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**The Maritime Archaeology
and Maritime Cultural Landscapes of Queenscliffe:
A Nineteenth Century Australian Coastal Community.**

**Thesis submitted by
Brad Gregory DUNCAN B SocSci (Hons) *JCU*
In October 2006**

**For the degree of Doctor of Philosophy
in the School of Anthropology, Archaeology and Sociology,
James Cook University**

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This thesis is dedicated to my late mother, Shirley Duncan (nee Ashcroft) who germinated the seed of archaeological enquiry in a young mind, and to my children, Emily and Liam, who gave me the inspiration to tend it through to fruition. I could not have done it without your support and love.

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Abstract

This thesis develops a new methodological approach to the archaeology of Australian Colonial maritime landscapes and communities, based on a critical reading and evaluation of international advances in cultural landscape theory and research. It explores the full range of possible maritime sites situated both above and below the waterline, and characterizes the archaeological signatures of many previously unrecognized maritime and other non- shipwreck related sites associated with maritime societies. A key aspect of the thesis are the methods of collection, analysis and integration of archaeological, oral and documentary sources, and the complex interplay between the data sets.

The community of Queenscliff (Victoria, Australia), established in 1855, provides a case study by which to examine the problem of how to understand the archaeology of non-indigenous communities living and working across the land/sea divide. Three maritime themes of defence, fishing, and shipping mishaps are explored intensively to investigate the maritime utilization of the study area and the differing visibility of these activity types within the diverse data sets, especially the archaeological record. They also provide a backdrop for further consideration of the intricate web of relationships on land and sea that comprise a maritime community.

Observations of social and practical behaviors are linked to relict material cultural remains through the innovative use of GIS technology that facilitates thematic comparative analyses of multiple incongruent data sets and provides insights into overlapping landscapes. In particular, the availability of a surprising depth of previously unrecognized and unexplored traditional community knowledge facilitated striking ethno-archaeological observations that connected maritime culture with new types of archaeological sites. The dissertation establishes that understanding of each maritime landscape is made accessible only by using highly varied combinations of data sets.

This study clearly shows that in the Australian Colonial setting, non-indigenous maritime communities equally access both the terrestrial and nautical environments, and manipulate and experience their maritime surroundings in the same way as their terrestrial landscapes. The effects of social interaction between terrestrial and maritime groups are demonstrated to be strong contributing factors for landscape generation for all sectors of the community, where many cross-cutting relationships formulate multiple overlapping landscapes and subsequent archaeological signatures. These complex and far-reaching social relationships highlight the complexity of studying maritime societies, and the strong interrelationship between land and sea areas. The

cognitive driving mechanisms of several common types of maritime thematic landscapes in Colonial Australia are now better understood, as are their potential data sources and archaeological characterizations. Overall, the methodology was highly successful in accessing cultural meanings imbued in landscape, leading to a better understanding of the practices and social behaviours of maritime communities and providing challenging new research directions for Australian maritime archaeology.

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Abbreviations

”	inch (in relation to gun bore diameter)
AGD	Australian Geodetic Datum (cartographic datum)
Age	<i>The Age</i> Newspaper
AHO	Australian Hydrographic Office
AIMA	Australasian Institute for Maritime Archaeology
AIN	<i>Australian Illustrated News</i> Newspaper
AMG	Australian Map Grid (cartographic projection)
ANHFR	<i>Australian News for Home Readers</i>
Anon.	Anonymous
Argus	<i>Argus</i> Newspaper
AS	<i>Australian Sketcher</i> Newspaper
ASHA	Australian Society for Historical Archaeology
ASL	Above Sea Level
BA	<i>Bairnsdale Advertiser</i> Newspaper
BL	Breech Loading
BOP	Battery Observation Post (Range-finding Station – Military)
BS	<i>Ballarat Star</i> Newspaper
Capt.	Captain
Cmdr.	Commander
Col	Colonel
COPW	Commissioner of Public Works
CSO	Colonial Secretary’s Office
CSS	Confederate Steam Ship
diam.	diameter
DNRE	Department of Natural Resources and Environment, Victoria
DOA	Department of Army
DOI	Department of Infrastructure, Victoria
DON	Department of Navy
DOT	Department of Transport
DPA	Department of Primary Affairs
DPH	Department of Ports and Harbours, Victoria
DPW	Department of Public Works, Victoria
DRF	Direction Range Finder (Range-finding Station – Military)
DSE	Department of Sustainability and Environment, Victoria
DTC	Department of Transport and Communications, Victoria
ELD	Electric Light Direction Station
EUCC	European Union Coastal Council – The Coastal Union
FQM	Fort Queenscliff Museum
GA	<i>Geelong Advertiser</i> Newspaper
GHC	Geelong Heritage Centre
HMS	Her/ His Majesty’s Ship
HMCS	Her Majesty’s Colonial Ship
HMVS	Her Majesty’s Victorian Ship
HOA	Hydrographic Office, Admiralty
HP	Hydro Pneumatic (in relation to Disappearing Gun mechanisms)
HSAC	Historic Shipwrecks Advisory Committee
HV	Heritage Victoria
IAN	<i>Illustrated Australian News</i> Newspaper
IJNA	<i>International Journal of Nautical Archaeology</i>

IMP	<i>Illustrated Melbourne Post</i> Newspaper
kts	Knots (measurement of speed)
Lt	Lieutenant
LTGL	<i>Letters to Governor LaTrobe</i>
M	Mile
MAAV	Maritime Archaeological Association of Victoria
MAFRI	Marine and Freshwater Resources Institute, Queenscliff
MCL	Ministering Children's League
MDC	Marine Discovery Centre, Queenscliff
MEE	Mechanisation Experimental Establishment, Department of Army
MMA	Master Mariners Association, Victoria
MMH	<i>Melbourne Morning Herald</i> Newspaper
MV	Museum Victoria
nM	Nautical Miles
NAA	National Archives of Australia (Melbourne Branch)
NHS	Nepean Historical Society
NRMA	National Road and Motor Association
NSW	New South Wales, Australia
NTM	<i>Notices to Mariners, Victorian Government Gazette</i>
PHB	Ports and Harbours Branch, Department of Public Works
PHD	Ports and Harbours Division, PWD
PHO	Ports and Harbours Office, Victoria
PMA	Port of Melbourne Authority
PMS	Photo Mapping Services, DOI
PPG	<i>Port Phillip Gazette</i> Newspaper
PPH	<i>Port Phillip Herald</i> Newspaper
pr	Pounder (in relation to gun ordinance size)
PV	Parks Victoria
PWD	Public Works Department, Victoria
PWONTM	<i>Public Works Office, Notice to Mariners</i>
QH	<i>Queenscliff Herald</i> Newspaper
QHM	Queenscliffe Historical Museum
QMM	Queenscliff Maritime Museum Inc.
QS	<i>Queenscliff Sentinel</i> Newspaper
QSA	Queenscliff Sewerage Authority
RBL	Rifled Breech Loader (Guns)
RML	Rifled Muzzle Loader (Guns)
RMS	Royal Mail Ship
RN	Royal Navy
RNLI	Royal National Lifeboat Institution (UK)
RR	<i>Rip Rumour</i> Newspaper
RSL	Returned Service League
SAHB	South Australian Heritage Branch
SBICMC	Swan Bay Integrated Catchment Management Committee
SGO	Surveyor Generals Office, Melbourne
SHA	Society for Historical Archaeology
SLV	State Library of Victoria
SS	Steam Ship
SVGG	<i>Supplement to Victorian Government Gazette</i>
The Bay	Port Phillip Bay
The Heads	Port Phillip Bay Heads

THO	Tasmanian Heritage Office, Department of Tourism Parks Heritage and Arts, Tasmania
UK	United Kingdom
VCA	Victorian Channels Authority
VGG	Victorian Government Gazette
VHI	Victorian Heritage Inventory
VHR	Victorian Heritage Register
Vic	Victorian
VPD	<i>Victorian Parliamentary Debates</i>
VPP	<i>Victorian Parliamentary Papers</i>
VPRS	Victorian Public Records Service
VR	Victorian Railways
WWI	World War One
WWII	World War Two

Note: A **Glossary of Terms** is included before the Reference List at the rear of this thesis.

Table of Conversions

1 fathoms	= 3ft
3 1/3 feet	= 1m
1 mile	= 1609m
1"	= 2.5cm

Chapter One: Introduction

1) Introduction

Queenscliff is a small Australian coastal town, where for 150 years people have engaged in a tempestuous relationship with one of the most dangerous stretches of water in the world. The town is perched on a peninsula at the head of Port Phillip Bay, accessible only via an isthmus or by sea, and from this position the community sits at the maritime gateway to the largest city in Victoria (Melbourne), located 50 km northwards at the inner extremity of The Bay. Despite this proximity, Queenscliff has remained distinct from the capital and the surrounding communities, developing distinctively strong connections with the surrounding waters of Port Phillip Bay and the Southern Ocean beyond it. Since its foundation in the mid-nineteenth century, many people within the community have worked these marine areas and the settlement was (and still is) home to an array of maritime industries and services. Indeed, many of its members have formed stronger relationships with the ocean than they have with the land, and they perceive the sea in many different ways.

This thesis will use the community of Queenscliff to explore archaeology of non-indigenous communities living and working across the land/sea divide. It will be argued that such apparently maritime communities do not necessarily perceive a discontinuity between the marine and terrestrial realm, even though each region may be differently experienced. Consequently, to fully understand how a maritime community operates, it is necessary to investigate the complex relationships that exist between mariners and other community members, and in particular to define how each group occupies and utilizes both the water and land. To this end, this thesis uses a particular cultural landscapes approach to overcome the problem of working within the restrictive disciplinary and environmental boundaries of historical archaeology (terrestrial) and maritime archaeology (marine). It uses a variety of methods for collecting and integrating disparate documentary, oral and archaeological data sets available to the researcher from the Australian colonial period. In particular it seeks a broader understanding of the archaeological expressions of maritime activities in this community, whether those expressions are situated above or below the waterline.

2) Background: The Maritime and Historical Archaeological Divide

This thesis is best described as a ‘maritime’ archaeological investigation, following Delgado’s recent re-assertion of the field as the ‘study of human interaction with the sea, lakes, and river

through the archaeological study of manifestations of maritime culture' (Delgado 1997:259). However, in this sense it departs from the traditional disciplinary structure for maritime archaeology as created and practiced within Australia. From its initial origins in the late 1960s, Australian maritime archaeology adopted an historical particularist paradigm that focused predominantly on underwater shipwreck sites (and their associated relics), with occasional studies of such sites as survivor camps, and those associated with maritime industries (e.g. Green 1977; MacIlroy and Meredith 1984; Stanbury 1985, 1986, 2000). As many State heritage programs developed shipwreck databases, their archaeological work, constrained by specific legislation, concentrated predominantly on recording and assessment of individual shipwrecks (Duncan 2000:3-4). At an international level, maritime archaeology has until recently worked under a similarly restricted definition.

For nearly 20 years researchers in Australia and elsewhere have recognized that maritime archaeology needs to expand its normal scope, integrating its area of interest above the shoreline to also consider land-based maritime sites (Gould 1983; 2000; Effenburger 1987; Hosty and Stuart 1994; McCarthy 1998a; Veth 1998; Cederlund 1999; 2002; Flatman 2003). These critiques have suggested a move away from current simple site-based archaeology to embrace broader regional investigation, which integrates social behaviour and cultural practices, and the linkages between underwater and terrestrial archaeological sites (see Ruppé and Barstad 2002 for examples). Similarly, terrestrial archaeologists (of both the pre-historic and historic periods) could be criticized for not incorporating maritime sites in regional investigations. Australian historical archaeological studies have rarely proceeded beyond the intertidal zone, and therefore underwater sites which demonstrate the continuation of maritime activities beyond the tidal interface were not normally addressed (Duncan 2003a). While there have been attempts to address these criticisms by incorporating behavioural and social aspects into Australian regional maritime archaeological studies (Kenderdine 1995a, 1995b; Foster 1987-1990; McCarthy 1998b; Duncan 2000; Richards 2002), this thesis is intended to add another contribution to developing a more integrated approaches maritime societies.

These exhortations to integration suggest that a cultural landscapes approach might be the most useful way to approach such an aim. This is despite the theoretical ambiguity of what constitutes a cultural landscape or the methodological uncertainties of how they might be investigated.

3) Aims of the Thesis:

Using Queenscliff as a case study, this thesis will:

- Develop a methodology for investigating maritime cultural landscapes of the Australian Colonial period that allows for the proper consideration of behavioural and social aspects in maritime archaeology through the incorporation of many often disparate data sources.
- Explore how maritime activities are expressed in the archaeological record, and the spatial distribution of physical attributes of maritime communities which are critical to understanding how maritime communities operate.
- Investigate the spatial distribution of archaeological sites to analyse community relationships and behavior.
- Explore the relationship between archaeological signatures, extant historic structures and community behaviours and dynamics.
- Identify new types of maritime archaeological sites that are representative of thematic maritime subcultures and are essential for this type of approach.
- Develop methodologies which effectively integrate the archaeological, documentary and oral historical data sets available for the investigations of historic-period maritime communities.
- Investigate the application of this methodology to a case study area, and analyse the success of this technique.
- Demonstrate and investigate the complex web of social relations in a nineteenth century Australian town using a cultural landscapes approach
- Critically review the success of this application.

4) Structure of the Thesis.

Chapter Two critically reviews the principle structures behind cultural landscapes approaches as they have been constructed and applied by archaeologists as well as historians, geographers and anthropologists. It attempts to extract and synthesise the key understandings about landscape which have emerged from these studies, with a particular emphasis on how these might be extended and applied within the current investigation.

Chapter Three explores the methodological basis of cultural landscape investigations, with particular emphasis on the data sets available for the exploration of maritime cultural landscapes in the historic period. This section also outlines the general methodologies which have been previously employed or might be used productively in studies to identify archaeological sites

and their associations to known activities, behaviours and belief systems. The second half of the chapter establishes the data sets available for more detailed cultural landscapes investigations within the study area and describes the specific methodologies employed for the Queenscliff research.

Chapter Four introduces the Queenscliff case study, by outlining the environmental background for the area and exploring the emergence, nature and diversity of the maritime community through a series of short thematic histories. This overview sets the scene against which subsequent thematic landscapes will be introduced.

