing a whale, or towing a dead whale. From a contact perspective the archaeological and ethnographic evidence is that coastal people were communicating information about shore or bay whaling activities to the inland mob. Was the artist actively engaged in these activities and describing their involvement to others? Or, were they a passive observer from afar? Alternatively or additionally, were they communicating that dead whales were available for feasting and ceremonial activities—something of traditional social interest to Aboriginal society?

In their technological analysis of Aboriginal historical ship depictions in Arnhem Land, Wesley, McKinnon and Raupp (2012) provide a systematic classification framework for the analysis of ship depictions. This includes assessment of elements of the ship’s structure, propulsion and function, and whether any human figures are present. The authors consider that depictions of parts of the vessel that represent labour are a possible indicator of direct Aboriginal experience and knowledge of introduced watercraft (Wesley et al. 2012: 264).

This interpretation of the Marbaleerup ship depiction identifies two forms of propulsion (oars and sail), a steering oar and possible harpoon or tow-line, as well as the hull of the vessel itself. This extra detail provides additional complexity beyond simple depictions of vessel hulls with sails, and represents a greater understanding of the nature of the vessel’s layout and equipment, and specific work activities. The amount of detail within this depiction may therefore represent a familiarity by the artist with the subject, beyond mere observation.

Boyatup is another inselberg on the mainland, 30 km inland from Thomas River, just west of Cape Arid. On the eastern side of the outcrop is a rock shelter with rock art, including numerous hand stencils and one motif in red ochre that has been interpreted by one Traditional Owner as a ‘ship’ (G. Selby-Yorkshire, pers. comm. February 2012). Unlike the Marbaleerup ship depiction, there is no direct oral history to support the motif as being of a vessel. The motif has been variously interpreted by
other Traditional Owners and archaeologists to represent a ship, a ceremonial headdress or a spear thrower (M. Mitchell, 2013, pers. comm.)

Figure 82. Possible ship depiction painted in red ochre at Boyatup (Ross Anderson/WA Museum).

The motif is difficult to make out as it has partly faded. However, it does have some key features that may support an interpretation of it depicting a small sailing vessel:

1. ‘Hull’ with pointed end
2. Single ‘mast’
3. Triangular ‘sail’

Supporting evidence for the motif being a ship depiction are its visible key features corresponding with the layout of a small, simple sailing vessel, and its proximity to Cape Arid/Middle Island as a node for historically recorded contact between sealers and whalers and Aboriginal people throughout the 19th century. The earliest recorded contact between Europeans and Aboriginal people in the area dates to around March 1826, when sealer Samuel Bailey abducted a 6-7 year old girl Fanny Bailey (her given English name) from the mainland opposite Middle Island, then took her to
Middle Island, and subsequently to King George Sound (D’Urville in Rosenman 1987: 31-34; Lockyer 1826).

As well as visiting sealers from at least 1824 (and possibly as early as 1810) through to the 1850s, bay whalers and shore whalers operated whaleboats from Barrier Anchorage and Thomas Fishery from 1840.

The single lug sail rig is consistent with the types of vessels seen on the south coast from early times. Sealers used small, single-masted boats to voyage from Van Diemen’s Land and Kangaroo Island across the Great Australian Bight to King George Sound, and further around Cape Leeuwin to the Swan River and Rottnest Island. William Nairne Clark described the typical layout and manning of vessels used by boat-based sealing gangs on the south coast:

> The crew of a sealing boat is generally composed of 4 men and a boat-steerer and is built in the whale boat fashion, but much larger than common whale boats, with a lining of canvass of about a foot in breadth all along the gunwale of the boat, for the purpose of excluding the spray of the sea in heavy weather. *(PGWAJ 3/9/1842: 3)*

Other descriptions of sealers’ boats are that:

> The preferred type of sealing boats used in Australian and foreign (i.e. New Zealand) waters, came to be whaleboats constructed in Van Diemen’s Land. These were double ended clinker built boats measuring between 25 and 30 feet in length, and were made from Huon pine. They possessed a short deck forward, but lacked a rudder. Steering was done with the aid of a long steer oar held by the coxswain. If sail was required, a mast could be deployed and a sprit or lug sail unfurled. Up to 8 men could be routinely accommodated in such a vessel. The vessels were highly manoeuverable, and as such were required to deliver sealing gangs onto jagged rocks, before beating the incoming swell and darting out to sea again (Kostoglou 1996: 57).

Explorer John Lort Stokes described a sealer’s boat in the Bass Strait Islands in 1846:
The sealers on New Year Island had a large whale boat, which I was somewhat puzzled to know how they managed, there being but one man among them. He informed me, however, that his wives, the two native women, assisted him to work the boat, which had been well prepared for the rough weather they have to encounter in Bass Strait, by a canvass [sic] half deck, which, lacing in the centre, could be rolled up on the gun-whale in fine weather. (Kostoglou 1996: 57)

Other than pointing out the consistencies between these small, single-masted vessels used by sealers and whalers and the key features of this motif, little more can be extrapolated from the motif.

Although there is no direct Aboriginal oral history to confirm the Boyatup motif is a ship depiction, this thesis supports an interpretation of the motif as a possible ship depiction. It shows the key features of a small, single-masted sailing vessel. Its context within twenty kilometres of some of the earliest documented maritime activities, and contact between Aboriginal and non-Aboriginal people on the south coast is significant.

McDonald’s (2008) analysis of drawn and engraved contact rock art in the Sydney basin found that more than half of all contact motifs recorded were of sailing vessels, and were located well away from European settlement sites (McDonald 2008: 102). The fact that the contact art was not found in the immediate zone of contact led McDonald to conclude that ‘the production of rock art in these contexts would suggest the sharing of information between social groups’ (ibid: 110). Overall, McDonald found that rock art as a means of social communication was dropped at some point soon after initial contact, suggesting that ‘social dislocation was rapid and devastating’ (ibid). McDonald’s finding is relevant to the issue of rock art — and particularly ship depictions — as a means of recording early, initial contacts.

Supporting this idea are Paterson and Van Duivenvoorde (2013) who also propose that most contact art including ship depictions are made in the immediate period at the time of contact, when they represented new experiences. Thus it is possible that the Marbaleerup ship and whale depictions, and possibly also the Boyatup motif, represent an early stage of contact with newcomers in ships, most likely to be engaged in early sealing and whaling activities.
Aboriginal womens’ places

Dortch and Morse (1984) described finding worked ceramics at Andrews Point on northern coast of Middle Island they attribute to Aboriginal women living with sealers. James (2002: 17) interprets the Kangaroo Island sealing landscape as including womens’ places—spaces where they were not subjected to control by men. This is another way of understanding the Middle Island cultural landscape, as having spaces of control and freedom. In microcosm, more broadly this represents the nature of transformation of the Southern Ocean frontier. During the frontier stage Aboriginal people still had spaces they could retreat to be free of the influence of European colonialism, but as the hinterland was progressively invaded, their territory was taken from them and delineated by more rigid boundaries, there were fewer spaces where they could be free of European control.

Prisons, racial segregation and marooning sites

Along with other vigilante actions including killings and massacres, from the early period of European settlement Aboriginal people were marooned on islands in the Archipelago of the Recherche, including Mondrain Island and Boxer Island, as punishment by pastoralists for killing livestock (KM 17/11/1950: 7; WA 21/4/1925: 3; Rintoul 1964: 33; Noongar Resistance on the south coast 2008). Boxer Island was reportedly named after an Aboriginal prisoner named Boxer, who escaped by constructing a raft, or swimming to the mainland (WA 21/4/1925: 3). An official proposal in 1905 to use Middle Island as a place of segregation for Aboriginal people did not eventuate (SROWA 1927/1127).

Gardens

Sealers, shore whalers and bay whalers grew vegetable gardens on islands and the mainland. In 1835 sealer John ‘Black Jack’ Anderson and his gang had a garden on Middle Island (Declaration of James Newell of Albany, Albany Courthouse Plaints, 13 August 1835. SROWA WAS 1686, CONS 348, Item 1), while in 1840 crewmen from the American whaler Hamilton went ashore on Middle Island to plant vegetables and gather firewood (Hamilton log PMB 687). While bay whaling in the Archipelago of the Recherche in 1841 the crew of the French whaler Mississippi had a garden and kept pigs, a tortoise and sheep on an island in Rossiter Bay (Dickson 2006: 134). On Middle Island a modified large gnamma (F013) has a unique self-
watering garden formed of soil and rock slabs backing onto the dam wall structure, and vegetables were also grown for the goldfields (see Chapter 8).

Salt pans
Salt lakes and pans were significant resource locations as salt was used for preserving seal skins and food, along with its many other uses. The main resource in the Archipelago of the Recherche was Lake Hillier on Middle Island, where traders and sealers gathered tons of solar evaporated salt in the summer season by scraping the encrusted salt into bags. There are a number of shipping reports of vessels sailing from Adelaide or Launceston to Middle Island in ballast and returning with cargoes of between 20 and 30 tons of salt (see Chapter 8 and Appendix B). It seems that some vessels traded with resident gangs or informal settlers to make up a full return cargo of processed seal skins, kangaroo skins and salt on the same voyage to. Other salt lakes extensively utilised by sealers and traders on the Southern Ocean frontier were located on Kangaroo Island and Rottnest Island.

Ballast quarries
South coast traders collected medium-sized, rounded granite cobbles from the shoreline of Ben Island that were ideal for ships’ ballast (Andrews 1948: 91, 95).

Historic pathways
Historic terrestrial pathways between sites are often the same paths used to traverse the landscape in modern times, though there may be historic pathways that have fallen into disuse as activities have changed. The discovery of a cache of agricultural tools on Middle Island (see Chapter 8) along a modern pathway indicates that this is also likely to have been used as a historic pathway, being the shortest route between the beach landing and granite outcrop gnamma/ garden area. Other historical pathways would have existed between shore whaling station camps and lookouts on the mainland, such as at Barrier Anchorage and Thomas Fishery.

Smuggling routes
Until the Western Australian colonial government abolished port dues and charges in 1846, whalers commonly used isolated bays outside the settlements where they became involved in smuggling tobacco, alcohol and other dutiable goods into the colonial settlements. This was not so much a problem in the Archipelago of the Recherche during the whaling era as for King George Sound, with numbers of
French and American whalers bay whaling at Two Peoples Bay. The French whaler *Courrier des Indies* is recorded to have been involved smuggling spirits into King George Sound via the Kalgan River (Dickson 2006: 268). Convicts escaping from the settlement and crewmen deserting from whale ships would have used the same smuggling routes, both across land and in small boats.

Between September 1825 and early 1826 the Hobart sealing schooner *Governor Brisbane* owned by Messrs Kemp and Co. was piratically seized by its master Davidson and sailed from Bass Strait through the Archipelago of the Recherche, dropping sealing gangs in Westernport and on Middle Island before rounding the Northwest Cape of New Holland and sailing to Batavia, where the four remaining crew were arrested and vessel impounded by Dutch authorities (*SGNSWA* 6/1/1827: 3; *HTG* 7/10/1826: 2; Lockyer 1826: 38).

**Graves**

As symbolic places in the maritime cultural landscape, graves and their associated human remains have archaeological potential to reveal detailed information on age, gender, diet, status, occupation, ethnicity, cause of death and possibly individual identity.

Captain Matthew Flinders’ buried his boatswain Charles Douglas, and possibly another crewman William Hillier on Middle Island, both of whom died during HMS *Investigator*’s 1803 visit (Flinders 1814, 18/5/1803). Major Lockyer (1826: 20-21) noted that ‘a great number of graves’ could be seen in the area due to the lawless nature of the sealers and associated violence.