Chapters Five to Six provide specific and detailed studies of the cultural landscapes associated with two of the industries and services that played key roles in the development of the Queenscliff maritime landscapes. The role of defence in shaping the Port Phillip landscape will be examined in Chapter Five, where it will be shown that military influences have played a significant role in the determining and constraining of maritime use of this area, and has also influenced the development of many cognitive landscapes through exclusion of many other members of the community. Fishing community landscapes will be examined in much greater detail in Chapter Six to demonstrate the potential depth of different social, hierarchical, gender, ethnic and age landscapes that are evident within this cultural subgroup alone. Each chapter has been loosely similarly structured in its exploration of the relevant archaeological, ethnographic and documentary data sets (where possible), in order to identify and tease out the similarities and/or differences between the mechanisms that drove landscape evolution.

Chapter Seven represents a different approach by examining the implications of *events* on landscape construction. In this section the impact of shipwrecks on the coastal community will be explored beyond their catastrophic repercussions, examining their initial role as a uniting catalyst that crosscut the social hierarchy and their continuing significance as social or economic resources. This chapter is structured slightly differently to the previous two, as it presents a series of multiple (and often conflicting) perspectives of these occurrences, their different responses to them, and the resulting (often unexpected) archaeological signatures. The effects of these events on the social structuring and behaviour within the township are also analysed.

Chapter Eight examines the interrelationships between a range of social groups within the community, exploring the complementary and/or conflicting nature and overlap of the thematic landscapes and community subgroups detailed in the Chapter Five to Seven. These observations will be used to argue that although these groups were often in conflict, they were

also heavily reliant on each other. The effects of an imposed cohabitation of diverse social groups within an unusually confined region are further explored in relation to the generation of an alternative social hierarchy based on one's ability to demonstrate their ancestral background and attachment to the area.

Finally, Chapter Nine evaluates the methodology employed in the case study, and offers insights for future research in this area. The role of cultural landscapes approaches in the analysis of maritime coastal communities is further critiqued with regards to the current approaches, and recommendations are made regarding the adoption of a seascapes approach to maritime archaeological research.

5) Limitations of the Study

The focus of this thesis is on the relationships and archaeological evidence associated with the maritime cultural landscapes of Queenscliff during the 'historic period', that is, from the mid-19th century onwards after the arrival of European settlers. However, it is recognized that, especially in the early period, there was a complex interplay between Indigenous and non-Indigenous groups in Australia, including the adoption or modification of existing environmental and landscape knowledge and practice, as well as continuing Indigenous participation in the workforce and community. Pre-Contact Indigenous landscapes present a whole new suite of ideologies, belief systems and cultural practices that are unfortunately beyond the scope and capability of this current study to explore in detail, although it is intended that these will be a subject for future study.

This thesis draws on a number of large scale surveys of maritime infrastructure conducted by the author in Port Phillip Bay, both as part of this thesis research and whilst as a consultant employed by Heritage Victoria. Most of the substantive data for these surveys are more fully documented elsewhere (see Duncan 2002, 2003a, 2004a, 2006) and for the sake of brevity specific site details are often not included here except where key examples reinforce a line of discussion. Summaries of potential and actual archaeological sites identified are included in the appendices.

6) Conclusion

This study opens with an introduction to the cultural landscapes concept, and examines its evolution and diverse applications. The next chapter will show that although the ambiguity of

the approach is a major advantage of the concept, it has developed into an all encompassing broad notion that requires further refinement before it can effectively be used for analysis. Numerous different adaptations of the concept will be explored in greater detail to tease out the essence of what defines and underpins the concept, and a number of key elements will be highlighted which will form the theoretical approach that will be used throughout this thesis.

The land as shaped by people in turn helps structure their patterns of action. Every action we perform is contained within a network of actions stretching across time and space. We can think of this network as a system of reference, because every act implicitly refers to many others. This cyclical process shapes the cultural landscape, one feeding into the other. If we can link social processes to the physical transformation of the landscape, we have a means of understanding social processes over the long term. (Gosden and Head 1994:114)

Chapter Two: Cultural Landscapes Studies - An Overview

1) Introduction

The term Cultural Landscape refers to the general concept that cultural identities and communal histories are anchored to physical landscape features and contained within cognitive perceptions for any given area. This unifying notion provides a mechanism for contrasting perspectives of individuals and groups to structure and analyse the complexity of people's social inter-relationships with their environment over space and time, and its utility lies in "its ability to amalgamate disparate groups of loosely related approaches under a single heading". Therefore, the landscape paradigm potentially facilitates the identification of underlying complex patterns which connects different observations of the extent of contrasting/conflicting community interaction within their environments (Ansuetz et al. 2001:163).

The cultural landscapes approach has been extensively used in archaeological and anthropological discourse to investigate the physical expressions of cultural presence and the generation of cognitive meaning attached to them. Landscapes provide an arena within which a group's cultural interaction with the environment, other individuals and communities define and redefine cultural identity and practices and vice versa. There is a duality of interaction between landscapes and human activities, where human action/culture creates landscape, and landscape then shapes human action (Gosden and Head 1994:114). The study of landscapes therefore provides an opportunity to access new understandings of past cultural behaviour within any given environment and the subsequent physical signatures of those activities within the archaeological record.

Most of the earliest landscapes studies were confined to terrestrially based economies and settlements, and often did not consider activities that occurred offshore. However, in many regions social expansion and economic activities have been inextricably related to maritime economies and the use of the bodies of water (e.g. sea, lakes, rivers etc). Although research had been undertaken of the marine environment, it had been largely restricted to studies of shipwrecks and maritime routes, and these specifically examined the sea as a separate entity to

the land, and often stopped at the intertidal zone. The division of landscapes based on environmental parameters is questionable, as culture and practice does not stop at the waterline, but crosses and recrosses the shoreline to continue offshore. Mariners regularly inhabit and make use of the shores and areas further inland, and conversely terrestrially based communities sometimes also exploited and/or travelled on the sea. Therefore, any academically imposed notional boundary between the maritime and terrestrial worlds (of land and sea) is problematic, as it does not necessarily reflect actual use and subsequent perceptions of these environments as interlinked components of cultural landscapes.

This chapter will critically review a range of cultural landscape studies to look for concepts and approaches that span the land/water divide. The interplay between the utilisation of the marine and terrestrial environments requires further investigation, as different members of a maritime community may (or may not) operate in both these regions, but may use and/or perceive them differently. Recent investigations of maritime infrastructure in the littoral zone have begun to address this problem, but there is still a long way to go. One objective of this section is therefore to examine how the concept of landscapes can be applied to examine cultural practices and beliefs undertaken both on the land and sea, and what their archaeological signatures might be.

This chapter will also explore many of the popular approaches utilised to examine cultural landscapes, and will extract what are considered to be the main strengths of the concept, along with the most pertinent methods to derive a methodology for further investigation of a case study area. A variety of studies are examined to extract the essence of what constitutes a cultural landscape, and how to access them. This section will critique the various approaches, and draw parallels echoed in other research to provide an overview of my working definition of what constitutes a cultural landscape for the purposes of this thesis.

2) What Constitutes a Cultural Landscape? The Fundamentals

The term “cultural landscape” was first coined by Carl Sauer (1925:49), who used it in a specific way to interpret regional settlement patterns associated with cultural and social organisation (Craig 1998:15). By the 1950s, Hoskins (1955) had undertaken studies of the British landscape which were grounded in historical studies, where the emphasis was on the recording of archaeological sites which were categorised to given time periods. The focus was on the evolution of function, form and place, and the relationship of the physical landscape and archaeological remains against the observed underlying cultural traits of the inhabitants. The

essence of these two approaches was a distinction between whether areas were “natural” countryside and humanly impacted environments, where the results of cultural activities were seen to detract from the natural or aesthetic landscape. This contrasted to contemporary approaches in America by Jackson (1951), which were based in geography. Whilst also investigating evolution of landscape over time, his analyses were centred on understanding the landscape from the perspective of the inhabitants (Meinig 1979a: 212-216).

The 1960s onwards saw an expansion of the perspectives of landscape studies. Several geographers (e.g. Cosgrove 1984; Cosgrove and Daniels 1988; Penning-Rowsell and Lowenthal 1986) began to interpret landscapes through the adoption of social and cultural theory to explore cultural practices and beliefs, socio-political processes, and non-physical landscape aspects. This period of development has already been succinctly described by Anschuetz (et al. 2001). In particular, Meinig (1979b) made considerable advances to the field when he explored the concept of multivalent views of the same landscape arena. This period also saw the rise of landscape archaeological studies, where the spatial patterning of sites scattered over large regions were interpreted against their environmental setting in an attempt to analyse cultural behaviour (e.g. Hodder and Orton 1976; Clarke 1977; Judge and Sebastian 1988; Ebert 1992).

With the widespread introduction of phenomenology and cognitive approaches to cultural landscape studies in the 1990s (e.g. Ingold 1993, 2000; Tilley 1994), the focus turned firmly to the investigation of social relationships which incorporated landscape perceptions of both individuals and groups.

By the 1980s, innovative archaeological studies of maritime cultural landscapes that spanned the land/sea divide were being undertaken by Westerdahl (1991) in Scandinavia. He used the term to specify the unity between terrestrial and underwater material cultural remnants observed during a regional survey in Sweden, later advocated that: “The maritime cultural landscape signifies human utilization (economy) of maritime space by boat, settlement, fishing, hunting, shipping, and its attendant subcultures, such as pilotage, lighthouse and seamark maintenance” Westerdahl (1992:5-6). He stated that maritime cultural landscapes should be compared to their terrestrial counterparts, but not only as extensions of them. Westerdahl (1994: 266) later modified his definition of landscapes (which was focused purely on material cultural remains), to include cognitive, cultural and social activities and/or aspects of the study area. He further developed the concept over ensuing years (Westerdahl, 1991, 1992, 1994, 1995, 1998a, 1998b, 1999, 2000, 2002a, 2002b, 2003a, 2003b) and his lead was soon followed by others (e.g. Hunter 1994; Kenderdine 1994, 1995a; Kelleher, 1998; Rönnby 1998; Parker 1999, 2001; Jasinski 1994, 1999; O’Sullivan 2001; Ragan 2001; McErlean et al. 2002).

Although Westerdahl was the first to use the term, it is important to recognize that other (often earlier) studies of maritime cultural landscapes have taken place that did not use this phrase. A number of ethnographic, archaeological and anthropological investigations of indigenous Pacific Island maritime communities (Malinowski 1961; Gladwin 1970; Finney 1976; Lewis 1980, 1994; Johannes 1992; Roe et al. 1994; Hviding 1996; Roe and Taki 1999) have examined a wider range of cultural landscape components, including archaeological sites, belief systems, ethno-history, environmental aspects and documentary sources. Significantly, these studies recognised the importance of non-physical components, such as myths, folklore, toponymy and their associated stories, and specialized local knowledge (all of which were often used to validate territorial ownership, community identity and belonging to place) to understand the functionality of those societies within the context of their given belief systems. These cognitive aspects have often been divorced from many modern European cultural landscape studies until recent years, and will be explored in much greater detail in this thesis.

A) Ambiguity of Landscape – Confusing the Terms

The multiplicity of research directions in cultural landscape studies has often led to many different interpretations of the concept. Indeed, the ambiguity of the cultural landscapes approach has been one of its main strengths, as it has allowed for recognition of diversity between cultures, and incorporated concurrent examination of various aspects using methodologies drawn from different disciplines:

...it is the very fullness and ambiguity of the concept of landscape that makes it so useful and helps span the gaps that might otherwise exist between a number of disciplines. The thread that binds geography, archaeology, and anthropology together around the theme of landscape is the notion of history that can be derived from it. The concept of landscape stretches between the physical shape and properties of the land, to the human use and conceptions of that land, bringing together themes that are vital to an understanding of human history and which normally remain separated. (Gosden and Head 1994:115)

However, when Barker and Darvill (1997:1) observed that “cultural landscapes are not what they used to be”, they implied that the utility of the phrase had been weakened because the people who used it rarely defined the specific meaning in their work, or the method they employed to explore the notion. In this statement, they commented both on the changing nature of cultural landscapes over time, and also the bastardization of the concept to become an all-encompassing term used to describe anything from the physical to the intangible, and not the amalgamation of many different perspectives as had been originally intended. The usefully ambiguous concept as defined by Gosden and Head (1994:115) may now be losing its strength because its meaning can be taken to constitute anything and everything (see Anschuetz et al.

2001). The paradox is that although the approach allows an all-inclusive view, at the same time the concept loses focus through lack of definition.

Over time the cultural landscape concept has taken a central place in many archaeological studies and been manipulated in different directions of study (e.g. Wagstaff 1987; Tilley 1994; Everson and Williamson 1998; Pattison 1998; Ucko and Layton 1999; Bradley 2000; Ashmore and Knapp 2000; Mayne and Murray 2001; Scarre 2002). Additionally, many regional landscape GIS analyses of landscapes have been undertaken which examine archaeological spatial patterning (e.g. Johnson 1993; Allen et al. 1990; Lock and Stančič 1995; Gillings et al. 1999). However, these investigations may not necessarily constitute landscape analysis as landscape is not a term that is synonymous with spatial archaeology, and this approach tends to only examine positive regional archaeological signatures, whereas (as will be further discussed below), landscapes analysis also examines the meaning of negative (empty) signatures in the physical environment.

Similarly, maritime cultural landscape studies have adopted multiple directions of investigation, approaches and definitions to examine coastal and marine regional settings, from investigations of maritime culture (Westerdahl 1992, 1993, 1994, 1995, 1998a, 1998b, 1999, 2000, 2002a, 2002b, 2003a, 2003b); maritime specialisation (Hunter 1994; Parker 1995; 2001); and geomorphological processes within archaeological landscapes (Fischer 1995; Wickler 1999; Indruszewski and Gluzniewicz 1998; Indruszewski 2002). Some maritime cultural landscapes studies have focused on the use of the concept for cultural and environmental heritage management (e.g. Maarleveld 1997, 2003; Larsen 1997; Esser 1999; US Dept Commerce et al. 1999; Claris 2000; Bauer et al. 2001; Vrana and Vander Stoep 2003) and compiling archaeological inventories (Williams and McErlean 2002). Other enquiries have included the examination of riverine and estuarine archaeological sites (e.g. Graham-Campbell 1997; Aberg and Lewis 2000); the use of visual computer generations of landscape to aid the analysis of ethnographic accounts and archaeological data to illuminate the cultural and social relationships between communities and the environment (e.g. Vatenen 2002) or combinations of archaeological, palaeo-environmental and ethno-archaeological approaches (e.g. Howitt-Marshall 2003:4).

Although many excellent studies sought to incorporate utilitarian and perceptive aspects of the maritime environment (e.g. Westerdahl 1994, 2000, 2002a, 2002b; Parker 1999, 2001), in many cases an environmental deterministic approach was adopted (e.g. Allen 1995:30). Alternatively they concentrated predominantly on material and archaeological aspects of the maritime landscape at the expense of cognitive investigations that could have been accessed through

folklore and oral histories (Kelleher 1998; Aberg and Lewis 2000; Ragan 2001; McErlan et al. 2002). Other investigations have focussed on individual landscape features (e.g. fish traps – Bannerman and Jones, 1999) or maritime infrastructure (e.g. Breen 1998a, 1998b, 1999; Breen and Callaghan 2001). As such, these works might more correctly be termed maritime archaeological landscape studies, as their cultural investigations were usually confined to examination of economic practices and their consequent archaeological signatures.

B) Developing a Consistent Methodological Approach

A major problem underpinning current approaches to cultural landscapes studies is a lack of methodological definition. Not only are there a range of directions common in archaeological research, but the concept is also extensively used in cultural heritage literature which further confuses the issue (e.g. Feliu 1995; von Droste et al. 1995). As such it is not clear exactly how one might utilise a cultural landscapes approach in terms of data source types, method and analysis. An explicit method is required to enable insights into what data types and directions of research are appropriate in any given situation.

We also need to be able to find a reporting style that is usefully ambiguous in the same way, but currently this is not well defined. Many current approaches follow a chronological framework that does not allow for changes in direction either temporally and/or spatially. Alternative approaches have been suggested by Bender (1992:5), who presented her discussion in a non-chronological format that revisits the landscape several times over to highlight different aspects or themes, although this is still cumbersome and unwieldy.

With these problems in mind, a range of cultural landscape studies were reviewed to identify the essence of what underpins the cultural landscape concept, and to analyse the diversity of concepts and approaches to extract a suitable methodology for application of this notion. Such an approach needs to recognise the diversity of cultures within the landscape, and also that people utilise their environment in a way that collectively exploits land and sea areas, but often in different ways, and does not always necessarily recognise a discontinuity between terrestrial and oceanic areas. It should be noted that in the discussion below, the importance of some landscape factors which have not previously been widely addressed are given greater attention than other aspects have already been more widely adopted in this approach (and which have been dealt with in more sufficient detail elsewhere).

3) Landscape Approaches

A) Landscapes are Physical and Cognitive

Not surprisingly, many archaeologists who investigated landscapes predominantly focused on physical archaeological remains and other structural aspects, rather than social and metaphysical dimensions. Even in early studies, Jackson (e.g. 1951, 1979, 1994) repeatedly and effectively demonstrated that cultural landscapes consist of more than physical remains, and that a whole suite of cognitive perceptions were intrinsically tied to landscape construction and expression. Furthermore, Darvill (1999:104) argued that rather than being a synonym for countryside (cf Hoskins 1955), landscape was a terminology for particular ways of seeing the world based on specialised experiences of space and time. His concept of landscape embraced themes of relationships between individuals and communities, the range of belief system and values, and how these translate into the cultural world which they have created. Therefore landscapes exist on two primary levels being expressed and experienced both physically and cognitively.

B) What Landscape is Not – False Dichotomies

It is useful at this stage to define what a cultural landscape is not. In his groundbreaking work, “The Temporality of Landscape”, Ingold (1993) examined how cognition and belief systems were physically expressed in the landscape. Landscape is not synonymous with land, and as Ingold (1993:153) demonstrated there is a difference between the actual physical landscape (land) and the physical use and intangible perceptions of it (cultural landscape):

Thus at any particular moment, you can ask of a landscape what it is like, but not how much of it there is. For landscape is a plenum, there are no holes in it that remain to be filled in, so that every infill must be a reworking (Ingold 1993:153)

If Ingold’s stance that landscape can not be measured is accepted, then by definition landscape also can not be divided, and therefore requires that any notion of binary opposition (e.g. land/sea; natural/ cultural; past/present) be set aside as there can be no distinction between where the data comes from. This stance is supported by numerous researchers (e.g. Lewis 1980, 1994; Johannes 1992; Hviding 1996).

However this presents a further problem in that even though many physically different regions form the totality of individuals/groups worlds, these environmental/perceptual settings are usually divided according to how people use/perceive them, with each used in different ways. The land and sea demonstrate just one way in which people see the landscape. In trying to disentangle what cultural landscape is for individuals/groups, the paradox of the approach is that

in order to access the totality of landscape(s), you first have to divide it up and establish analytical units/categories to understand its multi-vocality. This approach may initially seem antithetical to the purpose of the notion, and was very difficult to implement as it placed divisions on holistic representation (that underpinned landscape studies).

However, the target of the approach is to examine landscapes that do not have any holes in them, and to get to this point requires the use of analytical categories. By definition the landscape is a plenum, and there are multiple interpretations/perceptions of it, and it therefore does not matter if they conflict or overlap, as it is the multivalency of notions that is significant, and therefore all interpretations of landscape are correct.

What this means is that we need to question any (academically imposed) simplistic notions of landscape which are based on binary oppositions such as land/sea, natural/cultural, and static/dynamism (which differentiate between sources of data based on physical location and/or historical analytical research notions/directions), whilst still recognising the perceptive differences between landscape components as recognised by the actual landscape participants themselves.

I) Natural vs. Cultural Landscapes

Although the field owes much to Hoskins' (1955) approach, current academic views do not accept his division between the (natural) countryside and the (developed) town. Jackson's (1951) study of the American southwest argued that the dichotomy between natural and artificial landscapes was incorrect, as nature pervaded the built environment and vice versa, so that there was a constant reaction between people and the environment (Meinig 1979a:212-6, 235). Indeed the term "natural" is a cultural construct, and is not found in all societies. Bender (1992:5) further argued that material structures and their remains were placed within the theatre of the topographic environment, and as they are complementary components that formed the landscape, nature and culture are indivisible in landscape studies. Firth (1993:1, 2) reinforced this point when he demonstrated that the concept of the sea as a natural environment is incorrect, as it is affected by human use of it in a number of ways through the deposition of archaeological materials, the definition of navigational routes, the extraction of natural resources and the development of perceptive and cognitive knowledge frameworks which dictate its use.

Some researchers have further recognised that seemingly "natural" (i.e. unaltered) places are often encoded with rich symbolic cultural meanings which act as validations of oral histories

and belief systems for past significant events (Jasinski 1999:17; Roe and Taki 1999: 415, 419; Bradley 2000). Their studies of many “natural” (often unmodified) features in Scandinavia, the Pacific and Europe, respectively, recognised the cognitive associations with important communal and ancestral events and landscapes:

These histories transform the silent landscape of rocks and stones encountered in purely archaeological enquiries into a landscape in which some stones are keys to knowledge or information, or have a being of their own...(Roe and Taki 1999:419)

In these cases, the “natural” features had no archaeological signatures until their history was informed by traditional narrative and place names, which dramatically demonstrates the importance of oral accounts and memoir histories for any cultural landscape. These observations transform seemingly “natural” places into areas of high cultural significance, and reinforce previous observations that all landscape features are cultural owing to their associated meaning. There can be no division between natural and cultural settings, for by its very definition landscapes are always cultural. It is not a matter of how (or if) the land is altered, but the very combination of physical and cognitive expressions of culture within the land, along with the perceptions of it, that make it cultural, and therefore the term cultural landscapes is in itself is a tautology.

II) Land vs. Sea Divide

The differentiation between land and sea is largely irrelevant in a cultural landscapes approach, as all areas regardless of their geographical locality (i.e. underwater, above water or land based) are considered essential components of the totality of the landscape. In many cultures, people use the sea in similar ways to their utilisation of the land. In a study of Marovo Lagoon in Melanesia, Hviding (1996:1, 233-8) demonstrated that islanders did not differentiate between land and sea areas. He showed that so-called “terrestrial” indigenous landscapes did not stop at the tidal interface, but extended out over the water to include territorial areas of traditional “sea land” which were managed within a structured land tenure system.

Cultural practices were also deeply embedded in the sea, and Hviding (1996:1, 233-8) demonstrated that to the Marovo residents, the sea was “an environment crisscrossed by culturally inscribed paths of sequential practical experience leading to/from distant lands, whose inhabitants are part of a wider social experience”. The notion that the land and sea were inextricably linked even in Western societies/cultures was also expounded by Westerdahl (2000:3). He advocated that the boundary of one environment delimited the beginning of the other, whilst, at the same time as being opposites and contradictory in nature, neither could be understood without reference to the other. The cognitive continuities between the land and sea

have also been reiterated by other researchers in the Trobriand Islands and Australia (Malinowski 1961:343-4; Dale et al. 1999:48).

These observations had particular significance for this study, as they demonstrate the inseparability of the land/sea environments when analysing apparently maritime or coastal economies. The fact that data sets derived from either terrestrial or maritime environmental sources was irrelevant, because as perceived by their users they were collectively components of the same landscape.

III) Static vs. Dynamic/Continuing Landscapes

Cultural landscapes do not have a terminal point, but represent continuous trajectories from the past into the present and beyond to the future, and similarly they are not spatially constrained. Early approaches to landscapes (Hoskins 1955) saw the physicality of the twentieth century as a blot on the land that obscured and interfered with the previous historic landscape and its traditions. This contrasted starkly to Jackson's (1951) approach, where he argued for the notion of a continuing landscape which encompassed the present modern contributions that often comprised vernacular (or "ordinary") landscapes. Jackson's tolerance of change incorporated his principle of evaluating landscapes in terms of life, which included social dimensions in preference to Hoskins' aesthetics, but also integrated the latter's need for substantiation through history and specific detail to understand landscape meaning. Meinig (1979a) suggested that a combination of the two approaches, which addressed both historic and archaeological details of the land and the dynamic social elements of the inhabitants, would reveal the very richness of the landscape itself.

Numerous researchers have recognised that constant change is the normal state of landscapes, and includes the continual re-appropriation of landscape over time, as well as change at differential rates and on many different levels (Bender 1992: 5; Darvill 1999:107). The spatial migration of townships and centres of maritime activity is an important consideration in landscape evolution (Westerdahl 1991, 1994:267, 1998a:9; Parker 1999). Over time landscape feature locations might change based on internal or external political, social, cultural, climatic and environmental factors. Bender (1992:10) showed that these cultural and social influences might be evident by the temporary and/or total abandonment of some areas or features, further demonstrating the dynamic constitution and re-constitution of society. Modern and archaic features are therefore part of a continuing landscape, and analysis of the type and location of change in a landscape may further inform of the cause of those changes.

IV) Singular vs. Multivalent Landscapes

Many early landscape studies considered the existence of a singular landscape only that evolved over time (e.g. Hoskins 1955). However, most researchers now believe that multiple perceptions exist of the same region, that each landscape experience was unique to the individual or group, and was a result of personal or communal conscious perceptions and associations to places and/or regions. Views of landscape vary accordingly, and may be valued correspondingly for their natural, habitual, archaeological, administrative or power system, territorial, ideological, historical, or atheistic values, to name but a few. Meinig (1979b) proposed the existence of multiple and overlapping landscapes, which may be shared or individual, but co-exist independent and/or interdependent of other perceptive landscapes and their creators. The crux of this observation further reinforces the notion that people create landscapes, both physically and cognitively, and that all landscapes are therefore cultural as they are the result of personal perception. With the introduction of phenomenology and cognition to cultural landscapes studies, it was clear that multiple perspectives (and hence landscapes) were possible for any given area (Ingold 1993, 2000; Tilley 1994; Westerdahl 1994). People will therefore experience any given area differentially, dependent on their individual or communal experience. Gibbs (2005) even observed that there can also be multiple perspectives of shipwreck sites as graves, events, recreational resources, contested space or places of ideological reinforcement.

The introduction of the concept of a multivalency of landscapes led many researchers to recognise that landscapes occupy different areas of time and space. Bender's (1992:9) study of Stonehenge explored the notion that many different landscapes existed that were not necessarily bounded within the same geographical areas, and that these were dependent on (the landscape participants') "knowledge of the world out there". In particular, Bender (1992:1) commented on the weaknesses inherent in archaeological studies:

They fail to recognise that the way in which people understand and engage with their worlds depends upon specific time and place and historical conditions; it depends upon gender, age, class and religion. At any given moment and place landscapes are multi-vocal. Moreover these approaches fail to promote a sense of the active presence of landscapes: people engage and re-engage, appropriate and contest them, use them to create and dispute identity - whether self, group or nation. Thus landscapes are not only created by and creative of specific cultural, social political and economic configurations, they are also tensioned by the contradictory claims and counterclaims made upon them.

Furthermore, perceptions of the physical landscape sometimes varied between user groups, and were especially dependent on the perspective of whether the landscape participant was terrestrially or marine based. Although it has been demonstrated above that many societies do

not conceptually distinguish a land/sea boundary, there may be perceptual differences on how disparate groups experience those environments. This notion was extensively explored by Westerdahl (1994: 267), who coined the phrase “topocentricity” to describe the situation where perspectives of the same land and/or sea features were experienced differently dependent on where they were viewed from. He demonstrated the notion further through examination of the possible viewpoints of coastal burial monuments from the sea and land, and their subsequent meaning from each perspective (Westerdahl 2002b:62, 65). Westerdahl’s (2002a:169) study of Northern Europe recognised that differences existed between the cognitive landscapes of seafarers and agrarian workers, where he proposed that mariners rely more on mental maps for navigation through their landscape, possibly due to the dearth of tangible/physical markers. This is not to say that terrestrial dwellers do not also utilise cognitive maps, but that there are several different kinds of cognitive landscapes, each of which is used differently, although not exclusively by different user groups. Westerdahl proposed that there were many types of landscapes including *economic, transport, power, ritual and resources landscapes*, and that these landscapes transcended the land/sea divide and overlapped each other. This notion of alternative perspectives was also recognised by Crumlin-Pederesen (1996 as cited in Parker 2001:23) who expounded that the main objective of maritime archaeology should be “to learn to perceive the landscape and settlements as they were seen with the eyes of the sailor or fisherman in the past, approaching land from the sea or from navigable rivers”. Indeed Goldsmith Carter (1945:22) has demonstrated that different perspectives of the same place by the same person may be held dependent on whether the view from is from the land or sea.

These different viewpoints have also been recognised as influencing the researchers’ approach of cultural landscapes investigations. Jasinski (1999:13) has shown that the differences between maritime and terrestrial archaeology lie in the perspectives of the sea:

Terrestrial archaeologists...stand on the shore with their backs to the sea, using the inland as the background for their documentation. Maritime archaeologists generally do the opposite.