On 29 March 1839 Robert Gamble made a sworn statement to Patrick Taylor J.P. that ‘on the 25th December I buried John Anderson on an island called Manduran Island’ (Albany Courthouse Records), possibly a transcription error for Mondrain Island. One of three seamen marooned at Cape Arid by Captain Hudspeth of the colonial whaling barque *Patriot* died of starvation during his trek to Cape Riche, and was buried near Doubtful Island Bay (Dickson 2006: 334-335). Andrews (1959: 21) reported he and his brother finding a grave they believed to be that of the sealer ‘Williams’ (possibly John William Andrews), buried on Middle Island after being killed by a ricocheting bullet while on a sealing expedition.
To date no graves related to maritime activities have been positively located in the Archipelago of the Recherche, though a location for Charles Douglas’ grave on Middle Island has been reported (Green et al. 2001).

Summary

The historical analysis, archaeological investigations and discoveries reported in this chapter help answer key research questions posed at the outset of the investigation, namely that they contribute to our understanding of the nature and extent of early sealing activity in the Archipelago of the Recherche (research question 3), they add to our knowledge of individuals and groups involved in maritime activities in the study area (research question 1) and they provide evidence for cross-cultural contact and Indigenous involvement in sealing and whaling (research questions 4 and 5).

Following Jasinki’s (1993) classification of evidence for the maritime cultural landscape, the Archipelago of the Recherche contains sites that fall into categories of both techno-practical and symbolic sites. The former include shore whaling stations, sealers’ and bay whaling camps, shipwrecks, cache sites, gardens, cairns and navigation marks and resource gathering sites (salt, ballast, flora and fauna). Symbolic sites include graves and rock art sites.

Historical research provided information on a number of previously undocumented potential archaeological sites in the Archipelago of the Recherche including sealing and whaleboat wrecks, whalers lookouts, sealers’ and whalers’ campsites and a bay whaling campsite with a tree inscription carved by American whalers from the Julian (1840) at Point Malcolm. Potential archaeological site locations were visited as part of this investigation.

Archaeological surveys have recorded new information from colonial shore whaling and foreign bay whaling archaeological sites at Barrier Anchorage, Cape Arid, Goose Island and Middle Island including tryworks, lookouts and artefacts.

The correlation of the American whaling ship Hamilton’s logbook entries (PMB 687) with a lookout and other archaeological remains at Hawes Island in Barrier Anchorage has likely established their provenance, and allowed a better understanding of their archaeological significance and foreign whaling activities in the Archipelago. The Hawes Island lookout is the first archaeological site located in
Western Australia to be positively associated with foreign bay whaling activities—as opposed to colonial shore whaling sites—in Western Australia.

The concentration of sites in the Cape Arid, Middle Island and Goose Island areas reflects the strategic and natural advantages offered by this area by offering a range of protected anchorages in different weather conditions, a whale hunting ‘pinch point’, proximity to seal and sea lion rookeries, solar evaporated salt, food resources and fresh water.

One explanation for the prevalence of lookout sites on Goose Island is that the same method employed by American whalers aboard the *Hamilton* in 1840 may have been utilised by colonial shore whalers—namely, having a shore whaling base on either Middle Island or Cape Arid, with at least one boat’s crew camped across the strait. The lookouts on both sides could see any whales entering the strait, and signals would allow whaleboats to be deployed from both directions to ambush the travelling whales more efficiently, giving them less chance of escape.

Aboriginal archaeological sites include rock art depictions at Marbeeleerup/ Mount Ridley, Boyatup rock shelter and lizard traps at Barrier Anchorage, which are all interpreted as possible evidence of Aboriginal contact with, and direct involvement in sealing and whaling activities.

The variety of Aboriginal, maritime and historical sites related to sealing and whaling in the Archipelago are a diverse and unique cultural heritage resource. In relation to the archaeological research questions, new evidence is presented that adds to our understanding of the types of cross-cultural contact that have occurred within the study area. Historical and archaeological research has critically examined a number of fragmentary sources to increase understanding of the extent, type and range of sealing and whaling activities undertaken within the maritime cultural landscape of the Archipelago of the Recherche, as well as providing additional specific information on the nature and arrangement of those activities. These activities are best understood and contextualised within the broader maritime cultural landscape of the Southern Ocean frontier and include behavioural processes such as the acquisition and transmission of a maritime and cultural knowledge base, and the related development of a culturally diverse maritime society along the Southern
Ocean frontier. They fit within a wider story of world political, social and economic systems, and colonisation processes in the Australasian region.

The following chapters present the results of historical and archaeological investigations into the Middle Island historic site (Chapter 8), *Belinda* (1824) shipwreck (Chapter 9) and Boxer Island sealer’s cave (Chapter 10).
Chapter 8 The history and archaeology of Middle Island

Background
Middle Island is the largest island in the Archipelago of the Recherche, and has resources of timber, fresh water, salt, cultivable land and edible fauna (Figure 83). It has evidence of prehistoric Aboriginal use before rising sea levels cut it off from the mainland. Subsequent human activities include European exploration, sealing, whaling, salt harvesting, gardening, pastoralism, shipwrecks, survivor camps and shipwreck salvage, fishing and modern visitation by campers and fishers (Appendix B).

Figure 83. Aerial view of Middle Island looking southwest, Goose Island at right of picture (Graham Gath).

A concentration of historic stone ruins just inland of a beach landing place at the western end of Belinda Beach have been variously associated with sealing, whaling and salt collection activities (McIlroy 1987, Pearson 1988, Gibbs 1995, Green et al. 2001, Paterson and Souter 2006, Marrell 2009), while lookout structures on Goose Island have been associated with colonial and foreign shore and bay whaling activities (Pearson 1988, Anderson 2011) (Figure 84).
In 2006 a joint University of WA and WA Museum team including the author conducted excavations at Middle Island aimed at identifying associations between the various known historical activities and the structures (Paterson and Souter 2006) with artefact analyses and an interpretation of the site subsequently conducted by Marrell (2009). Marrell interpreted the majority of features and excavated materials as relating to the salt mining venture of McCarthy (1903-1905), and that the archaeological results ‘indicated that the historical record of whaling at Middle Island in the 1840s misrepresents the scale of the operation and that the contemporary recording of 1862 season may represent more accurately the scale of whaling which took place at the site’ (Marrell 2009: 85).

Since 2006 further archaeological and historical research on Middle Island, and on other islands in the Archipelago have occurred as part of this investigation. This chapter provides the results of this research, and synthesises it with previous work in relation to the research questions ‘What individuals and groups were involved in
early informal maritime activities in the study area?’ ‘Does the historical and archaeological data contribute to our understanding of the nature and extent of early sealing and whaling activity in the Archipelago of the Recherche?’ and ‘Do the archaeological sites exhibit evidence for gender, ethnicity and cross-cultural contact?’

To answer these questions this chapter will:

1. Collect and describe all of the known evidence for historic-era human activities on Middle Island (a timeline is provided in Appendix B);
2. Summarise the aims, results, analyses and interpretation of the 2006 excavations (Paterson and Souter 2006; Marrell 2009);
3. Provide the results of additional historical research, archaeological surveys and excavations undertaken between 2007-2013 as part of this thesis;
4. Describe all known historical-era archaeological features documented between 2006 and 2015 and provide evidence for their association with historical activities/ events where possible; and
5. Incorporate all of the available historical and archaeological information and discuss the evidence for sealing and whaling at the Middle Island historic site.

Overall this chapter presents as complete an account as possible of historic-era human activities on Middle Island incorporating all available historical sources and archaeological data. Corroborating the historical and archaeological data, including new research undertaken for this study, this thesis argues that that the majority of the historic stone structures on Middle Island are associated with mid-19th-century, maritime frontier settlement involving mixed resource gathering (sealing, shore whaling and salt harvesting). A summary of the historical activities known to have occurred and an investigation of the archaeological features on Middle Island follow.

**Historical activities**

**Exploration**

The Archipelago of the Recherche appeared on Dutch maps as an unnamed cluster of islands and reefs lying off the coast of ‘t Landt van P. Nuyts’ (Nuytsland),
following a voyage of discovery by the crew of the *Gulden Zeepaert* in 1622. In 1792 French explorer Bruni d’Entrecasteaux charted and named ‘Ile de Milieux’ (Middle Island), for its location in the approximate centre of the Archipelago of the Recherche. In 1801 Captain Matthew Flinders passed through the Archipelago and landed at Thistle Cove, Lucky Bay and Middle Island, anchoring off Middle Island (Flinders 1814, Pearson 2005: 86). In 1803 while returning to Port Jackson, Flinders’ boatswain Charles Douglas died and was buried on Middle Island, with a copper plaque placed over his grave (Flinders 1814, 18/5/1803) both as yet not located. Flinders also lost two bower anchors from HMS *Investigator* in Goose Island Bay (Flinders 1814, 21/5/1803). Both anchors were located and recovered in the 1970s, and are now on display in the National Museum, Canberra and South Australian Maritime Museum in Adelaide. There is a strong possibility Flinders may have buried another crewman William Hillier ashore, who died before *Investigator*’s departure, and after whom Lake Hillier is named (Flinders 1814, 18/5/1803).

**Sealing**

As seen in Chapter 5, it is possible that Port Jackson and Van Diemen’s Land-based colonial sealers visited Western Australia’s south coast via Bass Strait and Kangaroo Island from around 1810, including the Archipelago of the Recherche (*SGNSWA* 7/4/1810: 1; *WA* 24/8/1929: 4).

The first contemporary references so far located confirming the presence of colonial sealers in the Archipelago involve the wrecking of *Belinda* on 19 May 1824 at Middle Island, the rescue of *Belinda*’s crew in December 1824 by *Nereus* and arrival of salvaged *Belinda* wreck material in Sydney by *Liberty* in March 1825 (*SGNSWA* 17/3/1825; *SGNSWA* 29/3/1826: 2; Rescue of *Belinda*, 4/4/1823, CSP SRONSW, Item 4, Fiche 3508, Reel 6010: 73; Robert Campbell owner of brig *Nereus*—claim on Government for rescuing crew of brig *Belinda*, 29/3/1825, CSP SRONSW, Item 4, Fiche 1785, Reel 6063: 156-158).

The 26 *Belinda* survivors camped on Middle Island for approximately six months before being rescued by *Nereus* on 8 December 1824. During this time the survivors attempted to return to Sydney in two ship’s boats. However, one boat was wrecked 200 miles east of Middle Island on the mainland coast, and the crew returned to
Middle Island by walking, with the other boat following them offshore (SGNSWA 17/3/1825).

There is no evidence for sealers working or living in the Archipelago at the time of Belinda’s wrecking, although it was outside of the summer sealing season and Middle Island was almost certainly visited by earlier ship-based foreign and colonial sealing gangs during the sealing season.

In terms of the remains of stone structures on Middle Island, events subsequent to the wreck of the sealing and trading cutter Mountaineer at Thistle Cove on 24 March 1835 provide descriptions of a gang of sealers living in a ‘house’ or a ‘hut’, tents and having a garden. After ten days of camping on the beach the survivors took a small boat to Middle Island, arriving three days later on 6 April. Upon landing the survivors ‘found a black man named Anderson, an Englishman named Isaac, James Manning, a man named Frank, one named White, a boy named James, and three native women. Two of the women were living with Anderson and one with Isaac. Anderson had a whaleboat which he calls his now. The other men were under his orders, belonging to his boat. He has also a house, and garden. Decl[arant] engaged as one of the boat’s crew in Anderson’s boat and went sealing around the neighbouring islands til [sic] June’ (Declaration of James Newell of Albany, Albany Courthouse Plaints, 13 August 1835. SROWA WAS 1686, CONS 348, Item 1).