Various researchers have advocated that these differences in perspective would be recognisable in local folklore and place names (e.g. Holmberg 1991). Parker (2001:35) showed that toponymy is dependent on landscape perspective, and that maritime landscapes may be identifiable by the perspective from where the place was named. The differentiation of landscapes was succinctly demonstrated by Hunter’s (1994:263) observation of two varying sets of place names for the same area (Fair Isle), where those locality names used from the sea were never used on land, and vice versa, and by other demonstrations of the dual functionality of

monuments as navigational features and/or transit marks for both land and sea (Jasinski 1999:15-6; Parker 1999, 2001:35).

Therefore, a more effective way to analyse the differentiation of landscape based on locational perspectives (of the local inhabitants) may best be expressed in terms of maritime and terrestrial communities, where maritime communities are defined by their physical association with the sea (what Westerdahl 2002b:65 terms “maritime culture”). In the case of this thesis, the term ‘maritime cultural landscape’ is employed to define the use of a maritime economy/environment by local inhabitants and the associated social networks and relationships, rather than to imply any spatial differentiation between land and sea regions.

C) History Tied to Landscapes Through Oral History/Toponymy

The notion of cultural landscapes acknowledges that people tie life, events and continuity to the place, and that this is evident in narratives that have connections to the environment. Ingold (1993:153-5) recognised that landscapes are read from the land according to an individual’s knowledge and perceptual attuning to the meaning of it.

To perceive the landscape is therefore to carry out an act of remembrance, and remembering is not so much a matter of calling up an internal image, stored in the minds, as of engaging perceptually with an environment that is itself pregnant with the past. (Ingold 1993:152-3)

In Melanesia, several studies have observed the importance of anchoring and indexing of history through the association of narratives with named places in the landscape (e.g. Roe and Taki 1994:413). Numerous researchers have recognised the significance of narrative, toponymy and tangible places as mnemonic devices for the recollection of ancestral history, events and people (Mead 1973; Harwood 1976; Kahn 1990). The importance of individual places as historic markers in the landscape was reinforced by knowledge of individuals, families and lineage associated with those places, which provided a pseudo-temporal aspect that was otherwise unavailable for those sites. In those cases history was anchored spatially, not temporally. These places sometimes did not demonstrate any archaeological signatures, but were nevertheless of high social significance for those communities (Roe and Taki 1999:413-4). Knowledge of the meaning of landscape came with experience, and was often drawn from “myth” and folklore, or the landscape itself. As knowledge was also drawn from cultural ties (i.e. family and community) the construction/awareness of landscapes was also therefore a social phenomenon.

Although many previous studies have termed some data sources as “myths” or “legends”, Roe and Taki (1999:414) have shown that these categorisations in themselves deny any sense of actuality of truth, as they undermine the reality of the narrative account. These accounts are better described as oral history or folklore, as the narrators often do not recognise a distinction between myth and reality. Folklore represents an informal framework for communicating culturally significant information that exists outside official societal frameworks, which is incorporated into group customary thought and practice, and transmitted through oral and documentary local histories (Seal 1989:7). Folklore also encompasses traditions and beliefs expressed in folk/mythology tales, place names, regular rituals and ceremonies, traditional oral literature and rituals, material culture, social customs, and artistic performances associated with various social groups (Gazin-Schwartz and Holtorf 1999:6). Furthermore, the disparities provided by oral traditions to official views provide access to the multivalency of landscapes that exist in any given area.

A further point to consider here is that it is not the truth of the account/belief that matters, but what the consequences/perceptions of it are, and how one might work in the opposite direction (i.e. an archaeological approach). Whilst it is recognised that oral histories and folklore contain inherent bias, so too do all historical documents, maps and even archaeological interpretations. Whereas previous historical and archaeological investigations have sought to control bias, the focus of cultural landscapes studies is the bias, which informs of the perceptions of landscape participants.

D) Other Landscape Components

Analysis of landscapes requires, paradoxically, that we investigate thematic issues (using analytical units) to divide the world again before constructing an image of the totality. This section looks at some themes/notions that have proven useful in the analytical phase of landscape investigation. Many studies have highlighted various landscape components that may not be universally recognised, but are worthy of further consideration for the development of an integrated methodology for investigating landscapes.

I) Empty Space/ Landscapes of Exclusion

In her study of the archaeological landscape of Stonehenge, Bender (1992:5, 8) expounded the significance of empty spaces as landscape features. She identified that the contextual setting of many monuments is of equal significance to the structures themselves, as it was the empty space

around the monument that drew the beholder's eye to it; without the void the aesthetic power of Stonehenge would have been lost behind a forest of trees. The importance of empty space has also been observed by other researchers, including Crumley and Marquardt (1990:73, 74) who noted that even unoccupied or infrequently used places were significant landscape features.

Empty space has also been used as an exclusionary zone to restrict access for those of lower or inappropriate hierarchical status (particularly in ritual, confinement and defence situations). The building of some structures has been shown by Bender (1992:8, 9) to reinforce social boundaries and notions of power, by providing differential and segregated access to certain landscapes/areas. This observation has many demonstrated similarities to religious/sacred and military realms, where restricted access to the inner domains reinforces the social hierarchy of both those within and without those organisations, and is a notion that has been supported by other researchers (Darvill 1999:106; Westerdahl 2003a:481, 484). Empty space therefore represented an important authoritarian power statement within the social landscape. Similar restricted circumstances have been observed in relation to tapu (or sacred) areas, burial and massacre sites, and other territorial restrictions associated with economic resources throughout Australasia and the Pacific (Hviding 1996:250-8; Meyers et al. 1996: 7; Dale et al. 1999).

O'Sullivan (2001:263) observed that the emptiness of space (in a maritime setting) was a matter of individual perception. What is a bare setting to one, is to another a landscape full of meaning informed by stories, songs, place names, working practices memories and imaginings of past shipping disasters, fishing seasons and other events. This reinforces previous arguments outlined above regarding perception and natural vs. cultural landscapes. It appears therefore that the construction of empty space (whether on land or at sea) constitutes a socially significant landscape component and/or feature that is worthy of further investigation.

Westerdahl (2003a:481) also explored the concept of islands as metaphors for detached or separate space (in relation to islands as enclosed and isolated boundaries for punishment). Significantly, he proposed that the notion of an island (where inhabitants form their identity based on their isolation and insular world) could be trans-shipped to the mainland, which suggested that conceptions of maritime identity could be shaped and reinforced by separation from surrounding communities. This concept will be explored in further detail in relation to the construction of community identity and cultural landscapes in Chapter Eight.

II) Authority or Power Landscapes/ Landscapes of Resistance

Control of central populations is a key component of social organisation within many societies (McGuire 1991; Morozowski 1991). In a maritime setting official control mechanisms may be exercised in many forms such as defence, policing, customs, quarantine, pilotage, immigration or even religion, which Westerdahl termed “power landscapes”. In his investigation of one type of power, warfare, Westerdahl (2002a:169, 171, 177; 2003a:482) demonstrated that the dynamic and mobile nature of military action meant it was often spread over wide areas, but was evident from both archaeological remains and possessive toponymy (“authority names”). He proposed that the power landscape of warfare was archaeologically visible in (watchtower) beacons, ship blockages, mechanisms of control or restricted access (e.g. underwater defensive pilings), forts and high status burials. Official place names were also a product of the intentions of social powers, and in themselves were evidence of a power landscape. The naming of the landscape especially after royalty or dominant powers reflected the official ideology of the ruling class, and temporal toponymic variation can also reveal changes in social conditions and authority structures (Westerdahl 2003a:469).

Furthermore, some researchers (Firth 1993:3; Westerdahl 2002a: 179) have observed that networks of fortifications, beacons and watchtowers reflect attempts to impose centralised power at a distance, by acting as visible and tangible reminders of authority mechanisms that governed the area. This suggests that the presence of power landscape features (i.e. fortresses etc) in any given region does not necessarily mean that that area was the central seat of power, but rather could be a remote extension of it. Power landscapes may be visible not only through physical remnants of former authoritarian structures, but may also be defined by a lack of archaeological evidence of the classes who were barred from the exclusionary landscape areas that often bounded them.

Power structuring of maritime landscapes was often evidenced in less obvious ways. Hviding (1996:1, 233-8) demonstrated that Marovo Lagoon residents organise their maritime environment through its use as a storehouse of cultural identity. Localities within the Marovo seascape were named after events or ancestors, and constituted an historical map of that community. This seascape was then used to underpin that group's cultural identity, both through its marking of territory and the reinforcement of cultural origins. These territorial restrictions were subsequently often used to control access to given regions and the resources contained within, which suggested that territorial structuring of the maritime landscape also operated as a political statement (mechanism) of power/control.

Power landscapes by their own existence in some instances produce “landscapes of resistance”, where inhabitants within or adjacent to those regions resisted the authority exerted over them (Westerdahl 2002a:169). These resistance landscapes might be expressed in violations of restricted territorial boundaries and governed behavioural codes, alternative landscape toponymy, or rebellious folklore, songs and oral histories. Physical indicators of intrusion might be evident in archaeological sites within banned territorial areas. The landscapes of power and resistance present interesting possibilities for investigation of social interaction between thematic maritime groups.

III) Technological Evolution

The importance of technological advancement on landscape evolution and practice was noted in many landscape studies (e.g. Clark 1987). Parker (2001) noted that Bristol mariners’ practices (and hence their landscapes) changed markedly with the introduction of motors and other technological developments, which altered the way the landscape was traditionally utilised. Other researchers have noted similar evolutionary trajectories as maritime technologies developed in the Pacific and Scandinavian regions (Irwin 1992; Lewis 1994; Westerdahl 1998a, 1998b). Although these investigations have dealt predominantly with advances in shipping design, this study will further explore the effects of technological advancement, with particular relevance to defence.

IV) Importance of Actions/Events

The importance of an event or the creation of an archaeological site has been highlighted by Bender (1992:8), who advocated that the act or event that created a landscape feature was often as important as the consequent material remains. Her archaeological observations of the backfilling of votive trenches implied that often meaningful activities in the landscapes may not be archaeologically evident, or their subsequent signatures may belie their real meaning or significance. In other words, an actual act or event may be the primary focus of the landscape participant, and the resulting archaeological signature of that event may only be an inconsequential by-product that does not reflect the true significance or values placed upon the original occurrence. This has particular significance for the introduction of ethnography and folklore to landscapes studies, as archaeological studies alone may not recognise or inform of the full range of significance of certain landscape activities or events. However this situation may also work in reverse, where the event has been the main focus of research, but that in the eyes of the local population the site that is produced is just as significant. This study will

therefore examine the effects of an event in the analysis of landscape creation in further detail in Chapter Seven in regards to shipwrecks and strandings.

V) Routes

Routes are important landscape components (Evans 1999), and not only provide connections through the landscape, but are in themselves centres of activity that are imbued with meaning and tangible substance. Fowler (1998: 25) commented that:

If landscape is not only the result of dynamics, but is itself dynamic at any one time, then movement within and through it by people and their materials is both a lubricant and a product of those dynamics.

The importance of routes was recognised by Ingold (2000:237) who has shown that navigation through the landscape is often guided by a series of recollections that link places and events. These are embedded in locale names that tie stories of people and events to place, and by following a story line. Differential access to, and knowledge of place leads to varying perceptive landscapes, and hence routes of navigation. The reverse is also true, where the use of different routes gives rise to new perceptive landscapes and knowledge. Ingold demonstrated this point by examining the way we guide strangers through our own landscape. First a place name is given, which may mean nothing to the visitor until the history of the area is explained relevant to the guide's own experience:

As someone who has lived in a country, and is used to its ways, knowing where you are lies not in the establishment of a point to point correspondence between the world and its representation, but in the remembering of journeys previously made, and that brought you to the place along the same or different paths. (Ingold 2000:237)

Thus navigation through the landscape is dependent on the world view (or cultural landscape) of the navigator. Unless armed with the prior knowledge of the meaning of the landscape as passed down from the mapmakers (i.e. those who have traveled there before, or are informed through folklore and instruction) the newcomer must create their own landscape that is referential to their own experience or those guiding them. The continued use of similar landmarks for navigation generates new landscapes that are unique to the individual or group using them.

Similarly, sailing routes represent important dynamic maritime cultural landscape determinants and indicators that were often marked or defined by a series of staging points along the coast, whose primary purpose was often seemingly unrelated to navigation (e.g. forts, shrines, churches, megaliths etc - Westerdahl 1991; Rault 1997; Parker 2001:33). Some features were often underwater or out of sight of the coast, and mariners therefore required a serial mental

map that recalled the progression of these features, their associated stories and meanings, and application to landscape usage. Parker (2001:33) has suggested that there was an “underwater landscape” that mariners used for navigation, which was also shared by fishermen. Citing Thompson (1995:62) he demonstrated that:

The lore of fishing was passed down for generations, together with an intimate knowledge of the seabed for miles around. The men were as familiar with the sea bottom as the farmer with his fields...Never written down, these marks were jealously guarded and passed down from father to son.

Many studies have documented the widespread use of encoded meaning in the landscape for navigation. “Natural” and artificial features often formulated routes through the sea, which were sometimes used by both humans (and even spiritual beings) to navigate by (Roe 2002). In his study of the Melanesian community of Marovo Lagoon, Hviding (1996:31, 238-9) demonstrated that physical cultural constructions, such as shrines and ancestral or ritual monuments, both served as validations of ancestral ties to the reef, and as navigational beacons. The sequence of travel through these routes was reinforced by informal oral traditions and folklore. Many other maritime societies worldwide utilise similar understandings of ancestral landscape monuments for sea travel (Lewis 1994: 345-51, 364-71; Westerdahl 1994; Parker 1999). The significance of maritime routes was recognised by Hviding (1996:31) as “simultaneously repositories and mediators of history, by virtue of containing signs of the past and present open ended relation and encounters across borders, social and cultural”.

The investigation of sailing routes provided linkages between terrestrially based settlements accessed via the water and other aspects of maritime life. However, sea route identification is challenging owing to the dynamism of both its environmental and cultural determinants. Sailing routes were affected by many other landscape features, including seabed change, mechanisms of access control (e.g. defensive barriers), route markers (both physical and cognitive), vessel type, trade and social relations, and cultural practices. Changes in any of these factors would have effects on routes and destinations (Westerdahl 1991). However, as demonstrated by Westerdahl (1992:7), the spatial arrangement of artefacts and features within the landscape was often deliberate, and therefore examination of regional scale patterning of archaeological sites may reveal cultural practices associated with sea route use.

A major problem for maritime cultural landscapes identification has been how to recognise past sea routes. Parker (2001:25) has advocated that the artefacts (from isolated losses and jetsam) and other assemblages (from shipwrecks) required for sea route identification would be neither easily found nor frequently encountered. However, it is not clear how many people have really looked for these given the focus on wrecks. This point will be investigated in further detail in

this thesis, where it is therefore proposed that identification of new sources and types of artefact assemblages could facilitate wider investigation of maritime landscapes and routes, particularly in regards to tourism.

VI) Alternative Sensory Perceptions and Ancestral Knowledge

Landscape perceptions are not limited to visual stimuli and the importance of other senses, such as smell, touch, sound and taste has been predominantly overlooked in favour of landscape dimensions that are mostly visually appreciated (Ingold 1993:170; Darvill 1999:107). The existence of alternative sensory knowledge networks has been recognised by a number of terrestrially based landscape studies (e.g. Evans 1966). Numerous indicators such as croaking frogs, birds flying inland, unusual animal behaviour (Kerr n.d.:21; Goldsmith Carter 1945:10; Ross 2005; Schwab 2005; Berhane 2006) or distinctive earthy smells have been informally used to herald changes in weather, and other ecological changes have been used to signal seasonal availability of naturally occurring economic resources.

Alternative sensory perceptions and ancestral knowledge have been noted as essential landscape components in many maritime studies, especially when used by mariners to navigate through their own territorial waters (Gladwin 1970; Johannes 1992; Hunter 1994:262; Lewis 1994; Parker 2001:32, 36). Reflected sounds from cliffs in fog, and the smell of smoke, farm animals or mown crops, have all been used as portents of the approach to land (Parker 2001:36; Kerr n.d.), and are observations that have been verified through this author's personal experience. The use of seemingly intangible features to navigate in maritime landscapes has been noted by Parker (2001:32):

The sea is not formless or featureless: even in deep water, a ship's position and direction can be gauged from the sun, the ocean swell, flotsam, seabirds, clouds on the horizon... the stars (provide) a two dimensional map...How near land may be judged by distant clouds, by releasing doves, or ...the colour of the sea changes.. and (changes in colour of seabed) sand...is said to be the indication of an approach to the Bristol Channel.

Goldsmith Carter (1945:14) recorded that the distinctive sound of the wind through the reeds, or thundering through the chimney tops, was an indicator of an approaching storm in Britain. Many indigenous landscape studies have documented the importance of these other senses for landscape recognition, spatial orientation and stimulation of historical memory (e.g. Gladwin 1970, 171-2), and the significance of these aspects has been further recognised by ethnohistorical and/or ethnographical accounts, as well as in literary sources (Thoreau 1865; Proulx 1993:176).

Numerous offshore navigators were able to perceive the presence of land from a great distance offshore, through the subtle changes in wind, swell movement, current, cloud, water efflorescence or discolouration, fish and seaweed types, bird species and numbers, light patterns reflected off coastal lagoons (Reisenberg 1976; Lewis 1976:24, 1994; Meyers et al. 1996:15), while local knowledge of star constellations at given latitudes aided relocation of home islands on return journeys (Lewis 1976:25). Furthermore, local fishermen often demonstrated particularly detailed knowledge of particular fish species' habits and habitats, local indicators of migratory and seasonal availability, and exploitation practices which were based on previous collective ancestral experience (Reisenburg 1976:94-8; Iversen et al. 1990; Johannes 1992; O'Sullivan 2001:270). These observations suggest that maritime cultural landscapes were also shaped and maintained by the development of local specialist knowledge, which was held by experts in this field and passed down to successive generations via folklore and oral histories. This understanding implicitly recognised the dynamics of physical landscape change over time, but also that these determinants were cyclical and predictable, and this knowledge was a commodity used to establish power and status (Lewis 1994: 244-5; Irwin 1992:220). Perhaps the best known are the traditional Pacific Island mariners who structured the sea through the use of place names to form a cognitive map of the region, where island, reef, shoals and currents names were used as signposts for navigation through the seascape. Navigation was a trade unto itself in a number of Polynesian and Melanesian societies, and as such this specialised and sensory knowledge was retained by a class of local master mariners, who acted as the storehouse of maritime knowledge for the community (Reisenburg 1976:92; Lewis 1994: 32-4). The local knowledge held by the navigators varied between cultures, and mariners often used different cultural markers to travel the same route. Similar observations in European or colonial contexts have been made by numerous other researchers (e.g. Thoreau 1865; Westerdahl 1992-2003; Fox 2001; O'Sullivan 2001).

VII) Environmental Change

Landscapes are subject to both ecological/biological and physical environmental change as a result of cultural, climatic and geological influences and disturbances. Many studies have recognized the impact of environmental manipulation and alteration on the landscape. In particular, investigations of palaeo-ecological change of the Australia/Pacific region have shown that landscape utilisation may be archaeologically visible through indirect evidence of altered landscapes in the form of erosion caused through burning and land clearance (Kirsch and Yen 1982: 329; Spriggs 1986; Golson 1992; Gosden 1992; Hather 1992: 73; Head 1994; Kirch and Ellison 1994; Kershaw 1995). Other studies have demonstrated the influence of changing coastal formations on landscape use, including uplifted terraces (e.g. Chappell 1974; Groube et

al. 1986) and drowned landscapes (Hiscock 1993; Flood 1995:212-20). Intentional change to modify and mould the landscape to reflect pre-conceived ideals have also resulted in widespread environmental change (e.g. Gibbs 1997), particularly through the introduction of exotic plant and animal species (e.g. Yen 1991; Gosden 1992; Spriggs 1997).

Coastal shoreline change has been recognised as an important determinant of cultural landscape evolution (and consequent remnant site locations), not just physically (e.g. Cushnahan and Staniforth 1982; Boyd et al. 1995, 1996a, 1996b; Indruszewski and Gluzniewicz 1998; Indruszewski 2001; Howitt-Marshall 2003:4), but also cognitively (e.g. Westerdahl 1991:109, 2000:11, 2002b:61; O'Sullivan 2001:260; Parker 2001:24). Seabed change can include geological uplift, rising sea levels caused by flood/inundation or subsidence, shifting sandbars and coastal erosion, and can have marked effects on not only the development of maritime routes, but also the diffusion of culture and society (e.g. the development of a voyaging nursery for the Pacific Island navigators prior to sea level rises over time - Green 1994; Spriggs 1997:20, 28). Shoreline change can also be the product of cultural phenomena, such as infill encroachment where key elements of settlements migrated seawards over time (Parker 2001:30), dredging or land modification. This suggested that far from being deterministic in nature, the environment formed part of a dynamic interaction with humans, in which it both changes and is changed by human interaction. Gosden and Head (1994:113) recommended that the challenge presented for cultural landscapes studies is to expand beyond environmental deterministic studies, to include social change and action and interaction to address the "social landscape". They suggested that the integration of cultural observations and history (often accessed from archaeological, anthropological and folklore data) with studies of environmental conditions and change enabled the evolution and inter-relationship between both processes to be examined concurrently.

Dynamic change of physical coastal landscapes often affected not only the categories of activities that could be undertaken in given areas, but also the types and designs of vessels and maritime infrastructure used to operate in those regions, the location of ports and anchorages, and the availability of economic resources. Several cultural landscape studies of shoreline change have shown that in addition to affecting the site and subsequent design of ports and harbours, vessels and maritime infrastructure, shoreline change also affected cognitive perspectives of landscape that may then be reflected archaeologically. Westerdahl (1995:2, 2000:13, 14) proposed that unique vessel designs would be built that reflected not only their types of operational environments; cargo carried; available resources (for ship construction), activities undertaken, and the routes traveled, but that they were also to suit the character of the harbours and ports they serviced and vice versa. This implies that there is a key relationship

between vessel/maritime infrastructure design and location, and the environment, which will be deeply rooted in maritime social practice and perceptions. Westerdahl (1995, 1998a, 1998b) termed this approach “transport zones” which referred to the vernacular, traditional material culture and associated practices and folklore which was often reflected in other traditions besides those in the maritime field.

VIII) Social Hierarchy

The role and complexity of social relations have been shown to have pronounced effects on landscape construction. This theme was explored by Gibbs (1997) who argued that indications of corporate paternalism in the social hierarchy of a nineteenth century mining town were evidenced by the prominent physical location of the mine’s owner on a rise, with the variously ranked subordinates scattered accordingly further down the hill. He suggested that these idealized landscapes may have been used to recreate and legitimize the hierarchy and social order of the town, a sentiment echoed in several other industrial landscape studies (e.g. Morozowski et al. 1996). Other researchers have recognized that landscapes also epitomize and reflect the changing societal structure and status present in various scales of community (Aston 1985; Bender 1992:3; Perry 2000).

Social hierarchy is also often embedded in ancestry, and the associated requisite demonstrations of roots to (and knowledge of) that lineage, be it familial or communal. This knowledge is often used as a social tool to isolate those who do not have the requisite ancestry. As such, the demonstration of ancestral understanding and communal belonging is potentially in itself another mechanism used for structuring the social landscape (Bender 1992:3).

These aspects of social divisions based on ancestral knowledge are particularly relevant for maritime communities worldwide. Although fishers and other mariners occupied and utilised the sea, they also inhabited the land, and as such formed networks that extended into terrestrial areas. Their landward activities often influenced the placement of settlements which were jointly shared by non-seamen. Although mariners recognised the land and water as integral components of their holistic world, they often used their connections to a particular maritime community and/or profession as an expression of who they were, contributing to the hierarchical differentiation of terrestrially based communities. Nautical knowledge was often used to distinguish a social class in Polynesian and Melanesian societies (Irwin 1992:220; Lewis 1994:32-4, 244-5). The specialist knowledge of boatbuilding and navigation was often based on hereditary skills transmitted through social practice and experience, and Westerdahl (1998a:9, 2003b:18) proposed that there was a recognisable social hierarchy based on occupation in

maritime communities. He advocated that maritime communities were very conscious of belonging to a given social group, and often established their identity in opposition to the “others”, who were usually referred to as “landlubbers”. Through demonstration of knowledge of traditional maritime skills, associated folklore and history, local environmental conditions, and the natural history and geography of local economic resources, individuals could claim membership of the nautical community as “seamen” or “fishers”. Although this was a distinctive characteristic of a maritime community, this concept might equally apply to terrestrially based professional/occupational groups, such as in farmers, blacksmiths etc. Social hierarchy and class distinction, and its subsequent effects on relationships and archaeological signatures therefore represent important landscape components that will be further explored in Chapter Eight.

IX) Gender

It is indisputable that the sea was used by both men and women, but often in different ways. However, gendered studies of Western historic maritime communities have only recently begun to emerge (Lydon 1993; Adams 2001:304-5; Flatman 2003), but have been common in Indigenous studies (e.g. Bowdler 1976). As Westerdahl (2002b:54, 2003a:475) and countless others have observed, commercial and naval shipboard life was very much a male landscape that was seldom experienced by females, and hence was not often an active part of their physical world, even though it may have been part of their cognitive landscape. Some studies have shown that even though women did not generally go to sea on vessels to work, they played an active role in maritime societies that has until now been inadequately explored. In Ireland for example, O’Sullivan (2001:261) demonstrated that although the role of women was largely confined to the foreshore, they still played an active part in the fishing industry, particularly in gathering shellfish in the intertidal area in coastal Irish communities in the eighteenth century, and later as fish processors/ cleaners in the herring industry. Women often became the *de facto* heads of households whilst men were away at sea (Flatman 2003:3), which further demonstrated how the marine environment actively shaped women’s worlds. Other studies have recognised that gender differences may also be evident in the landscape (e.g. Rotman and Nassaney 1997). Given that almost every maritime community worldwide also incorporated women who were related to seamen and fishers, gender studies clearly present another opportunity to further investigate different perspectives of maritime cultural landscapes.

X) Transport Ideals and Landscapes

The notion of transported landscapes is widespread in Pacific Island literature (e.g. Gosden 1992, 1997; Irwin 1992) and occur where cultural traditions were transposed from one area to another, and included not only physical manifestations (such as economic food sources and material culture), but also cultural practices, beliefs and ideologies. Similar observations have been made during ethnographic studies of immigrants to new lands (e.g. Thoreau 1865; Gibbs 1995:23; 1997). Many industrial communities often relocated in response to changing resource availability (e.g. the many world-wide gold rushes), and transported their cultural practices and beliefs with them.

Maritime communities were particularly inclined to relocate their shore-based activities in response to the movement of resources, and this was especially true of fishing based communities which followed seasonal fish stocks (e.g. American whaling communities - Mawer 1999:47, 85). The concept of transported maritime cultures has been investigated by many researchers in the Pacific (Gladwin 1970; Lewis 1980, 1994; Irwin 1992; Gosden and Head 1994:114) and Northern Europe (Westerdahl 2003a:481), and the transposition of maritime settlements often led to expanded networks of communities and settlements which shared similar transported beliefs and practices.

XI) Ritual/Superstition/Symbolism

Ritual, superstition and/or symbolism are almost universal themes in cultural landscape studies. Power and Ritual landscapes associated with religion, superstition and spirituality, and their role in shaping cognitive landscapes either through associated voluntary/enforced access and/or restrictions, or ritual practices and observances were a common theme in several landscape studies (Hunter 1994; Parker 1999, 2001; Westerdahl 2003a). Although the substance varies in aspect and dimensions throughout the world, these phenomena form components of powerful belief systems that are present in every culture on earth, and are particularly prevalent in maritime communities. This was recognised by Jasinski (1999:14), who commented:

Some of the cognitive structures are essential for purely practical functions to be able to operate in the form of social practice. Utilisation of natural resources of the sea requires infrastructure in the form of settlement close to resources, technology transport routes, etc, but also a complex network of social norms and directives, which, together with ideology (including aspects of symbolism, mythology, religion and language and other forms of communication) constitute a cognitive system that is essential for a specific population to be able to function as a society in a concrete territorial entity

The ideologies of superstition, ritual and symbolism may or may not be divisible within the landscape, and are often inextricably interlinked, but for the sake of organisational ease of the argument will be addressed individually below.

(a) Superstition

Maritime communities worldwide have been noted for the entrenchment of superstition and mythology within their cultures (Jeans 2004:304). There were many superstitious beliefs outlining prohibited (taboo) items onboard vessels, which included women (in particular), religious personnel and land based (clawed) animals (Westerdahl 2002b:53; Jeans 2004:312, 323). Westerdahl (2002b:58-9) recorded practices of offerings to the sea in Norway, along with prohibited names which could not be spoken during the voyage, which included the taboo items mentioned above, but also certain types of fish, the direct route to fishing grounds, the sky and other natural phenomena, or the names of saints. Mention of the sea and these names could only be used from the land, giving rise to the use of alternative toponymy. Areas with negative (taboo) names were avoided, reinforcing previous observations concerning the multivalency of landscapes perspectives between those based on land or the sea. Similarly, many of the Pacific Island studies also exhibited various degrees of site or place avoidance rooted in superstitious beliefs (e.g. Lewis 1990; Hviding 1996: 250-8; Meyers et al. 1996: 7; Dale et al. 1999; Roe and Taki 1999 etc).