During 1835 Charles Bionson described burying his money ‘in the tent’ on Middle Island (Examination of Charles Lambert Biornson of Albany, Albany Courthouse Plaints, 9 September 1835. SROWA WAS 1686, CONS 348, Item 1). James Manning was described as having a ‘hut’ on Middle Island (Examination of James Newell, hearing of John Anderson and Isaac Winterbourne, Albany Court House declarations) while John ‘Black Jack’ Anderson had a ‘house and garden’ (Declaration of James Newell of Albany, Albany Courthouse Plaints, 13 August 1835. SROWA WAS 1686, CONS 348, Item 1). Mountaineer passenger and survivor Dorothy Newell also described Anderson having a ‘hut’ and a ‘storeroom’. Of the storeroom ‘there was no door or other means of securing the store room’ (Examination of Dorothy Newell of Albany, Albany Courthouse Plaints, 9 September 1835. SROWA WAS 1686, CONS 348, Item 1). Anderson’s hut later caught fire (Examination of Frances Mead of Albany, Albany Courthouse Plaints, 8
September 1835. SROWA WAS 1686, CONS 348, Item 1), indicating it was made of flammable materials such as timber, grass or wattle and daub. Anderson was still living on Middle Island in March 1836 (Declaration of John William Andrews, Examination of John Anderson, Albany Court House Records, Plaints, 18/3/1836. SROWA WAS 1686, Cons. 348, Item 2).

Sealers continued to live on Middle Island including Robert Gamble with his Aboriginal wife Eliza Now, John Hughes Morgan with his wife, and other gang members between 1836 and between 1840 and 1842 (Lopresti, T., pers. comm. 2012).

Thus the available historical records do not provide any evidence for attributing the Middle Island historic stone structures to the earliest phase of occupation by resident sealers, but rather point to sealers living in tents and wooden, or possibly grass, or wattle and daub huts. This is no surprise when considering that even at formal settlement sites such as King George Sound, Fremantle and Peel Town during the 1820-30s, the earliest dwellings constructed by intending permanent settlers were tents or canvas, grass, timber or wattle and daub huts (e.g. Burke et al. 2010). No other comparable examples of settlements or domestic structures built of stone have been located at other key sealing activity nodes in Western Australia such as at Doubtful Island Bay, Normalup, Breaksea Island and King George Sound.

Evidence for sealers visiting and occupying Middle Island almost continuously throughout the 19th century include accounts of a sealer named Williams (possibly John William Andrews) accidentally shot by a ricocheting bullet during a sealing expedition and buried on Middle Island sometime after the early whaling period (presumably post-1860), and sealers demolishing ‘the whalers’ stone houses’ on Middle Island (Andrews 1948: 98). Sealers and ‘lawless desperadoes’ were reported as living on Middle Island in 1848 (Inq 5/1/1848), a sealing boat was wrecked near Cape Arid in 1850 (Inq 17/4/1850: 3) and the schooner Grace collected a cargo of sealskins, oil and salt from Middle Island in 1851 (Inq 9/4/1851: 1). In December 1855 the cutter Henry and Mary, Master Goss, departed King George Sound for Middle Island returning in March 1856 with a cargo of sealskins, seal oil and salt (ICN 19/12/1855: 2; ICN 19/3/1856: 2); American whaler William Whitecar (1864) reported small sealing boats throughout the Archipelago of the Recherche in the
early 1860s; a party of sealers visited Middle Island during 1889 (Andrews 1948); and the Western Australian government proclaimed a closed season for sealing in 1892 (GG 9/6/1892).

**Historic-era Aboriginal occupation**

Dortch and Morse (1984: 32-39) provide the first archaeological evidence for Aboriginal occupation of Middle Island. The occupation they describe is of two types, namely:

1. Prehistoric use of elevated areas later cut off by glacio-eustatic sea-level rise to become islands around 11,000 to 9,000BP;
2. Historical-era sporadic visits, or ‘prolonged occupation under abnormal, almost always adverse conditions, following the arrival of Europeans’.

Dortch and Morse collected 254 artefacts from seven sites on Middle Island, 30 artefacts from two sites on Stanley Island and two artefacts from Gulch Island. Of the 222 artefacts they found on Middle Island, they identified one piece of worked bottle glass and three worked ‘porcelain’ fragments, one of the latter identified as a ceramic scraper/adze. All three ceramic artefacts were found within a 150 metre square area at Site 6 on Andrews Point on the central northern coast of Middle Island. The artefact described as a scraper/adze is a worked rim or base fragment from a stoneware jar. The bottle glass artefact was found within a 50 x 80 metre area at Site 5 along the south-eastern fringe of Pink Lake. Dortch and Morse found these artefacts ‘may be linked with the presence early last century of European and American sealers, who seem often to have had with them Tasmanian women and other Aboriginal people’ (Dortch and Morse 1984: 33, 35-36). It was common practice for Tasmanian Aboriginal women living with sealers on Kangaroo Island to go on extended foraging expeditions along the coastline (Clarke 1996: 62). The presence of worked ceramics found on the north-eastern and central northern coast of Middle Island appears to be evidence of Aboriginal women brought over by sealers from Tasmania, Victoria or South Australia, and adapting new materials to traditional uses while on foraging expeditions, or staying in womens’ places around Middle Island. These artefacts remain the best evidence yet found for Aboriginal occupation, and the presence of Aboriginal women, during the historic period.
No Aboriginal artefacts were found at the historic site during the 2006 excavations. Archaeological surveys in the area of the granite outcrop between 2010 and 2012 recorded flaked stone artefacts, an edge-ground stone axe, gnamma holes and small, discrete scatters of ceramic fragments on the granite outcrop to the west of the settlement. The stone artefacts may be associated with prehistoric activities, while the ceramic fragments did not exhibit any signs of working or retouch, and therefore are unlikely to be related to Aboriginal occupation during the historic-period.

**Whaling**

The protected anchorage of Goose Island Bay on the north coast of Middle Island was visited by ships for bay whaling, and Middle Island was also used as a shore whaling station. Protected anchorages at Barrier Anchorage and Thomas Fishery on the mainland opposite Middle Island were also used for both bay whaling and shore whaling. The 5km wide channel created by Middle Island and Cape Arid formed a natural pinch point through which migrating right and humpback whales could be more easily ambushed.

The earliest reference to whaling at Middle Island so far located relates to bay whaling. Between 7 June and 30 September 1840 the American whale ships *Julian* and *Hamilton* anchored in Goose Island Bay, and obtained 1200 barrels of black oil. *Hamilton’s* crew set up a camp and lookout on Hawes Island at Barrier Anchorage. The crews went ashore on Middle Island to plant and tend a garden and obtain firewood, and to Goose Island to obtain mutton birds (Dickson 2007: 119-122; PMB 687). The *Julian* also visited Point Malcolm further east ‘where she went bay whaling with the ships’ boats’ (Dickson 2007: 130).

The next located reference is a report on the wreck of the *Vulcan*, Captain Charles Robertson, at Flinders Island, South Australia on 22 April 1845, referring to ‘a newly formed whaling station on Middle Island’:

> Mr. Robertson set sail from Port Adelaide in April last, bound to a newly formed whaling station on Middle Island, in the Archipelago of the Recherche, 700 miles further west than Flinder's Island, on which the *Vulcan* was unfortunately wrecked on the 22nd April. (*LA* 17/7/1845: 14; *CC* 23/7/1845: 14a)


The 35-tons gross schooner *Vulcan* was built by Solomon Cook at Kalgan River, Albany in 1843 specifically for the bay whaling and tonguing trade (Dickson 2007: 279). It was owned by John William Andrews, a sealer and whaler from King George’s Sound and spent the 1844 whaling season at Two Peoples Bay where Williams (as he was known) held a shore whaling lease (ibid). It carried between two and four whaleboats and a crew of 30 men (Garden 1977: 77) and between 1844 and 1845 traded between King George Sound and Adelaide. In shipping intelligence published in July 1845 *Vulcan* was reported to have anchored at Middle Island (*Aust* 8/7/1845: 2).

Thomas Clarence Andrews was an Albany resident, south coast trader and seafarer who as a thirteen year old lived with his brother on Middle Island for eight months in 1889-90 while their father attempted to establish a salt harvesting operation. Writing his memoirs between the ages of 72 and 83, Andrews (1948, 1959) recorded that Middle Island was settled after the sealing period by whalers from eastern Australia:

> A band of honest men with their families crossed the bight and settled on the island, they built good stone houses, made gardens and became self-supporting. So many whales came to the island that the band grew wealthy, in a short time the island became known as the Right whale station of the Bight. (Andrews 1959: 20)

Andrews describes children being born on Middle Island with the population reaching a maximum of 40 persons, and how these settlers were self-sufficient with vegetable gardens, crops of corn and wheat, maintaining goats for milk and capturing tammar wallabies for meat and skins (Andrews 1948: 78, 91). He identifies John Thomas as ‘Thomas of Middle Island’, the leader of a band of Van Diemen’s Land whalers and sealers and one of the ‘earliest pioneers’ of the Great Australian Bight (Andrews 1948: 123; 1959: 91).

Captain James Sale worked as a whaler at Cheyne Beach in the 1860s and recalled that Middle Island was used as a base by whalers from Tasmania including Mr John Thomas, Mr Touser, Mr R. Gamble, Captain Aspinall and Mr T. South who had worked in New South Wales, Port Phillip (probably referring to whaling establishments at Portland or Port Fairy in western Victoria), Kangaroo Island and Holdfast Bay in South Australia:
Each whaler had two or three whaleboats with crews of six. Working westwards these whalers finally arrived at Middle Island situated about 40 miles [sic—4 miles] off Cape Arid. Together with Goose Island this formed a good harbour. These whalers reached there about the middle forties. Mr John Thomas was the owner of the biggest whaling fleets and was the acknowledged leader. He used a good sized vessel the Harpentre [sic—Arpenteur] to bring provisions and take away oil. The base at Middle Island was very successful for a time, but finally the whaling leaders moved into Albany. (WA 7/3/1936: 4)

The 95-ton brig Arpenteur was built in the Seychelle Islands, and was involved in international and Southern Ocean frontier trade. Between 1848 and 1849 it visited the ports of Adelaide, King George Sound, Cape Riche, Cheyne’s Beach, Batavia, Anjer, Singapore and Mauritius. It was blown ashore and wrecked at Cheyne’s Beach while loading oil from John Thomas’ shore whaling station on 7 November 1849 (Sexton 1990: 135, 152; PGLJPN 23/11/1849; Henderson 1980: 230).

John Thomas was the builder, owner and master of a 15-ton cutter Sophia Jane built at Encounter Bay, South Australia and registered at Port Adelaide in October 1840 (Sexton 1990: 63), Encounter Bay being the centre for whaling operations in South Australia at this time. Thomas had earlier bought the wreck of the schooner Fanny (1838) on the Coorong coast (Sexton 1990: 38) probably with the intention of using the salvaged materials in Sophia Jane’s construction. On 2 November 1840 Thomas is recorded arriving at Port Lincoln in Sophia Jane ‘seeking a whaling station’ (Sexton 1990: 68). The next recorded entry for Sophia Jane is John Thomas and Edward Dowsett arriving in Port Adelaide on 17 January 1842 ‘from a fishing and sealing expedition in the Bight’ with a cargo of oil and sealskins (Sexton 1990: 86). In 1843 Sophia Jane was sold and John Thomas appears to be no longer associated with the vessel (Sexton 1990: 93). It was possibly this same John Thomas who was later a partner and leader of Cheynes Beach whaling station between 1846 and 1868-69 (Gibbs 1994: 86), and who in 1862 registered for a shore whaling station on Middle Island with eight members including a boat steerer, a cook, and six pulling hands (McIlroy 1986: 17; Gibbs 1994: 86). He is not the same John Thomas who was master and owner of the 114-ton brigantine Empress built at Swan River in 1846, which sailed from Adelaide to Hobart with Captain Thomas’ wife and child,
and subsequently to Swan River where he became a well-known Fremantle merchant (Broxam 1998: 448; Dickson 2013; Sexton 1990: 126).

From around 1829 to the mid-1840s Launceston and Hobart-based whalers were moving westwards into South Australian waters, and established shore whaling stations along the west coast of South Australia in the Great Australian Bight, at Victor Harbour (1837), Sleaford Bay (1837, possibly earlier), St Peter’s Island (ca.1843), Fowlers Bay (1843-44) and Streaky Bay (at least one, and possibly two stations between 1843 and 1845) (Firth 2006: Staniforth 1998). The Streaky Bay stations included the wife and child of Captain Luttrell with two boat crews and headsmen, with another party of 25 men and three boats operating in mid-1845 (Staniforth 1998: 57-63; SAGCR 16/12/1843). Thus Captain Sale’s recollection of Tasmanian whalers ‘working westward’ following the migratory route of right whales in the 1840s to arrive at Middle Island, and Andrews’ description of settlers ‘crossing the Bight’ corroborate with knowledge of Tasmanian and South Australian whalers’ operations in the Bight, and along South Australia’s west coast at this time.

Tasmanian whalers are also documented as being active in the Archipelago of the Recherche at this time. The 262-ton brigantine Camilla (Captain James Gardiner) was reported off the Archipelago of the Recherche bound for Streaky Bay in October 1843 (Sexton 1990: 89). Between June and July 1845 the Hobart-based colonial whalers Francis (217-ton ship, Captain M. Connor), Harriet Nathan (126-ton barque, Captain Gardiner) and Patriot (189-ton brig, Captain J. Hudspeth) were bay whaling off Cape Arid and Middle Island (Dickson 2007: 286). The brig Patriot returned to Cape Arid in June 1847, and again in June 1848. In 1848 Captain Hudspeth forcibly marooned three men ashore at Cape Arid, who attempted to walk to Cheynes Beach whaling station. Two of the men died of starvation during their ordeal, while John Welch survived to make a complaint to the Government Resident at Albany (Dickson 2007: 334; HC 22/7/1848: 2). Relative to this incident while on a surveying exploration in the Fitzgerald River area around December 1848, Lieutenant J.S. Roe came across a skeleton identified as one of the dead men and buried him under a mound of limestone with a wooden slab ‘in a quiet hollow west of Cape Knob’ (Rintoul 1964: 24).
Gibbs (1994: 86) cautiously dismisses both Andrews’ and Sale’s second-hand reports of a whaling station on Middle Island in the 1840s, believing that ‘while an interesting story and not outside the bounds of possibility, it appears to confuse the history of whaling and sealing in the region’. Marrell (2009: 21) states that ‘the only contemporary evidence of whaling at Middle Island comes in 1862’ and also believes that ‘the accounts of Sale and Andrews must be treated with caution as neither man was involved in the events they were describing’. Andrews was not living on Middle Island during the whaling period, and Sale’s reminiscences do contain some errors. However, neither Gibbs nor Marrell cite the afore-mentioned *Vulcan* references (*LA* 17/7/1845: 14; *CC* 23/7/1845: 14a, b), which provide contemporary evidence for the establishment of a whaling station on Middle Island in 1845.

Although Andrews and Sale were not directly involved in these early settlement events, Sale was involved in whaling at Cheynes Beach in the 1860s and as experienced south coast seafarers both men would have had a sound knowledge of local maritime history. Their accounts must be given some credence, particularly as they offer separate, consistent accounts of the same events on Middle Island relating to a whaling settlement during the 1840s. As a further example of consistency in his historical account, Andrews’ recollection of post-whaling phases of occupation and abandonment on Middle Island corroborates with information contained in official records of government leases issued for salt harvesting and pastoral ventures (Appendix B).

Andrews (1959: 91) also described the abandonment of the Middle Island whaling station:

> Later as the younger members of the whaling family grew to man and womanhood they migrated, consequently the population at the time totalled forty persons decreased and one day the boats were loaded and The Island knew them no more. Forty years passed before The Island was inhabited again when the salt deposits of the lake were collected but after one season the Island was again deserted, a few years later an attempt was made to grow vegetables but the attempt was a failure and again the Island was deserted, another attempt was made to gather salt deposits, but that too was a failure.
There is a passing reference to a ‘whaling party’ at Cape Arid in 1862 (ICN 12/11/1862: 2) which Gibbs considers may be either referring to a whaling station at Middle Island, or a party on the mainland (Gibbs 1994: 86, 94). Gibbs states that Middle Island probably operated as a late season station up until 1879 (ibid).

**Salt harvesting**

Sealers, whalers, traders and commercial salt companies have collected solar evaporated salt from Lake Hillier on Middle Island on an almost continuous basis throughout the 19th and early 20th centuries (Appendix B) (Figure 85).

![Solar evaporated salt crust at Lake Hillier, Middle Island (Ross Anderson/WA Museum).](image)

One report described the quality of Middle Island salt as ‘considered nearly equal to Liverpool, and far superior to Rottnest, salt’ (Inq 5/1/1848: 2). In fact, Middle Island salt required further processing to be fit for human consumption, though ‘the seal hunters found the crude salt an ideal method of preserving the skins’ (Andrews 1948: 83; Andrews 1959: 17).

The demand for salt in the seal skin curing process meant sealing and salt extraction went ‘hand in hand’. Conveniently, the drying of salt lakes and pans in summer coincided with the sealing season. Along the South Australian and Western
Australian coast, sealers were able to collect solar evaporated salt from salt pans and lakes by shovelling the dried salt crust into bags at Kangaroo Island, Rottnest Island and Middle Island, all being easily accessible sources close to protected anchorages.

Salt lakes on Rottnest Island were regarded as an important resource, one of the lakes originally being named ‘Sealers’ Lake’ in 1831 (Abbott 2006: 636). One reporter accused the colonial government of stymying the development of sealing in Western Australia by restricting access to salt:

If a party be formed to make a trial, it is to be hoped they will receive every assistance from the Government, and not be put about as the individuals were who prepared to go to the Southward sealing, and were refused the privilege of taking salt from the Island of Rottenest, without they rented the Lakes for twelve months, which could not benefit them during their absence. The delay gave time for a party to come from Van Diemen’s Land, where salt was 45s per ton, and to take at our very doors the source of great riches – the Seal Skins; at that time the seals being very abundant. (PGWAJ 3/12/1836: 809)

The earliest historical reference to salt being collected from Middle Island is when the schooner Liberty arrived in Sydney in March 1826 ‘from Bass Strait’ with 1500 fur sealskins, two tons of salt and salvage from the wreck of Belinda on Middle Island (SGNSWA 22/3/1826: 2; SGNSWA 29/3/1826: 1). Given the circumstances it is likely that this salt was collected from Middle Island.

Major Edmund Lockyer (1826: 21) wrote of Middle Island that ‘quantities of salt is procured in the season’. Lamenting atrocities committed by the sealers against the mainland Aboriginal population, and referring to the potentially valuable resources of salt and sea fishing in the area, he recommended ‘a smart Government vessel of 150 tons, a cutter with eight or ten guns to visit these islands every now and then would effectually check all these infamous proceedings’ (ibid).

In 1833 Captain Hart in his barque Elizabeth returned to Tasmania after visiting Portland Bay, Kangaroo Island, St Vincent’s Gulf, Cape Leeuwin and Middle Island, with a cargo of 500 fur seal skins, 400 hair seal skins, 1800 wallaby skins, 9 rugs, 20 tons of salt and 2 tuns of oil. He wrote that:
November. Fitted for my third sealing voyage, which was extended to Cape Leeuwin; on this voyage we anchored in the Harbour of Middle Island; discovered close to the beach a lagoon containing fine salt, in such quantities that we took on board 20 tons in three days. (Cumpston 1970: 304)

There are a number of shipping reports through the 1840s and 1850s of a regular trade in Middle Island salt by King George Sound and Adelaide-based interests. The schooner Alpha, Master Edward Dowsett departed Adelaide in ballast for Middle Island in December 1843 returning with a cargo of salt in March 1844 (CC 23/12/1843: 2; SA 1/3/1844: 2). There is an associated personal link with Alpha as Edward Dowsett had previously explored the Great Australian Bight with John Thomas departing Adelaide in the Sophia Jane on a fishing and sealing expedition in 1842 (Sexton 1990: 86). In 1844 Captain Harding of the Emma Sherratt complained about two of his seamen deserting to go in Solomon Aspinall’s boat to Middle Island ‘to procure salt’ (SROWA Cons 348 WAS 1648 Plaints-Albany Courthouse). On 28 March 1845 the schooner Vulcan arrived in Port Adelaide with 25 tons of Middle Island salt (SA 1/4/1845: 2), in April 1846 Thetis arrived in Perth with 16 tons of salt (Inq 15/4/1846: 2), while in March 1851 the crew of the schooner Grace collected a cargo of sealskins, seal oil and salt from Middle Island (Inq 9/4/1851: 1).

In 1890 the government granted a special one year lease (82/550) to E. Andrews to harvest salt on Middle Island. Thomas Clarence Andrews was a thirteen year-old boy at the time, and lived on Middle Island with his brother for eight months, five of them by themselves when their father left them to seek markets for the salt obtained from Lake Hillier. Andrews described their time as boys living at the southern end of Belinda Beach in the vicinity of the fresh water well, and that old stone ruins of a chimney and oven were present on Middle Island when they arrived. They built a prefabricated hut of jarrah slabs fastened with nuts and bolts (Andrews 1959, correspondence to A. Thomas 25/6/1959). He describes the salt harvesting method they used as gathering evaporated salt into heaps using barrows, covering the heaps with mallee bushes and setting them alight to form a crust, in order to protect the heaped salt from erosion by rain until the salt could be bagged (Andrews 1959: 16). When the boys left, they dismantled and took the jarrah hut with them—it was later reused as an annex to an Albany bakery (Andrews 1959, correspondence to A. Thomas 25/6/1959).
In 1903 the government granted E.J. McCarthy and Co., General Merchants, Salt Manufacturers and Exporters in Esperance a ten-year lease of land (3124/03) on Middle Island consisting of i) five acres for shed accommodation and jetty rights in connection with salt works at £3 per annum (549/152) and ii) fifty acres encompassing Lake Hillier for purposes of obtaining salt at £5 per annum (550/152) (Under Secretary of Lands to Minister of Lands 19/6/1905, SROWA WAS 1903/3124) (Figure 86).

Two years into his lease, McCarthy wrote to the Under Secretary of Lands seeking an extension of the lease for a further ten years in order to raise capital:

A jetty has to be constructed, tram lines to be laid, trucks, steam engine, dryer, grinding mills to be provided. Our present plant is too small and the present term too short to induce the investment of the required capital. We have had men working on the Lake since the Lease granted. May we ask your consideration as early as possible. This salt (excepting wool) is the only interstate export from this district. (McCarthy to Under Secretary of Lands 11/4/1905, SROWA WAS 1903/3124)
The government did not grant an extension, though McCarthy proceeded with his plans for expanding the works as two shed frames, tram rails and at least two tramway trucks were landed on Middle Island. In 1914 Government Surveyor D.G. White wrote to the District Surveyor in Perth stating that ‘Originally this island was a whaling station and the 2 wells, in close proximity to the west end of the shed frame were excavated and stoned at that time’ (SROWA WAS 1903/3124 McCarthy salt lease Middle Island). Significantly, Surveyor White—whose focus was on the improvements and equipment left by McCarthy on his expired lease sometime between 1903 and 1913—did not mention any other stone structures or ruins that would support the association of these historic structures with McCarthy’s activities. The only structures mentioned are a 12 x 10 ft (3.6 x 3.05m) wood and iron shed frame situated 2 chains (40.2 m) west of another shed frame, along with six loose sheets of galvanised iron. This would put the wood and iron shed frame in the approximate location of the historic site, where it could well have made adaptive reuse of earlier shore whaling structures such as the flagstone floor (F009) (Figure 87, Figure 88).