Religious observance may be viewed by some as a form of superstitious practice. Some authors (Hunter 1994; Parker 1999, 2001; Westerdahl 2003a) have reported the constraints of religious observance, and that the location of physical sacred structures have played major roles in the construction and use of both cognitive and physical landscapes, through temporal and physical regulation of maritime cultural activities (e.g. restricted activities on holy days, demarcation of navigational routes using church steeples etc). Ecclesiastical authority was also evident in regional toponymy (Westerdahl 2003a: 482). The importance of superstition to modern day fishermen and the suspension of maritime activities on days of religious observance were noted by other studies (Lethridge 1952; Duffy 1992 as cited in Parker 1995:94; Hunter 1994:262; Jeans 2004:308), and may be traced back to the avoidance of the utterance of ecclesiastical names at sea.

Westerdahl (2002b:65) has suggested that maritime superstition was more than mere curious beliefs. It may in some cases form integral components of a belief system that approaches a cult status, but never reaches a religion, and which transcend the land/sea divide (Westerdahl 2002b:65). Many other belief systems were grounded in superstitious practices, which in some

cases have left tangible archaeological remains (e.g. Evans 1966; Dean 1997; Anon. 2000; Eastop 2001; Hoggard n.d., 2004), and therefore superstition represents an essential landscape component for investigation.

(b) Ritual/ Initiation

Many cultures use initiatory ceremonies to mark the changing status of children into adults. The initiates are subjected to a liminal period during which time they are separated from their ordinary life, subjected to ritual practices (sometimes with a training aspect) and often physical stresses (e.g. scarification) or dangerous situations, before returning to society ritually reborn as mature members of society. This “rite of passage” was (and still is) an important component of transition into manhood for many boys in many cultures (Seymour-Smith 1986: 152). These types of rituals are important considerations for landscape studies, as they often represent the opening of previously restricted landscapes to “new” adults, and sometimes constrained access to previous childhood worlds. These types of ceremonies may therefore be highly influential in understanding the dynamism of landscapes from childhood to maturity, where and when the boundary between exclusionary landscapes is crossed, and new perceptions of life (and hence new landscapes) are introduced.

The transition from land to sea (and vice versa) was recognised by Sogness (cited in Westerdahl 2000:12) as a possible “rite of passage”, where the time spent at sea represented the liminal period away from normality, after which the participant would return anew. The notion that the sea represented a metaphorical passage boundary from the structured terrestrial landscape to other worlds across its untamed chaos has been further explored by Westerdahl, who drew analogies between boatbuilders and shamans, both of whom facilitated access between two different worlds. Many maritime societies have demonstrated instances of this concept, and Westerdahl (2002b:54-5, 2003a:484) suggested that the sacred significance of some “holy” islands may have been linked to this notion. He identified a number of worldwide maritime initiation sites from oral traditions (the best known is the crossing of the line at the equator) which were linked to predominantly hazardous geographical locations (such as peninsulas or bay entrances) throughout Scandinavia, Continental Europe and abroad (e.g. Cape Horn, Gibraltar, English Channel). These localities were always places of transitions to other coastal locations, which were dangerous for those not familiar with those waters (and sometimes even for experienced mariners). Some were at once landfalls and embarkation points for sea crossings, and also marked the borders of the cognitive transport zones or ‘the maritime cultural regions or areas’. Although actual ceremonies did not take place, Westerdahl (2002b:55) concluded that the passage itself was particularly important as a type of baptism at sea, a rite of

(initiatory) passage that was only known to ‘local’ fishermen and mariners. These rites of passage offer potential insights into the psyche and cognitive landscapes of mariners, and will be further explored in this thesis in Chapters Six.

(c) Symbolism

Culture consists of more than just an economic way of life, and Jasinski (1999:10) recognised that symbolic landscapes offered insights into the power structures and belief systems that were part of everyday life.

The landscape was used by people to write their history, materialise their ideology, and document their life instead of using paper, therefore the landscape had to be loaded with strong symbols...(This) can also be applied to maritime sphere, which in itself constitutes something distinct in human mentality and brings us closer to past notions of the sea.

Symbolism represents overt and covert attempts to transmit ideologies and belief systems that are tied to physical entities. For example, churches were often placed on prominent positions to act as navigational marks to avoid dangerous areas whilst symbolically providing similar guidance of the soul. Likewise many execution sites were deliberately placed so they could be viewed both from the sea and land both for point of reference, and to reinforce authoritative ideologies against crime. Burial mounds in Northern Europe were also known as symbolic markers of the ritual landscape, as they served as navigational markers, and also as tangible territorial statements of demonstrated ancestry rooted in a physical structure, whilst reinforcing specific cultural beliefs regarding the afterlife (Jasinski 1999:15, 16; Parker 1999, 2001:35; Westerdahl 2002b:59, 2003a:486). The sea by virtue of its grandeur and ferocity has always evoked an aura of mystery and uncertainty, which has heavily influenced literature, art and ethnographic tradition and led to powerful symbolic influences of maritime landscape perceptions (Hunter 1994:263). However, Hunter’s observations suggest that symbolic aspects of the sea also exist based from a landward perspective, and that this is romanticised, overplayed, and emblematic of the seafaring profession itself.

XII) Memorials/ Monuments

Auster (1997) has argued that memorials and monuments are also significant landscape features, as their placement is designed to imbue and stimulate recollected meaning in the landscape (of a place, person or event). Morgan (1998:103 as cited in Gough 2000:214) reiterated this stance, and maintained that memorials acted not only as aesthetic devices, but also as an apparatus of social memory. A memorial monument therefore represents the physical embodiment of a

person or event that would otherwise be lost in time. However monuments also attract other thoughts that will be cognitively inscribed onto them over time, and these collective associations themselves become a palimpsest of community values (Auster 1997:224; Gough 2000:214). Monuments also represent to some degree an appropriation of landscape, where the monument is used to insert meaning into what might otherwise be considered a meaningless or “natural” landscape (Auster 1997:224). These values often represent the official or “right” view for that period (Gough 2000:214). Taken further, monuments may also act as territory markers, stamping ownership by reaffirming ancestral ties and official correct histories to the landscape. The nature and structure of war memorials has also altered since the end of WWII, and they have become less obtrusive in the landscape which is related to the changing attitudes to war (Ingles 1998; Gough 2000:214). Furthermore Gibbs (2005:57-60) has noted that memorials to shipwreck victims offered a substitute place to mourn when the actual grave (i.e. the shipwreck) was unreachable.

4) Discussion

Many studies do not address all aspects of the cultural landscape approach, and focus purely on one component only (e.g. archaeological sites), and should therefore more appropriately be referred to as archaeological landscapes studies. Others have focused purely on ethnography or anthropology, and ignore the physical aspects of the landscape, while other researchers have studied the environmental aspects of topography to the detriment of culture, again under the landscape banner. The current study advocates that it is only through consideration of all aspects of cultural landscapes that a truly holistic representation of cultural landscapes can be achieved.

The resurgence of interest in regional archaeological inventories worldwide (this time for maritime archaeological sites) reflects a growing awareness of the existence of culture beyond the waterline boundary, along with recognition of the significance coastal, littoral and maritime infrastructure sites, which have until the last decade been largely unexplored. Many maritime studies have undertaken cultural landscape studies, but often do not address the full range of data sources that are available and underpin the concept.

This chapter has investigated a range of approaches to cultural landscape investigation, and has identified the following synthesized underlying principles and concepts as worthy of further investigation:

1. The cultural landscape concept is ambiguous and requires further refinement;
2. History is tied to cultural landscapes through oral history/toponymy/archaeological sites;
3. Land and sea form seamless components landscape, and should be studied concurrently;
4. All landscapes are cultural, and even “natural “ (unmodified) places have meaning;
5. Landscapes are continuous, dynamic and evolve over time;
6. Landscapes are multivalent and overlapping;
7. Empty space is a significant landscape feature, and is often used to construct landscapes of exclusion;
8. Authoritarian structures create landscapes of power, which often lead to landscapes of resistance;
9. Technological change is a dynamic factor in landscape evolution and change;
10. Actions and events are as important as the subsequent archaeological signatures they generate;
11. Sailing routes and landscapes of movement represent key landscapes/ features which are structured by social knowledge, practice and ideology;
12. Alternative sensory perceptions and ancestral knowledge are key indicators of landscapes;
13. Environmental change shapes and is shaped by cultural landscapes;
14. Social hierarchy plays a key role in landscape formation and change;
15. Alternative landscapes can be accessed through gender studies;
16. Cultural practices, ideologies and beliefs are transported along with people; and
17. Ritual, superstitious and symbolism play a vital role in the determination of landscapes.

Analysis of several different types of studies revealed stark differences in data source types. Bender's (1992) study of Stonehenge was undertaken without the benefit of ethnography, and relied solely on archaeological data sets to enlighten our understanding of the landscape. In contrast, many Pacific Island cultural landscape studies (Gladwin 1970; Roe et al 1994; Lewis 1976, 1980, 1994; Hviding 1996; Roe and Taki 1999) placed heavy weighting on ethnographic and oral history data sources. The collection of oral histories and use of ethnographic data sets is pivotal in many indigenous cultures around the world for informing of the significance of both tangible and intangible landscape features. In some cases, no archaeological data was available for sites which evidenced high social and cultural significance. Westerdahl (1980, 1991, 1999), Jasinski (1999) and Hunter (1994) also used similar data sources for their studies of maritime cultural landscapes in Northern Europe, but further exploited archaeological and historical sources where available. Conversely, those researchers investigating historical landscapes were informed by similar data sets to Hoskins (1955), who displayed a heavy reliance on historic data and oral histories to enlighten his study landscapes. These are important observations as they demonstrate that different data sets are being accessed to

investigate different types of cultural landscapes. This aspect will be explored further in the next chapter, where the types of data available for the case study area will be explored in further detail.

The cultural landscapes approach is evolving, and an accepted methodology for the identification and analysis of maritime cultural landscapes is still being considered (e.g. Parker 2001; Jasinski 1999, Westerdahl 1991, 1992, 1999, 2000). The development of a methodology that would aid cultural landscape recognition and study offers the potential to provide significant insights into past behavioural traits that explain regional and local spatial trends in archaeological sites occurrences, both on land and at sea.

To date, there have been thousands of “cultural landscape” studies, all with their own derivation and interpretation of the concept. However, the application of a cultural landscapes approach is still ambiguous and largely undefined. The term landscape also has biological and scientific connotations used to describe the topological, environmental, geological and other physical aspects of the land. This terminology is often loosely used within archaeological studies under the banner of landscape research, which actually does not address the cultural and social aspects defined by cultural landscapes literature. So far, a methodological approach to documenting and analysing cultural landscapes has yet to be fully outlined. It is clear that there were a diversity of approaches and a multiplicity of methods that could be used for landscape analysis, but there was never one method prescribed.

After consideration of all the above sources, it has become clear that there would never be one acceptable methodology for the examination of cultural landscapes, due to the variation and diversity of source availability and possible methods that could be utilised. For this reason, the use of singular defined methodology would be at odds with the very ambiguous nature of cultural landscapes, so it was realized that it was more appropriate to specify the methodology utilised for this study to analyse a colonial Australian maritime cultural landscape.

This thesis will use the salient points outlined above to investigate an Australian case study area, that of the coastal township of Queenscliff in Victoria, Australia. In the next chapter I will explore this new configurative approach to demonstrate how these points may be practically applied to a study area, and will outline the resources and data sets available. I will use these concepts and data sets in a more nuanced way to examine the various communities, their social structures, and relationships to the sea to gain an understanding of the complexity of the Queenscliff’s residents’ maritime world and the diversity of cultural landscapes that span the land/sea divide.

It is the archaeologist's sadness to have to study people through material remains, chipped flint, burnt clay...but it be the ethnographers madness to try to comprehend the complexity of culture through one kind of expression. (Glassie 1982:405)

Chapter Three: Methodological Approaches to Cultural Landscapes Investigations

1) Introduction

Cultural landscapes are complex and ambiguous, and are experienced by individuals and communities at many levels. To access the fullest range of the possible landscapes requires the consideration of multiple and highly diversified data sources, produced by many different people and/or organisations for various reasons. These data sets are often not complementary, but may be influenced by highly conflicting viewpoints of similar events and/or places. This is the conundrum of cultural landscape studies. Whilst holistic analysis demands units of study, we need to recognise and explore diversity within and between landscapes, but what is the best way to do this if the data sources are disparate.

Although the multivalency of the approach is one of its strengths, it is also an inherent weakness, as in the past specific areas of landscape have been allocated one meaning only, due to its association with a specific group. Furthermore, any external thematic differentiation imposed by the researcher to distinguish between landscape participants within any study area applies analytical units that may not be truly representative of their actual landscape utilisation, and may not recognise the multiplicity of landscape values and inter-relationships associated with any one area. How can we meaningfully distinguish between participants without imposing restrictive (and often unrealistic) divisions within the community?

A further problem exists in that various data sources often contain inherent bias for or against particular groups of landscape users, and that some participants may produce weaker or less visible signatures of their presence. Different types of data sources may also not be fully accessible or even available in any particular area, and therefore different community groups may not be represented equally (or at all) by the same data source. To further complicate the issue, the ambiguity of the theoretical paradigm also extends to the methodological approaches applied to investigation of the landscapes.

This thesis will demonstrate a methodology for accessing maritime cultural landscapes will be shown to have great utility for examining other analogous nautical communities. This chapter

will examine the various types of data that are available for analysis and will briefly scrutinise their complexities/shortfalls and applicability for analysing cultural landscapes. It will specifically examine the types of data sources available for a study area, along with the reasoning for its choice. A methodology for exploring maritime cultural landscapes will be outlined, and several common maritime themes will be introduced to further explore the problem of differential representation of the types of data sources for each group/theme.

In this chapter, I will demonstrate the reasoning behind choosing the study area, and will explore the potential and actual range/complexities of data sources that were available for that region. The intricacies of the methodology will be examined in further detail, including the use of GIS technology to investigate how this ethno-archaeological approach can inform of social inter-relationships and cross cutting ties within the community.