Figure 87. Surveyor White’s 1914 compass traverse plan of Lake Hillier (SROWA WAS 1903/3124).
Figure 88. Detail of Surveyor White’s plan with structures marked northwest of Lake Hillier including a 12’ x 10’ room, two wells and a shed frame (SROWA WAS 1903/3124).

It seems that landing the equipment was as far as McCarthy’s plans got, as ‘Years ago a large amount of salt was heaped but no shipment from the Island was made owing, I understand, to a breach of contract. Since then no work has been done and no improvements effected’ (Surveyor D.G. White to District Surveyor 4/8/1914, SROWA WAS 1903/3124).

Surveyor White’s list of equipment and improvements abandoned on Middle Island following the expiry of McCarthy’s lease is as follows:

1. Shed Frame 24’ x 12’ (7.3 x 3.6m);
2. Wood and Iron frame 12’ x 10’ (3.6 x 3.05m) situated 2 chains (40.2 m) west of shed frame;
3. 2 monorail trucks and about 2 dozen tram rails lying on the west end of the Lake;
4. About 50 tram rails lying above H.W.M. on a beach ½ a mile (805m) west of Shed Frame;
5. 6 loose sheets of galvanised iron lying at this 12’ x 10’ (3.6 x 3.05m) room.
(Surveyor D.G. White to District Surveyor 4/8/1914, SROWA WAS 1903/3124)
The corroding remains of tramlines and machinery visible on the western fringe of Lake Hillier are thus related to McCarthy’s failed salt harvesting expansion venture, abandoned sometime between 1905 and 1913, the equipment never having been used (Figure 132).

Following the cancellation of McCarthy’s lease a ten-year lease for Middle Island salt lake was granted to Mr. Charker from 21 January 1915 (McCarthy, E.J., Special lease salt lake Middle Island, SROWA 1903/3124). There is little further information on the extent of this operation, though in December 1920 three men including McKay were living on Middle Island at the time of the wreck of the Penguin, (Disposal of Penguin hull and machinery, Chief Inspector Fisheries to Acting Under Secretary Aborigines and Fisheries Department, 22/12/1920, SROWA 1920/32) who may have been working the salt lease on a seasonal basis.

**Shipwreck salvage**

Shipwrecks provided a valuable source of materials such as cargo, ships’ fittings and scrap metal that could be salvaged, reused and/or resold into economic circulation. Hull planking, timbers, fastenings, rigging, sails and other fittings could be used to construct, repair and fit out smaller boats. Sealers opportunistically salvaged wrecks that could continue to provide salvageable materials for many years after their initial wrecking. For example, George Augustus Robinson, in his travels around Tasmania around 1828-29, described a party of Sydney Aboriginals living with sealers salvaging copper from the Portland, wrecked in 1823 (Plomley 1966: 610).

Following the wreck of Belinda (1824), in March 1826 a public notice advertised ‘A quantity of copper and iron, with two anchors, having been picked up by William Young, Master of the Schooner Liberty, at Middle Island, on the South Coast of New Holland… part of the Wreck of the Brig Belinda’. (SGNSWA 1/4/1826: 1)

Henderson (1995) reported molten lead on the Belinda site indicating burning. It was common practice to salvage metal from wooden shipwrecks by burning the timbers to obtain copper and iron fastenings and ship’s fittings. Belinda’s iron anchors and knees, lead fittings, copper fastenings and copper sheathing would have been a valuable resource. It is possible that this is evidence of Liberty’s salvage activities on the wreck.
On 18 March 1836 John Williams Andrews charged John Anderson with stealing a bag with 50 pounds of flour, two saucepans, an iron pot and other articles from his camp on Michaelmas Island. Anderson stated that he had gone to Michaelmas Island to take off two women that Andrews had taken from him ‘the one from Middle Island the other from Doubtful Island’, and to find out from them if Andrews had taken his skins and ‘an anchor and cable from Thistle Cove that he Anderson had fished up from the wreck of the Mountaineer’ (Albany Court House Records 18/3/1836).

On 27 July 1920 the government steam trawler SS Penguin was blown ashore in the Middle Island anchorage while conducting trawling experiments in the Great Australian Bight (Figure 89). It was to result in at least two phases of salvage and occupation on Middle Island, namely primary salvage by the government of valuable fittings and equipment and secondary salvage by private interests following sale of the wreck by auction.

Figure 89. Wreck of SS Penguin (1920) at Middle Island with bow section in foreground, engine and boiler visible in background (Photographer and date unknown, possibly 1950-60s/WA Museum).

The first phase lasted between 23 July and 22 August 1920 with the government salvage party camped on Middle Island consisting of Captain Talbot, master of the Penguin, and a man named Coleman, supported by extra hands and a diver brought out on the SS Eucla (Talbot to Aldrich 6/8/1920, 30/8/1920, SROWA ITEM
The Fisheries Department was paid out £6000 insurance on the loss, and subsequently bought the wreck for £1000. The SS Eucla made a number of trips to the wreck. The team salvaged £2000 worth of equipment, including a valuable trawling winch that had been borrowed from the navy (SROWA ITEM 1920/32; WA 14/10/1921: 6).

During this time a man named McKay (presumably the same McKay recorded as living with his wife on Middle Island between 1903 and 1905) lived on Middle Island with two other men for around six months between July and December 1920 for reasons unknown, but possibly salt harvesting and/or vegetable growing. McKay was said to have been looking after the Fisheries Department’s interests after the primary salvage party left, by keeping a watch on the wreck (Chief Inspector of Fisheries to Acting Under Secretary Aborigines and Fisheries Department 22/12/1920, SROWA 1920/32).

At completion of the primary salvage the government tendered the wreck for sale. After refusing the highest tender of £50 in July 1921 as too low, the government put up the wreck for auction, where it sold for the even lower price of £20 to Mr C.A. Lloyd of Perth. The lack of commercial interest was attributed to the remoteness of Middle Island and corresponding expense of salvaging the site (SROWA 1920/32).

The next, secondary phase of commercial salvage of the Penguin lasted for three or four months between October 1921 and January 1922, but appears to be of a smaller scale. In January 1922 a police telegram reported that ‘two men, named Richards and MacKenzie, who went to Middle Island...to salvage the wreck of the s.s.Penguin, had probably run out of provisions, because a man who had contracted to keep the men supplied had found that the contrary winds and the condition of his boat had prevented him from carrying out the contract’ (WA 4/1/1922: 6).

In summary, there were a maximum of seven or eight men during primary salvage of Penguin between July and August 1920, and two or three men over three or four months during secondary salvage between 1921 and 1922, all being provisioned from the mainland. The salvors’ camps are likely to have been in the vicinity of the historic site and landing place at the western end of Belinda Beach, or perhaps utilising McCarthy’s shed frames between Lake Hillier and the landing place closer to the wreck, if they were still standing.
In an exchange of letters between journalist Athol Thomas and Thomas Andrews, Athol Thomas reported finding an ‘old hut on the island…these days it is overgrown but the timbers and iron are still fairly substantial’ (Andrews 1959, A. Thomas to T.C. Andrews 23/6/1959). This would logically be McCarthy’s abandoned timber and iron shed frame reported by Surveyor White in 1914 (Surveyor D.G. White to District Surveyor 4/8/1914, SROWA 1903/3124)—though Thomas does not provide a precise location. In reply T.C. Andrews stated that ‘a hut was erected on or about the time of the loss of the Penguin in 1926’ (Andrews 1959, T.C. Andrews to A. Thomas 25/6/1959). Andrews led an expedition to Middle Island in 1916 and does not mention a timber and iron hut standing at this time, though he did report a grass hut still standing in the vicinity of the stone oven used by two men attempting to grow vegetables (ibid).

The occupation of Penguin shipwreck salvage camps have implications for the interpretation of archaeological material found on Middle Island, which may otherwise be attributed to late 19th or early 20th-century salt harvesting or vegetable growing activities.

**Agriculture and pastoralism**

Chapter 7 has provided evidence for sealer’s and whalers’ gardens on Middle Island.

More extensive agriculture was being considered on Middle Island when in 1863 a tillage lease No. 2690 of 400 acres was granted to Mr. G.M. Larnach. However, this was forfeited in 1864 for non-payment of rent. On 28 September 1887 Mr Samuel Thompson, lawyer acting for Mr Larnach, wrote to the Chief Secretary requesting advice as to whether Mr Larnach could take up his forfeited lease by paying back rent for the interceding years. The government’s advice was that this was not possible under the Land Act regulations, nor could Mr Larnach apply for land on Middle Island as it had not been surveyed and was therefore not available for selection. Only land in the Eucla District surveyed as suitable for agricultural purposes could be selected (SROWA 1887/3694). This indicates that agro-pastoralism is unlikely to have occurred on Middle Island between 1864 and 1887.

When Thomas Clarence Andrews lived on Middle Island in 1889, he noted that the gardens established by earlier sealers and whalers had become overgrown with
spinifex. He also mentioned that ‘a couple of years later’ an Adelaide firm put two young men on Middle Island to grow vegetables for the goldfields market, and who lived in a grass hut they built in the vicinity of the stone oven. The venture was given up after two months, but the grass hut was still standing when Andrews revisited Middle Island in 1916 (Andrews 1959, correspondence to A. Thomas 26/6/1959). The garden area is likely to be the flat low-lying cleared ground just south of the historic site, in the area of a stone lined soak well.

Other vegetated islands in the Archipelago of the Recherche were used for stocking sheep including Inshore Island (SROWA 1903/3124), Woody Island (Lease 3106/402, SROWA 1921/0122), Ram Island, Station Island, Thomas Island and other smaller islands close to Esperance (Rintoul 1964: 37). An attempt was made to clear land on Sandy Hook Island, but this was abandoned due to being ‘infested’ with death adders (KM 17/11/1950: 7). Between 1900 and 1903 James W. Innes held a pastoral lease for Middle Island, with the rent paid for the first half of 1900 (Minister for Lands note on file 10/7/1903, SROWA 1903/3124).

In 1928 Figure of Eight Island reportedly had ‘coast disease’ and Middle Island, Woody and Ram Island had ‘poison’, making them unsuitable for stocking with sheep. Other islands in the Archipelago were used for keeping sheep with varying degrees of success including Figure of Eight Island, Thomas Island, Observatory Island, Charles Island and Gull Island (KM 17/11/1950: 7).

In 1914 Surveyor D.G. White wrote of Middle Island that ‘Years ago an English Syndicate cleared 30 acres of the cultivable land on the west but nothing more was done and the area is now overgrown with scrub’ (Surveyor D.G. White to District Surveyor 4/8/1914 SROWA 1903/3124 McCarthy salt lease Middle Island). It was noted on 28 July 1927 that Middle and Goose Islands had previously been held under a pastoral lease but ‘that is now cancelled’ (SROWA 1927/1127 Hawkins lease phosphates Middle Island).

In 1935 the Under Secretary for Mines advised that a pastoral lease on Middle Island 1323/95 was held by N.G.A. Ihlen of East Fremantle (Under Secretary for Mines to F.W. Abbott 28/2/1935, SROWA 1927/1127), though nothing further is mentioned of this.
Overall despite the existence of official files on the subject and leases being issued there is no evidence to suggest that agriculture and pastoralism was conducted to any great extent on Middle Island, apart from clearing of native vegetation and a short-lived attempt at growing vegetables to supply the Kalgoorlie goldfields around the 1890s, that only lasted for two months.

**Proposals for other activities**

Government records show that during the early part of the 20th century other activities were considered for Middle Island that likely involved some visitation. The proposals show how Middle Island remained an isolated place on the maritime frontier, with its potential variously viewed by officials as a place of banishment, or by entrepreneurs as a place with potential for resource exploitation.

In a letter dated 15/12/1905, the Esperance Resident Magistrate wrote to the Minister of Lands suggesting the suitability of Middle Island as a ‘segregated area for Aborigines’ (SROWA 1927/1127). Though this proposal fortunately never eventuated, from a legal and socio-historical perspective the correspondence is notable for discussing racial segregation at an official level.

In May 1866 the schooner *Adelaide* departed Adelaide for Middle Island and the coast with a ‘party of prospectors’, returning in June. By its description this expedition was probably mounted to assess Middle Island’s potential for phosphates or minerals, though nothing more is heard of this (OMA 10/5/1866: 2; AE 8/6/1866: 2). Following representations in 1927 the government issued a lease for phosphate mining on Middle Island and Goose Island, though this was apparently not taken up (C.W. Hawkins to the Minister for Mines 19/7/1927 (Under Secretary for Mines to Minister for Lands 27/9/1927; Under Secretary for Mines to C. Hawkins 16/12/1927, SROWA 1927/1127). Another proposal to ‘stock the island with opossum, plant it with gum trees and keep a game warden’ for the purpose of ‘fur farming’ never eventuated (Under Secretary for Lands to Under Secretary for Mines 17/1/1929, SROWA 1927/1127).

The following year in 1928 Scott and Carr sought government funding for an ambitious company immigration and resettlement scheme using Middle Island as a base from which to exploit the scattered resources of the Archipelago. ‘Sea people’
and their families from places in the United Kingdom such as the New Hebrides would be engaged in a variety of economic pursuits such as farming, fishing, sealing, salvaging the wreck of the SS Penguin and operating a salt works and fertiliser works (SROWA 1928/0181). However visionary it may have been based on the finite nature of some of the resources, this scheme did not eventuate.

**Fossicking and site disturbance**

Appendix B provides a detailed timeline for human activity including phases of occupation’ on Middle Island that would have been likely to have reused the same structures and areas of the historic site, with attendant disturbance, modifications and the introduction of more recent material. There are accounts of fossickers and treasure hunters disturbing and demolishing structures in search of buried treasure in the 19th and 20th centuries, reputedly left by sealers and whalers such as Williams (possibly John William Andrews) and John ‘Black Jack’ Anderson.

In giving a reason for the settlement’s abandonment, Andrews (1959: 20-21) states that:

> When the Mammals went on their way the hunters went Sealing, when they had collected enough Seal Skins, Whale-bone and oil they loaded their little ships and went out to meet the Foreign Whale ships that hunted in the Bight and sell their catch to them. They shared equal in the profits which were fairly large, Each man knew how much Gold each other got, On one of their Sealing trips away from the home Island one of the hunters was accidentally shot, before he died he was asked had he any last wish all he could say that he wanted to be buried on the Island where his Gold was, He was a single man with no relatives, they all knew he had saved a large amount. Soon after he died the little band left the Island, since then the houses have been pulled down by Treasure hunters seeking the dead Whalers hoard, we spent many hours turning over stones that had been turned over many times. We did find the man’s grave and cleaned it up just to show he was not forgotten. The ruins of the one time good houses are now overgrown with scrub which, perhaps, covers the dead mans Gold’.
Andrews goes on to state that ‘When we did return home the main question asked us was did we find any treasure, We didn’t find any treasure but we often looked for it…’ (Andrews 1959: 20).

Esperance resident and commercial diver Clive Trevan lived on Middle Island for nine weeks in 1972 and reported that he searched for underwater sites, located the grave of Charles Douglas, and admitted to removing at least one artefact—an 1832 brass halfpenny (EE 24/2/2000). A group of metal detectorists visited Middle Island in 1996 and recorded that ‘An expectant search of the drystone wall enclosure in the paperbarks reveals nothing. One of the sites has stone flags on the floor. There is nothing under these either’ (‘Black Jack’s Gold’, WA Big Weekend 6/4/1996: 5).

During the WA Museum’s 2001 inspection of Middle Island, the stone hearth (F003) showed evidence of having been dug out by modern fossickers (Green et al. 2001) (Figure 90). A range of what appear to be surface collected finds of bottles and ceramics had been placed on the chimney structure (F001).
Figure 90. Stone hearth (F003) in 2001 showing evidence of disturbance by fossickers (Patrick Baker/WA Museum).

Summary of Middle Island activity phases

Historical research undertaken for this study has provided detailed information on different phases of activities on Middle Island. These are provided in further detail in Appendix B, with the main periods of visitation and occupation summarised in Table 3 below.

Table 3 Major phases of visitation and occupation on Middle Island

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;11,000-9,000BP</td>
<td>Prehistoric use before Middle Island was separated from the mainland by sea level rise</td>
</tr>
<tr>
<td>1627-1803</td>
<td>European exploration, including Captain Matthew Flinders’ visits and surveys in HMS Investigator 1802-1803</td>
</tr>
<tr>
<td>1810</td>
<td>Possible earliest date of visitation by colonial sealers</td>
</tr>
<tr>
<td>Year</td>
<td>Event description</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1824-1825</td>
<td>Belinda shipwreck and survivors camp (26 men, 6 months). Shipwreck salvage, sealing and salt collecting by Nereus and Liberty</td>
</tr>
<tr>
<td>1825-1842</td>
<td>Seasonal and semi-permanent occupation by colonial sealers (5 to 15 people).</td>
</tr>
<tr>
<td>1840</td>
<td>American ships Hamilton and Julian bay whaling (4 months)</td>
</tr>
<tr>
<td>1845-1850s</td>
<td>Tasmanian bay whaling, and semi-permanent occupation by Tasmanian and/or South Australian shore whalers (up to 30-40 people). Regular shipping trade in Middle Island salt.</td>
</tr>
<tr>
<td>1862-1879</td>
<td>Seasonal Western Australian colonial shore whaling in Middle Island and Cape Arid area including Barrier Anchorage and Thomas Fishery (up to 12 people)</td>
</tr>
<tr>
<td>1889-90</td>
<td>Seasonal salt harvesting by Andrews boys (2 boys, 8 months)</td>
</tr>
<tr>
<td>1900(?)</td>
<td>Vegetable growing for Kalgoorlie goldfields (2 men, 2 months)</td>
</tr>
<tr>
<td>1903-05</td>
<td>Seasonal salt harvesting by E.J. McCarthy (2 people over 2 years)</td>
</tr>
<tr>
<td>1915-1925(?)</td>
<td>Seasonal salt harvesting by Mr Charker (2-3 men)</td>
</tr>
<tr>
<td>1920</td>
<td>SS Penguin primary salvage camp (7-8 men, 1 month)</td>
</tr>
<tr>
<td>1921-22</td>
<td>SS Penguin secondary salvage camp (2 men, 3-4 months)</td>
</tr>
<tr>
<td>1920s-present</td>
<td>Temporary camping and fishing activities</td>
</tr>
</tbody>
</table>

**Archaeological research questions**

Between 15 and 26 April 2006, a combined University of WA and WA Museum archaeological expedition led by Dr Alistair Paterson (UWA), funded by a UWA Research Grants Scheme project, investigated sites related to sealing and whaling in the Archipelago of the Recherche including Middle Island and Boxer Island. The team included Esperance Area Traditional Owner Ron ‘Doc’ Reynolds, staff and students from the University of Western Australia and staff from the Western Australian Museum’s Department of Maritime Archaeology, including the author.

The archaeological research and site management framework for the 2006 UWA/WAM Middle Island excavations was as follows (Paterson and Souter 2006: 9):
1. To survey archaeological remains of a possible whaling/sealing site on Middle Island and collect archaeological samples through excavation of activity areas (e.g. structures and concentrations of archaeological material);

2. To analyse archaeological material to understand the timing, nature, organisation and character of colonial whaling and sealing extraction on Middle Island;

3. To compare the archaeological findings with historical descriptions of the whaling and sealing industries, both in Western Australia and eastern colonies;

4. To establish protocols for research and management into sealing and whaling sites on the south coast;

5. To develop a working relationship with other agencies and community groups with interests and responsibilities in the historical and future use of these islands.

As part of this thesis, in relation to the research aims stated in Chapter 1, further archaeological research questions for the Middle Island historic site are:

1. Can any of the archaeological features be positively correlated with the historical activities outlined in Appendix B?

2. What disturbances have occurred on the archaeological sites due to subsequent activities, development or interference?

3. Can structures and areas be attributed to specific industries and periods? And

4. Is there any evidence for the presence of women, children or Aboriginal involvement in historic activities on Middle Island?

**Archaeological research methods**

Following the research methods outlined in Chapter 4, historical information specific to Middle Island was gathered as part of the broader historical survey for the Archipelago of the Recherche, with a specific aim of identifying already located, or potential archaeological sites and features.

Archaeological data obtained from surveys and excavations conducted between 1984 and 2013 was collated including reports, journal articles, photographs, survey plans, excavation records and artefact databases and collections.
Description of historical archaeological features and summary of 2006 Middle Island excavation results

The 2006 expedition to Middle Island was limited to five days and included site clearing, excavation of six one metre squares and two features. The expedition recorded ten archaeological features in the vicinity of the historic site (Paterson and Souter 2006: 20-21) (Figure 91) with other features noted on the granite outcrop immediately west of the precinct, and along the edge of Lake Hillier to the east.

![GIS map of archaeological features and artefacts recorded at Middle Island historic site in 2006 (Paterson and Souter 2006: 20).](image)

The Middle Island historical settlement has a number of substantial stone features that appear to represent at least two, and possibly three main building structures. The majority of the structures are situated within a 30 x 40m precinct set back from the north-east corner of Belinda Beach including a chimney/ fireplace (Feature 1 (F001)), a low lying stone wall (F002) and hearth/ fireplace (F003) connected by a flagstone floor (F009), a stone lined well (F003), a stone wall/ possible fireplace (F005) a stone-lined soak well (F007) and other unidentified features (Paterson and Souter 2006) (Figure 92).
Figure 92. Middle Island historic site main precinct with key features numbered (Ross Anderson UWA/WAM 2006).

The fireplace (F001) and buried remains of a wall foundation south of F005 appear to be associated as parts of a single structure, while F002, F003 and F009 appear to be a two-roomed structure, consisting of one room with a hearth and another surrounded by a low-lying wall joined by a flagstone floor or path. Other historical features constructed with stone lie outside of this precinct namely a combination fireplace/oven (F006) located 110 metres south, and a gnamma hole that has been
enlarged with a dam wall with an associated garden bed on the granite outcrop west of the precinct.

Three main areas for investigation were cleared of vegetation and leaf litter, with the archaeology team divided to work in two main zones described as Zone 1 (southern area including F001, F005, F008, F010) and Zone 2 (northern area including F002, F003, F004 and F009), as well as F006 200m from the main settlement site. Over five days a total of eight test excavations were completed consisting of six 1 x 1m squares K11(F006), K12, K16, K19, J21 and P33, and excavations of internal spaces of F003 (hearth) and F007 (shallow well).

No cultural deposits exceeded 50cm depth of burial and most material was concentrated within the first 26cm. The stratigraphy was fairly uniform across the site consisting of an upper layer of humic material overlying grey sandy soil interspersed with rocks and tree roots. All material was sieved through 6mm and 3mm mesh with samples bagged. No Aboriginal artefacts were located in the course of the excavations.