This chapter will explore an innovative approach to the analysis of maritime cultural landscapes in an Australian Colonial setting. It will be shown that it is only through the recognition of the diversity of landscapes and the disparities/bias expressed both between and within their informative sources (which has in the past been perceived as problematic), that truly multivalent perspectives of the same setting/event can be accessed. This was achieved by the adoption of maritime themes identified in other analogous maritime cultures elsewhere and by the local community themselves, which were used to categorise activities and places within the township using GIS spatial and temporal data representation. This system not only enabled comparative analysis of disparate data sets, but also facilitated the examination of multiple landscapes perspectives that cross-cut other landscapes. Furthermore, the use of this technology aided comparative analysis of known cultural practices with relict sites, to produce ethno-archaeological observations of new types of thematic maritime archaeological sites and characterisations.

2) Choosing the Study Area

The application of the methodology for investigating nineteenth century Australian maritime cultural landscapes was perhaps best demonstrated when applied to a study area. In order to provide the maximum potential for examining the strengths, weaknesses and interplay between the sources and landscape approaches, it was necessary to undertake the case study in a region which was rich in documented data sources, and that demonstrated a wide scope of maritime cultural activities which reflected the complexity and ambiguity of landscapes that could exist in any given locality. The ideal study area would therefore exhibit an extensive range of maritime

industries and services, along with a range of maritime traffic from/to highly diverse destinations. However, it was recognised in the initial stages that the huge volume of data associated with any major capital city could potentially overwhelm or obscure any patterning evident within the data sets, and could consequently become unmanageable at this level of study. Therefore the ideal area would be located at the confluence of local, national and regional vessel traffic, but be sufficiently isolated from central metropolitan areas so as to make the study manageable.

A number of other factors were influential when considering an appropriate case study area. In order for the methodology to be successfully applied, a plethora of sources from every possible type of the data set (i.e. historical, archaeological, anthropological/ethnographic, folklore/oral history/toponymic, environmental etc) were required, as this allowed a thorough consideration of which types of resources informed of particular landscapes. Furthermore, as another objective of the methodology was to characterise archaeological signatures of thematic landscapes through ethno-archaeological analysis, then a full consideration of all the possible data sources was necessary for the potential study area if the methodology was to be applied elsewhere where some data sets may not be available. Given the scope of completing such a task within the time limitations allocated for this thesis, the ideal study area would therefore also demonstrate extensive existing documentation of some or all of these data sets. This study had also chosen to investigate the development nineteenth and early twentieth century colonial landscapes.

The Borough of Queenscliffe in Victoria presented an appropriate opportunity as a case study for a number of reasons. The township of Queenscliff lies at the confluence of several major shipping routes, and is the home for many major maritime extractive and service industries. The township has played a pivotal role in the development of the ports of Melbourne and Geelong, and was one of the earliest maritime centres in the state of Victoria, which was an important factor, as the origin point of European landscapes in this region was identifiable. The area had been subject to intensive maritime archaeological surveys since the 1980s, and in particular, shipwrecks had been thoroughly investigated for this area, both historically and archaeologically. Several other extensive historical studies had documented many of the major maritime industries and general history of the town. Furthermore, the author has had a long association with the town through involvement in many archaeological projects that were based in this area, including examination of local artefact collections declared during the Commonwealth Shipwreck Amnesty Project (see Philippou 2004). During this time I had

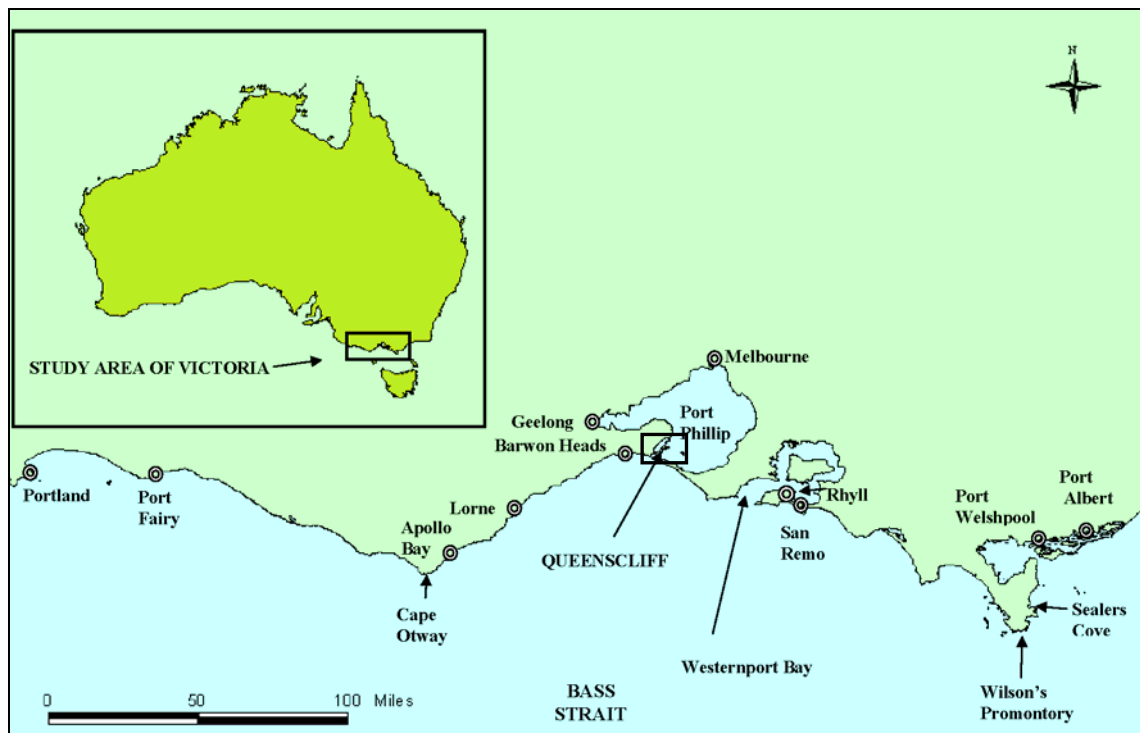


Figure 3. 1: Location of study area.

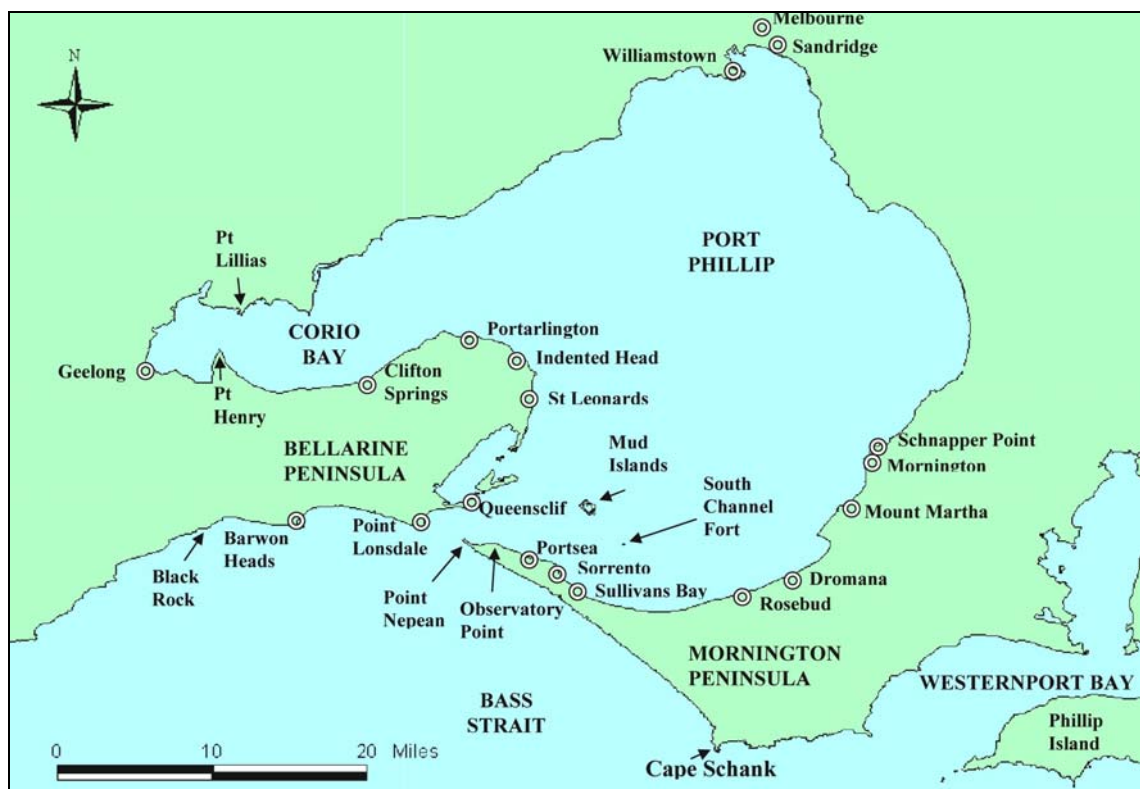


Figure 3. 2: Regional Places of Interest around Port Phillip.

developed a number of relationships within the community, which provided a potential network of informants for oral histories within the town. My associations with the community had previously revealed that many residents could trace their ancestry to the origins of the township, which offered potential opportunities to record deep and rich oral histories, traditional practices and folklore/ethnography. An expanded historical overview of the region, along with further reference maps of the study region referred to here are presented in the next chapter.

3) Data Acquisition: Types of Sources Available for Cultural Landscape Analysis

There are a wide variety of data sources available for investigation when analysing cultural landscapes. These include historical/documentary, archaeological, environmental/scientific, cartographic, anthropological/ethnographic/ethnohistorical and folkloric. Each data set has its own texture, character and strengths and weaknesses, and each will be considered below in further detail. This discussion recognises that many previous studies have already addressed the issues relating to the use of specific types of data, and in particular, the concerns surrounding the use of historic and documentary records. Where other data sources have been subject to less scrutiny, approaches are novel and innovative in this field, or their utilisation requires further justification they are considered in greater detail than other sources. Hence, some areas of this dialogue are briefer than others.

It should be noted that from the outset, every data source operated in a feedback loop to another, which drove the research to verify, challenge or modify previous observations and hypotheses as new data arose, and that the order in which the data sources and methodologies are presented here does not necessarily reflect the logical progression of the process, which was constantly evolving throughout the course of this study.

A) Historic and Documentary Resources

I) Documentary Records: General

(a) Overview

There are many levels of historical records. Official historical records provide access to authoritarian structures that shaped and regulated past societies, and therefore usually give a wide range of political and economic trends that may have existed at regional, state, national or international levels. However, these records predominantly focus on the recording of administrative, technical or political details/issues, usually at the expense of personal

perceptions and attitudes. Therefore, although these resources may facilitate access to global trends, world/national/state views and governmental attitudes, they present official views of the world and do not (usually) illustrate perceptions or behaviour at a local community or individual level. Local government and statutory authority records often provide better insights into regional official and mercantile/thematic maritime issues, as well as occasional glimpses of local ideologies, practices and behaviour.

Although historic and documentary records have played a pivotal role in historical archaeological investigation, this discussion takes into consideration the need for critical review of veracity and validity when using documentary sources (e.g. South 1977; Deagan 1988; Seashole 1988:92-3; Wood 1990; Keates 1996), and these aspects will not be discussed further here except where necessary, if particular sources that have not been widely addressed are being deployed. Indeed it is acknowledged that where some documentary sources may have previously been considered inaccurate representations, they may actually be useful as representations of differing viewpoints of the same arena/situation, a notion that is central for the investigation of multivalency in cultural landscapes.

(b) Local Documentary Sources and Historical Records

Documentary records were initially consulted to establish a chronological history of the areas to be investigated. Given the time constraints of this project, regional heritage syntheses and broad thematic histories were examined to obtain both potted and specific histories of the regional localities to be investigated. Although several overview histories of the maritime industries were available for the Queenscliffe region (e.g. Noble 1979; Tate 1982; Kerr 1985; Jones 1986; Kitson 1987, 2001; O'Neill 1988; Boyd 1996; Raison 1997, 2002; Inglis 1999), a review of these sources generally revealed that they inadequate for the purposes of this thesis, as they often lacked concise and comprehensive data regarding individual events and the installation of different maritime infrastructure that was still required for analysing the maritime landscapes and their overlap between industries. It was clear that a thematic chronological outline of many of the maritime services and maritime infrastructure sites in southern Port Phillip Bay was still required for many maritime themes (especially for the customs, defence, navigation, lifeboat, pilots, quarantine and tourism services) to ensure all relevant evidence had been collected and critically evaluated.

Where summary histories were not available, were incomplete or unreliable, they were supplemented with primary data sources. The time constraints of the project have meant that the research undertaken was not exhaustive, given the large numbers of sites to be investigated

and the regional approach taken. Chronological histories of the defence, customs, quarantine, lifeboat and lighthouse services, fishing and other extractive industries, and tourism were generated to enable comparison of events and infrastructure development within the area. Shipwrecks in this area had already been exhaustively documented and therefore further research to identify wreck sites was not required. However, no comprehensive documentation of stranding sites was available, although partial attempts had been undertaken (Williams and Searle 1963, 1964; Love n.d. 2006) so their general location and circumstances were recorded wherever they were identified.

Furthermore, as the project progressed it became apparent that some industries, particularly extractive industries (e.g. fishing, shell, lime burning and salt, guano and sand mining,) had not been recorded or evidenced minimal official historical documentation, and were revealed predominantly by anecdotal evidence from oral histories and historic memoirs. In these cases archaeological and oral history/folklore/ethnographical evidence would play a vital role in documenting the existence, nature and spatial distribution of these thematic landscapes (see below).

Many types of primary official governmental records were examined to generate summary histories for different maritime industries, and to identify installation dates for maritime infrastructure. These ranged from Harbour Masters records, Parliamentary Papers, Summary Contracts Books, Royal Commissions and other official correspondence. Privately sponsored sources included trades directories and sponsored histories, newspaper accounts and advertisements, personal diaries and memoirs. Because these aspects of historical research are standard approaches in archaeological research and have already been well considered elsewhere, they are not addressed in further detail here, but are more extensively discussed in Appendix A-1.

Several community members and historical societies had undertaken their own extensive personal research of this region (which in some cases amounted to decades of investigation), which included historical, archaeological and oral history information; these collections were made freely available for consultation. Private and government researchers who assisted with the project are listed in Appendix A-1.