All artefacts were registered into the Western Australian Museum’s artefact collection. Archaeology Honours student John Marrell (2009) undertook post-analysis of metal, ceramics, glass and bone artefacts recovered during the 2006 expedition and interpreted the site and structures based on artefacts’ distribution, context, density, type and date range, along with available historical evidence.

Additional features identified between 2006-2014 follow the same consecutive feature numbering system of Green et al. (2001) and Paterson and Souter (2006: 20-21), to encompass all historical archaeological sites that have been located on Middle Island to date.

The following paragraphs provide descriptions and interpretation of the Middle Island structures based on the archaeological evidence from the 2006 excavations, and historical research and archaeological fieldwork conducted between 2008 and 2014 as part of this research.
F001 Stone fireplace

Feature 1 (F001) is a partially collapsed stone fireplace constructed of granite slabs cemented with soft mud or lime mortar, with dimensions of 1.5 x 1.65m, and a maximum height of 1m (Figure 93). It has collapsed to the north and south. Surface finds included glass bottle bases and necks (MIR16) dating from the late 19th century.

Figure 93. Stone fireplace (F001) view west (UWA/WAM 2006).

Square J21

Square J21 was positioned 2m east of fireplace F001 (Figure 94) placing it in the assumed interior floor space of any associated structure. Along with excavated grid squares K12, K16 and K19 the stratigraphy exhibited an upper layer of brown/grey humic sand caused by decaying vegetation mixed with artefacts and charcoal, overlying a grey sandy layer also containing a cultural layer of artefacts and charcoal (Figure 95).
Figure 94. Alistair Paterson recording square J21 with fireplace (F001) in background (UWA/WAM 2006).

Figure 95. North section of square J21.

A cultural layer with extensive charcoal, ferrous metal and fragmented bone remains was located to a depth of 21cm. Faunal remains included fish bones and tammar wallaby bones—the latter mainly fragmentary with some evidence of burning.
Architectural material included corroded fragments of wire nails (common on Australian historical sites after 1850) and double strand twisted wire, along with unidentified small and large pieces of corroded iron. Datable artefacts included a ‘hole in cap’ tin can (1810s-c.1870s) and a small red transfer printed ceramic fragment, possibly from a cup (1818-present). Charcoal and small pieces of ferrous metal continued to be found to a maximum depth of 54cm. Due to the number of wire fencing remains and highly fragmented faunal bone recovered from J21, along with historical information that in 1889 the Andrews boys converted an existing chimney fireplace into a pig sty (Andrews 1959), Marrell (2009: 89) interpreted F001 as being probably associated with the whaling phase, subsequently reused by the Andrews boys in 1889.

**F002 Stone hut/ room walls**

Feature 2 (F002) is a low-walled, four-sided, stone wall construction with a doorway opening on the south side (Figure 96, Figure 97).

![Figure 96. Low stone walls forming a room (F002) with flagstone floor (F009) (UWA/WAM 2006).](image)

It is associated with a flagstone floor (F009) and stone hearth (F003). The combined features appear to form a two-roomed structure joined by a flagstone floor. There is evidence of mortar used in the construction of both F002 and F003. F002 has dimensions of 2.75 x 3.0m, a maximum height of walls 35cm and a door width of 1.10m. The walls have partially collapsed, and some sections have possibly been
rebuilt/ repaired at some stage. The interior of the structure was cleared for recording but not excavated, with the flagstone floor left in situ as an intact feature suited to public interpretation of the site.

Figure 97. Plan of Zone 2 depicting features F002 low stone walls, F003 stone hearth, F009 flagstone floor, and excavated square P33 (Ross Anderson after Sean McKay and Sam Bolton) (UWA/WAM 2006).

The low stone walls (F002) along with the flagstone floor (F009) and hearth (F003) appear to have been constructed as part of an intended semi-permanent or permanent timber or canvas structure. In New Zealand at Taieri Island during the 1840s whalers were described as living in ‘grass huts’, with excavations revealing lower sections of walls made with beach pebbles cemented together with sand and possibly lime, likely having timber walls and grass thatched rooves (Coutts 1976: 296). Early Australian rural houses included timber-framed tents with adobe infill as lower walls (Lewis 1977: 37, 71)
Figure 98). It is possible that F002 was a similar type of structure for a canvas and/or timber structure using the stones to provide an extra level of permanency and protection from weather and animals.

![Figure 98. Wooden-framed canvas tent with in-filled adobe brick walls in Victoria circa 1850s (Lewis 1977).](image)

**F003 Stone hearth**

A stone hearth (F003) for a fireplace with dimensions of 1350 x 700mm is associated with F002 (flagstone floor) and F009 (low drystone wall) (Figure 99, Figure 100). During a previous site inspection in 2001, F003 showed signs of disturbance having been partially dug out by fossickers (Green et al. 2001). A single, loose sheet of corrugated iron was lying in an area of wall collapse on the southern side that did not appear to be associated with the structure, or its reuse. The hearth was constructed using large granite slabs placed in the ground edge-wise to a depth of 50cm, one large slab with dimensions of 1700 x 500 x 100mm being used to create the front sill of the hearth. A combination of slabs and smaller granite boulders fixed with a soft mud or lime mortar were used to brick up the three sides to form an enclosed fireplace. Given the absence of other significant stone remains this structure is interpreted as having been originally constructed as part of a timber building, with a timber chimney.
Figure 99. Stone fireplace/ hearth (F003) with flagstone floor (F009), view northwest (F009) (UWA/WAM 2006).

Figure 100. F003 hearth after clearing and before excavation, view southeast (UWA/WAM 2006).

F003 excavation

The internal cavity of F003 was excavated to reveal an upper cultural later reaching to 8cm depth containing both intact and fragmented tammar wallaby (Macropus
eugenii) bone, a small amount of fish bone, a piece of abalone shell and a degraded piece of whalebone. Artefacts included a metal rod (possibly related to fireplace function), some corroded iron nails, small undiagnostic glass bottle fragments and a small, undiagnostic clay pipe stem fragment. The 2006 excavation continued beyond the internal depth of the structure as charcoal was still being found, however it was determined that the soil was probably charcoal rich (Figure 101). The stratigraphy did not provide any conclusive evidence for particular periods of occupation. Excavation of grid square P33 and surface collections in proximity to F003 and F009 features recorded the highest concentration of whalebone recovered from excavations across the site (Appendix D; Marrell 2009: 73).

Figure 101. F003 hearth at completion of excavation (UWA/WAM 2006).

F004 Circular well
A hand-dug, stone-lined well over two metres deep (Figure 102, Figure 103) and 70cm diameter has been reused and maintained during various phases of activity on the island. Andrews (1959) described one freshwater well when he arrived on the island in 1889, which he and his brother utilised. Surveyor White recorded the history of the island as having been a whaling station, with two wells excavated and stoned by whalers’ prior to McCarthy’s salt venture in 1903 (SROWA 1903/3124). This reference is of interest as it implies another, similar well is in close proximity to F004, but has perhaps suffered collapse or been filled in. The design and
construction of the well suggests it was built by a skilled and knowledgeable person(s).

Figure 102. Stone lined well F004 (UWA/WAM 2006).

Figure 103. Interior view of well F004 in 1991 (Patrick Baker/WA Museum).

The well casing is circular in section, and has been constructed using flat granite rocks of similar dimensions, some possibly worked, in staggered, brickwork fashion infilled with some smaller stones. There is no evidence of mortar used in its construction. The well is sited at the eastern end of the historic settlement precinct.
furthest away from the granite outcrop, probably at the lowest point of the impermeable rock outcrop’s underground profile to maximise access to groundwater levels during dry conditions. Drystone construction would have allowed fresh water to seep into the well. Similar methods were used by Western Australia explorer Charles Cooke Hunt when digging wells in proximity to granite outcrops along the Perth to goldfields route between 1864 and 1866, using a labour force of 17 men (Sketch of a well 1894, National Trust of Western Australia (2007)). Mariners and whalers commonly dug beach wells to access fresh water springs or lenses of fresh water overlying the higher density salt water table or impermeable rock. In the early 1840s American bay whalers visiting Koombana Bay, Western Australia combined resources to dig large beach wells, lining them with timber to give them greater permanency (Anderson 2016: 40).

The well was described as having sweet water in 1996 (Bindon 1996: 25), though in 2012 was found to be stagnant. Being indicative of the need for a permanent, reliable supply of fresh water outside of the winter rainfall season, the location, design and construction of the well is strong evidence for a well-organised group of people occupying the site on a long-term basis. Having a plentiful supply of water would also make it possible to trade with passing vessels, adding to the island’s economic resource base.

**F005 Stone feature**

A semi-circular stone rubble feature south of F001 is possibly a collapsed part of the western wall of a structure associated with fireplace F001 (Figure 104). Grid square K16 was positioned east in the assumed interior of the feature, with the aim of picking up sub-floor remains if it was an interior space, and to assist in identifying the structure’s function. The excavation did not reveal any buried structures such as wall foundations.
Figure 104. Feature 5 (F005) view south prior to excavation (UWA/WAM 2006).

Square K12

Squares K12, K16 and K19 were sited along a north-south axis to investigate further stone features and potential floor levels/cultural layers south of F001 (Figure 105).

Square K12 investigated a rubble concentration south of F005 that revealed an intact stone wall foundation that aligns with F001 (Figure 106, Figure 107). Reaching a maximum depth of 31cm, artefacts from K12 included corroded iron, shell, an olive coloured bottle sherd, pieces of white clay, and a fragment of ceramic tableware (MIR5860—probably from a flat plate or dish) with a black transfer print dating between the 1830s-1920s.

Marrell (2009: 88) interprets this buried wall structure as a ‘possible storeroom associated with 20th century salt mining’, although this does not correlate with historical information for McCarthy building iron and timber framed sheds (Surveyor D.G. White to District Surveyor 4/8/1914, SROWA 1903/3124). Rather, the spatial location and alignment of the wall suggests it is the southwest corner of the western wall of a building related to F001 (Figure 105, Figure 106).
Figure 105. View north showing alignment of wall foundations in square K12 (foreground), with stone wall F005 and fireplace F001 in left background. Squares K16 and K19 are visible in the centre background (UWA/WAM 2006).

Figure 106. Square K12 showing intact buried wall foundations at completion of excavation, view west (UWA/WAM 2006).
Figure 107. Square K12 north section (UWA/WAM 2006).

Square K16

At grid square K16 adjacent to F005 a 1 x 1m excavation to 49cm depth recovered mostly small, undiagnostic fragmented finds of glass, charcoal and corroded metal artefacts. Datable artefacts from an upper unit (U003) of sandy loam between 3cm and 8cm depth included fragments and lids of ‘hole in cap’ food cans (dating from 1812 to the 1870s) and a Winchester ‘New Rival’ type ammunition cartridge (1897-1904) (MIR5858). Between this layer and up to around 30cm depth (U007) datable artefacts included both fragments of corroded hole in cap food cans, and some intact examples (MIR5954). Tinned food cans were first patented in Britain in 1810 and were in use from 1812 (Busch 1981: 96). Foods preserved in hole in cap cans were commonly available from the 1840s, and hole in cap cans were also found at Adventure Bay whaling station that operated between 1829 and 1841, indicating imported preserved foods formed part of Tasmanian whalers’ provisions at this time (Lawrence 2006: 80). Other artefacts include turn-key type can openers (dating from 1866 to the present) (MIR5953), wire-type nails (available from the 1840s but more commonly available from the 1870s), a 0.22 rifle cartridge (1858 to the present) (MIR5861) and a small fragment of blue and white transferware (possibly blue willow pattern) tableware (1784-present) (MIR5944) were found. Overall the artefacts suggest the remains in square K16 are associated with a mixed range of activities dating from the 1840-60s mixed with later use from around the turn of the century.
Square K19

Square K19 was excavated to a depth of 44cm with the upper 5cm depth including tammar wallaby (*Macropus eugenii*) bone, shell, glass and a 19th-century clay pipe stem fragment marked ‘London’ (MIR12), the latter with no associated maker’s mark to establish a precise date range for its manufacture. The cultural layer extended to 26cm depth with material including bone (tammar wallaby, lizard and a fish vertebrae), corroded hole in cap can fragments and a fragment of a glass bottle base (MIR5962). A blue glass bottle fragment (MIR6067) found at 14cm depth dated from 1845.

Overall the few datable artefacts found in square K19 are consistent with a mid-late 19th century date.

F006 Fireplace and oven

Feature 6 (F006) is a large fireplace/oven with a collapsed chimney located 110 metres southwest from the main historic site (Figure 108). It is constructed of flat granite slabs and boulders joined with a friable, grey coloured mud or lime mortar, and is raised on a stone platform. It has a double compartment hearth with a large main open fireplace with a chimney, and smaller oven or compartment off to one side. Both compartments are joined by a small cavity, and the smaller compartment was at one time capped with flat stones, now mostly collapsed. Andrews (1959, correspondence to Athol Thomas 25/6/1959) reporting finding a ‘large oven’ on Middle Island in 1889, which he and his brother subsequently used.

Square K11

Grid square K11 was placed to the south and front of F006 (Figure 109) to attempt to locate any datable cultural deposits and reached a maximum depth of 24cm. Artefacts recovered between 3 and 15cm depth included non-diagnostic corroded iron fragments, an olive glass bottle base fragment exhibiting a conical push-up (date of manufacture between 1785 and 1850) and a broken iron boot heel, that appeared to be a man’s size.
Figure 108. Stone combination oven/ fireplace (F006) after clearing, view north (UWA/WAM 2006).

Figure 109. Plan of fireplace and oven (F006) showing the two compartments, and location of 1m grid square K11 (Ross Anderson UWA/WAM 2006).
This feature warrants further discussion regarding its intended use, as various possible functions including an oven, a blacksmith’s forge and a brine boiling furnace used for salt harvesting have been considered.

Forges were used in early sealing, whaling and agricultural settlements (Arnott n.d.; CSO 1845: 1268). Unlike a boatshed or tryworks, it would not necessarily need to be close to the water’s edge. On a whaling station, a forge could be used to make iron bands for coopering casks and making and repairing tools, whale-craft, fastenings and boat fittings. While a forge could appear to be an open fireplace they were usually designed to be at a working, waist height level, and needn’t have an oven attachment.

Being necessary to bake bread and other food for large workforces, ovens have been located at other 19th-century shore whaling stations. At Malus Island shore whaling station that operated from 1870 in the Dampier Archipelago, northwest Western Australia, a square, 1m high baking oven was constructed of stone (McIlroy 1987: 91, 97). At Adventure Bay whaling station on Bruny Island, Tasmania, Lawrence (2006: 54) describes a ‘substantial mound of earth and rubble’ located 10-20 metres inland and at a slightly higher elevation from the main whaling habitation site. Excavating this collapsed structure in hope of it being a fireplace chimney for a workers’ hut, the archaeologists were disappointed to find nothing but rubble, and no evidence of any associated structure such as timber or stone walls. Lawrence (2007: 54) speculates that bricks were robbed out of this fireplace causing the chimney to collapse, and the rest of the building had been ‘entirely destroyed’. The spatial context of a stand-alone chimney-like structure situated further inland at a shore whaling site and the lack of associated artefacts is relevant to this discussion of F006.

Another possible function considered was for processing Lake Hillier salt using a brine boiling method, although further research found it does not compare with other structures used for this purpose in the Australian context (Rogers 1993). In discussing the terms of his lease and plans for future developments including a installing a grinding mill, dryer and a steam engine at Middle Island in 1905, McCarthy requested facility for exemptions in case of excessive rains (SROWA 1903/3124 McCarthy to Minister for Lands 15/12/1905). Clearly, McCarthy was not
planning on boiling brine but simply harvesting evaporated, or partially evaporated solar salt. Therefore, it is unlikely that F006 was intended to be used as a brine boiling furnace. Following the above considerations the structure is interpreted to be a combination fireplace with an oven.

Two possible explanations for the location of F006 being situated 110m from the main historic site is possibly because any timber surrounding the immediate habitation area had been cleared for firewood, gardens and livestock, so it was situated further inland closer to sources of firewood. It may also have been an oven/fireplace for a headsman’s house, typically situated further away from workers huts in other Australian shore whaling stations. As the fireplace faces south into prevailing southerly winds this is some spatial evidence to suggest it was originally situated within, and protected by a building. During a survey led by the author following bushfires in 2011, a fallen tree 15 metres north of F006 contained broken ceramic and glass artefacts trapped in its root ball, indicating the potential for further subsurface material to be found in the vicinity of F006.

Corroborating the available historical and archaeological evidence, F006 is interpreted as a combination fireplace and oven built during the early whaling phase (1840-60s).

**F007 Oblong soak well**

A shallow, 50cm deep, oblong-shaped soak well lined with three courses of dry stone walling is situated in low-lying marshy ground, approximately 20m south of the main historic precinct (Figure 110, Figure 111). Differing in design to the deep, circular well F004 this well is of a soak well type, designed to allow water from surrounding shallow, swampy ground to seep into and collect in the well. The well was cleared of vegetation for recording, with one body fragment of green bottle glass found. The simplicity of F007’s design and construction is not comparable to the skills and labour required to build the circular 2m deep well (F004)—it could be built by one or two people within a day—and unlike F004 did not contain any fresh water at the time of 2006 expedition. Based on the historical account of the Andrews boys building a well during their stay (1889-90) the historical and archaeological evidence corroborates to suggest the well was most likely constructed by the Andrews boys in 1889-90.
Figure 110. Shallow oblong soak well (F007) view south (UWA/WAM 2006).
F008 Unidentified stone feature

A mound of stone rubble situated southeast of F005 was discovered after further clearing of vegetation in the area, and appears to be remains of a collapsed wall or fireplace (Figure 112). It was not able to be excavated within the 2006 expedition time frame, though could possibly indicate the south-eastern edge of the structure associated with F001 and F005.
**F009 Flagstone floor**

An impressive feature of the site is the flagstone floor made of large flat granite slabs closely fitted together (Figure 113), which covers an approximate 5 x 8 metre square area and indicates the ground surface level has not changed markedly in this area. The layout suggests a two roomed structure including F003 and F002 joined by this flagstone floor or path.

![Flagstone floor (F009) with square P33 being excavated in centre, view south (UWA/WAM 2006).](image)

There is comparative evidence for shore whaling stations having two or three roomed structures with stone-paved flooring. Lawrence (2006: 55-59) describes a two or three-roomed cottage (one room had an additional internal space with a timber wall) with flagstone paving at Adventure Bay, Bruny Island, Tasmania, identified as a headsman’s house. A three-walled structure with dimensions 3 x 3.5m just east of the cottage had some large flat paving stones thought to have been a path connecting the two structures (Lawrence 2007: 56, 90). Other two-roomed structures at Adventure Bay and Lagoon Bay identified as headsmen’s’ and whalers’ residences were made of timber, bark or wattle and daub with stone wall footings, stone fireplaces, and both paved and earthen floors (ibid). At the site of Cheynes Beach whaling station on Western Australia’s south coast McIlroy (1987: 14)
located a small, single room, stone-walled hut of dimensions 3.8 x 2.6m, with a section of floor outside the stone walls paved with trimmed whale vertebrae. Gibbs (1995: 203) further excavated this structure, which he re-interpreted as a two-roomed domestic dwelling, the ‘outdoor’ whalebone paving being situated inside a second room constructed of timber.

Square P33

Square P33 was placed one metre south of the edge of flagstone floor (F009). Artefacts visible on the surface included a large disintegrating whale vertebra (Figure 114), and this area was therefore selected to investigate the potential for further associated cultural materials.

Figure 114. Disintegrated whale vertebra (UWA/WAM 2006).

Whale vertebrae were used in the construction and furnishing of shore whaling station structures, such as for floor paving blocks as in the case of Cheynes Beach whaling station described above (McIlroy 1987: 14; Gibbs 1995: 207), chopping blocks, stools and chairs (Lawrence 2007: 131-132; Miles 1998: 86). The majority of whalebone fragments recovered during the 2006 expedition were surface collected from F003, F009 or excavated from grid square P33 in close proximity (Appendix D). Its presence both on the surface and contained within the stratigraphy of the site
is significant, as whalebone is considered to be a likely indication of whaling activity.

The surface area was cleared of leaf litter, a dead tree trunk and a loose sheet of corrugated iron, and surface artefacts collected. An upper layer (3-5cm depth) of sandy grey soil included burnt whalebone, lamp glass fragments, iron wire-type nails, bottle glass, faunal bone fragments and charcoal. The square was excavated to a maximum depth of 26.5cm where it met an impenetrable layer of thick tree roots. Other artefacts recovered included small glass and ceramic fragments, body fragments from a light aqua-coloured pickle jar, corroded iron nails and wire fragments, a hand-made fish hook made of copper wire, a copper tack, marine shell, faunal bone fragments and charcoal.

Marrell (2009: 89) interpreted the two roomed structure with flagstone floor as being ‘probably associated with workers from McCarthy’s venture’ (Marrell 2009: 66-67, 89) and that the diverse collection of artefacts found in square P33 ‘could be a random accumulation…caused by sweeping or some such maintenance exercise’ (ibid: 79). However historical research does not corroborate with an interpretation of a two-roomed structure being associated with Esperance salt merchant E.J. McCarthy’s salt harvesting venture. McCarthy is only recorded as having built a wooden and iron shed frame with dimensions 12 x 10 feet (3.6 x 3.04m) in this area (Surveyor D.G. White to District Surveyor 4/8/1914, SROWA WAS 1903/3124), which does not accord with the construction, layout or dimensions of this structure.

Overall the archaeological findings support an interpretation of an earlier period (1840-60s) structure and floor being reused during the late 19th and early 20th century. While the few datable artefacts excavated from grid square P33 and F003 point to an early 20th-century date, this is consistent with later episodes of occupation. These include the two Andrews boys who lived on the island for 8 months in 1889-90, two unidentified men growing vegetables for the goldfields who lived on Middle Island ‘a number of years’ after 1889-90 (Andrews 1959: 91), McCarthy’s workers McKay and his wife between 1903 and 1905 (SROWA WAS 1903/3124), and salvors of the SS Penguin between 1920 and 1922 (SROWA WAS 1921/20; SROWA WAS 1920/32). As a cleared, paved area close to the beach
landing place and the stone-lined well, that was described as still having sweet water in 1996 (Bindon 1996: 25), this is a site ideally situated for reuse.

**F010 Stone rubble feature**

A mound of rubble located directly north of F001 appears to be the remains of a collapsed wall, fireplace or other structure (Figure 115). Being in close proximity, it appears to be related to the fireplace F001. It was cleared for recording, but was not excavated.

![Stone fireplace F001 with stone feature F010 in foreground](image)

**Figure 115. Stone fireplace F001 with stone feature F010 in foreground, view southeast (UWA/WAM 2006).**

**F011 Stone edging arrangement**

This feature lies approximately 10m ESE of the main settlement area in thick scrub and consists of a semi-circular arrangement of granite slabs placed vertically in the ground (Figure 116), possibly as edging for a garden bed or an animal pen. It was cleared and photographed, but not excavated.