A number of other sources not usually investigated in maritime studies were also consulted to investigate behavioural practices and perceptions of the area. Although maritime archaeologists have traditionally used official government “Notices to Mariners” to relocate historically known shipwrecks, this study innovatively utilised these sources, along with coastal sailing directions

(e.g. The Australia Directory - Yule 1968), to extract new interpretations of how mariners used the sea. For instance, official sailing directions were used in conjunction with hydrographic charts, and provided more detailed information for mariners such as indications of important landscape routes, hazards, and locations of other maritime infrastructure. In effect, these sources effectively repackaged and distributed a degree of local knowledge to outsiders as a risk management tool through the identification of preferential routes, local histories and toponymy, and official and unofficial practices associated with local maritime industries and services. These data sets not only provided insights into the areas used by mariners, but also those to be avoided. The former enabled prediction of potential archaeological sites and their possible signatures through descriptions of the types of infrastructure and associated behaviour, but the latter could also be used to indicate and explain empty spaces in the landscape. These documentary records were extensively used in conjunction with cartographic sources to better understand mariners' use of the maritime environment. Furthermore, unofficial sailing directions and vessel log books associated with specific maritime activities (e.g. those used by the pilots: Anonymous n.d.; Emerson et al. 1897-99) provided alternative indications of how maritime groups differentially experienced and perceived the nautical landscape.

Several photographic and artistic image collections were critically analysed to abstract contemporary attitudes towards a range of maritime themes. Photographs demonstrated a tangible reality not only of physical landscape components/features, but also of contemporary symbolism and perceptions (especially where they were posed). In contrast, created images (e.g. lithographs, paintings and drawings) reflected representations of a stylized reality which often conveyed underlying political, social and cultural agendas. These observations will essentially manifest themselves as the thesis unfolds in the thematic chapters below.

II) Ethnohistorical Accounts: Anthropological Accounts

(a) Overview

Many researchers have warned of the inherent biases in historical accounts through selective observer interpretation that does not reflect reality within the study community (Pipkin 2003) or politicised agendas (Flatman 2003:6). However, if these biases are recognised by the observer, these accounts can still offer valuable insights into the behaviour, practices and social structures of historical maritime communities; the biases themselves may inform of contemporary historical attitudes within and without the study communities.

Local newspaper accounts, which are often disregarded on the basis of their obvious bias, may provide insights into local viewpoints and behaviour that is not necessarily recorded in official historical records. Newspaper editorials, editorial correspondence and memoirs are often coloured with opinionated viewpoints, but were valuable sources of perceptions and beliefs of various local issues which are often never mentioned in official records.

(b) Local Ethno-historical Accounts: Newspaper Reports and private Memoirs

Newspapers have been widely exploited by maritime archaeologists to identify the locations of shipwrecks and the circumstances that contributed to them. Although the objectivity of local newspapers was often questionable, with a bias against the Melbourne dominated State government (which was often criticised for lack of action pertaining to many local infrastructure projects), it provided valuable insights into the psyche and rationale of many community residents that was not available in official historical records. These views were contained in the local editorials and personal community contributions, which proved valuable for later analysis of local community structures and hierarchy.

Queenscliff's local newspapers proved a particularly fertile ground of opinionated rhetoric. Aside from explicit details of various activities (including accounts of social events, tourist attractions and infrastructure construction) undertaken in the area, the locally published *Queenscliff Sentinel* often contained explicit accounts of important local issues, folklore and scandals, which often presented a startling contrast to mainstream documentary accounts. Of note were a series of individual memoirs/reminiscences of several maritime services and/or industries written by local identities, many of whom were original residents of the Borough in the 1850s which contained personal minutiae not evident elsewhere. Other early accounts were purportedly penned by tourists, although the authenticity of some of these accounts were suspect, as they may have been written as promotional material by local businessmen. These anecdotal accounts represented the first written oral histories and/or ethnohistorical accounts of the township, and extended the range of the subsequent oral history interview records (undertaken by the author and the Queenscliff Historical Museum) for the area back some 150 years (see below). Personal history accounts and memoirs of community members and local industries were also published in the modern *Queenscliff Herald* and *Rip View* newspapers. Other newspapers outside the region (including the *Geelong Advertiser* and Melbourne based *Argus*) provided balancing insights into general state events and wider community sentiments, in addition to the only coverage of news before the establishment of the local borough newspaper in 1879.

III) Cartographic Resources

(a) Overview

Although historical cartography represents another documentary data source, its' utility to identify past landscape utilisation areas and to predict potential archaeological sites made it worthy of further consideration. The numerous recognised problems with the use of maps (as outlined by Wood 1992:20, 26-7) were considered before incorporating cartographic sources into the project. Cartographic sources do not reproduce, but rather construct a reality that is peculiar to its creator, and selective representation of landscape features may often mask the underlying agenda of the cartographer. A map is frequently a "projected" or "inferred" view rather than an actual scene that reflects reality. These documents were regularly used by government bodies to express control and ownership of landscapes, and this was further complicated by imposed limitations on the information contained therein through restrictions on access and dissemination (Keates, 1996). The recognition of symbolism within a map may also demonstrate aspects of beliefs systems that were distinctive to the historical period in which it was produced.

Furthermore, charts and maps may represent the official world view, as decisions have already been made what to include and exclude, and what an area should officially look like. Maps and charts also provide official names for landscape features, which has connotations for how the landscape is viewed (and are addressed further in the toponymy discussion below). Although cartographic data is subject to the same creator biases inherent in all historic documents, cautious use of historic maps provided the opportunity for new insights into archaeological site re-location (Seashole 1988:92-3), delineating settlement patterns and analysing topographic changes.

Cartographic data sets also provided the opportunity to examine coastal changes in the study area. The advantages gained by comparison of updated series of the same historic map for time change analysis have been demonstrated by various researchers (e.g. Seashole 1988:98; Johnson 1997, 1998). Comparative analysis of these sources can often reveal significant temporal coastline changes (caused by reclamation, shoreline progradation/scouring, dredging or geomorphologic processes), which may often mask the present location of archaeological sites (Boyd et al. 1995, 1996a, 1996b; Indruszewski and Gluzniewicz 1998; Indruszewski 2001; Duncan 2002, 2003a, 2003b).

(a) Local Cartographic Sources

This study relied heavily upon cartographic data sets as many maps demonstrated a high level of accuracy that might enable relocation of potential archaeological sites that was often not available in other documentary sources. Unlike other documentary sources mentioned previously, there are particular nuances to cartographic sources that require greater attention.

Over 100 charts, plans and maps were examined to identify past features, maritime infrastructure and coastal environmental changes. These varied from charts produced by the earliest explorers to specialized thematic plans commissioned by local service providers. A number of these sources consisted of updated charts/maps, where new information was later reissued over older plans. When referencing these plans in the text of this thesis, the original cartographer is cited; along with the update information (e.g. Ross 1864 [updated 1903]). Many sources of varying scales and projections were used during this project, which, although problematic due to differences in generalization of features and topography/ bathymetry, still proved effective for the identification of the general locality and existence of archaeological sites. The problems of mixing plans of different scales was recognized when used for identifying potential field search and survey area, and the size of the search area was adjusted accordingly. Furthermore, many of the cartographic sources (especially the specialist military, tourist and local plans) provided indications of thematic cultural landscapes, in addition to local toponymic variations to official place names. Several modern cartographic coverages were available in GIS format, and were used in the geo-referencing process outlined below. These included coverages of cadastral land parcel boundaries (DNRE), Australian Hydrographic Charts (AHO) and geo-referenced aerial imagery (PMS). A list of chart and map types consulted are listed in Appendix A-1

What has previously been seen as map maker bias can be positively utilised in this study to examine the cognitive perceptions, values and ideologies of the surveyor/mapmaker. Hence what has formerly been viewed as a failure of cartographic sources was used to advantage to examine cultural landscapes of thematic groups (e.g. defence, tourism etc). As maps are created for specific purposes, they generally show only sites relevant to the creator, and hence in themselves are useful sources of cultural landscape data. A good example of this are the differences found between marine charts and terrestrial topographic maps. In the former, navigational features, prominent landmarks and bathymetry will be shown in great detail, while topography, street layout and other features not relevant to maritime navigation are generally excluded; in the latter, the focus is on detail for land features with water features generally excluded. The difference between these two types of mapping demonstrates what components

of the landscape are important to each surveyor and map maker. Other examples included tourism maps and amenity services plans, which further provided indications of significant landscape features and areas for those themes. Astute interpretation of plans therefore elucidated aspects/sites of various levels of community significance, and enabled further extrapolation of significant maritime cultural landscape features and behavioural trends.

Cartographic standards have changed over time, and vary accordingly with the author's purpose and precision. Charts had a high degree of accuracy from the 1850s onwards due to their use as a navigational tool, whereas tourist maps are more generalised as their use is for demonstration of location and attractions, where accuracy is not required. Varying standards of accuracy, along with production of maps at different scales for the study area was at first considered problematic, but was later reconciled through sympathetic use of plans of similar scales to examine aspects of landscape. As landscapes exist at many different levels, diverse scale maps/charts were used to examine landscapes of varying extents. For example, residential and shore based landscapes were analysed at a cadastral scale (e.g. 1:7 500), whereas maritime use of the bay was often examined using navigational charts (1:25 000 – 37 500). These produced observations based on different standards of accuracy, but were still within acceptable bounds when relocating archaeological sites. Use of the maritime environment was usually less precise in a locational sense than its terrestrial counterpart, and therefore relocation of archaeological sites in the terrestrial environment required more precise co-ordinates than those in the sea, which tended to be located over a much wider area.

The absence of cartographic records for some maritime groups (e.g. fishermen) was notable, given their constant navigation of the sea. This observation does not suggest that this group did not use charts, but suggests that their cartographic knowledge was stored and transmitted in different ways such as through oral traditions and folklore. This notion is discussed further below in the oral history section.

B) Anthropological Data

I) General

Anthropological and ethnohistorical records often provide deeper understandings of communities and individuals at a local level, through observations of cultural practices, behaviour, ideologies, traditions and belief systems. These records provide more intimate understandings of the dynamics of community relationships and social interaction that are often missing in other official records. Even though these accounts are often biased towards the observer's perspective, recognition of these prejudices further informs of contemporary

historical attitudes and community/official ideologies. However, the extent of the observers access to intimate knowledge is often limited by their acceptance within the community and their own ability to understand the underlying nature of the social interactions around them either from an outsider's or member's perspective. These accounts are by nature almost always insular, and are usually focused on local issues to the detriment of wider regional or international issues. Problems with using anthropological data have already been widely considered (see Dark 1995:42-47; Orser and Fagan 1995) and do not need to be discussed further here.

II) Folklore/ Oral Histories

(a) Overview: Folklore

Folklore presents a type of data source that until recently has been sparsely used in archaeology, and as such, requires further discussion in greater detail. Folklore sources generally present a tiered level of knowledge that is usually accessible in various stages/levels based on either hierarchical or membership status within a community or community sub-group. They can provide intense insights into individual and community level views and cognition, cultural practices and ideologies that may not be accessible elsewhere, or differ from accepted official historical accounts. These types of sources provide very personal or locally significant information that may vary even within that region. They represent alternatives to official histories, and often are encoded into local toponymy, stories, songs, superstition or beliefs, some of which may have relict or unknown meaning. As such, they may represent the only remnant data sources for aspects of long gone alternative cultural practices, beliefs and ideologies. They may not necessarily be representative of wider official or national/collective philosophies or attitudes, and may at times oppose them.

Folklore represents an informal framework for communicating culturally significant information outside official societal frameworks, which is incorporated into group customary thought and practice, and transmitted through oral and documentary local histories (Seal 1989:7). It has played a substantial role in the shaping of the landscape in many maritime cultures (e.g. Westerdahl 1980; Johannes 1992; Lewis 1994; Hviding 1996) where it dictated traditional usage of areas based on spiritual beliefs, superstition, tradition or caution associated with past cultural events, and often revealed underlying cultural realities that elucidated further aspects of relict cultural landscapes. This study adopted Gazin-Schwartz and Holtorf's (1999:6) definition of folklore which encompassed traditions and beliefs expressed in folk/mythology tales; place names; regular rituals and ceremonies; traditional oral literature and rituals; material culture,

social customs; and artistic performances associated with various social groups. This definition illustrated strong analogous properties to many elements of cultural landscapes analysis, and further reinforced the necessity for the inclusion of folklore in this study.

Many archaeologists have recognised the significance of folklore for enhancing archaeological studies (Glassie 1982; Burström 1999; Paynter 2002; Whiteley 2002:405-6). Although some researchers have argued against the validity of folklore as a reliable and accurate data source in archaeological studies, Gavin-Schwartz and Holtorf (1999:5) demonstrated that “archaeology is also perceived and interpreted by present (day) people”, and was hence subject to the same biases contained within oral histories. There is often a bias in favour of textualised societies’ records against densely coded oral narratives, as the latter are interwoven with complex cognitive cultural meanings. However, this problem is also inherent in historical records which are also products of political societies where what is the “truth” is defined by those in power in a particular social system (Whiteley 2002:408). Many studies (Glassie 1982; Joyner, 1989:18 as cited in Gazin-Schwartz and Holtorf 1999:11) have demonstrated the validity of the integrated use of oral histories and folklore and archaeological and historical studies, and the insights to be gained from anthropological studies, and that each discipline’s source could not be adequately understood without reference to the other. It has also been argued that the shallow time depth of nineteenth century narratives and oral traditions were of sufficient accuracy to be accepted by archaeologists as historical documents (Symonds 1999).

Folklore may also facilitate access to social meaning (both past and present) associated with archaeological sites, and their role in the formation of communal/collective cultural identities, where object age is of secondary importance to its interpretive value. In this context, folklore potentially provides crucial understandings of the cultural landscapes and the communities within them (both for landscape participants and researchers) when they are subjected to systematic analysis. Significantly, Gavin-Schwartz and Holtorf (1999:5) argued that folklore might illustrate the continued use and significance of archaeological sites after their initial deposition and periods of intensive use, the latter of which had previously been the only focus of archaeological studies. This observation has particular relevance for shipwreck sites, as will be demonstrated in Chapter Seven.

Some researchers (Gazin-Schwartz and Holtorf 1999:12; Symonds, 1999:118-9; Thoden Van Velzen 1999) have advised caution against recognising second-hand or invented accounts expressed as folklore, which are known as Folklorism. These accounts do not derive from the central core of a culture, but may present knowledge that have been introduced into a culture for political agendas, to promote economic interests (driven by tourism or entertainment) or from

other external sources proclaiming a detailed “forgotten knowledge” of that culture (e.g. previously recorded or popular folklore which has been (re)introduced to a region, or archaeologically derived folklore). In these cases, the folklorism may inform more about the social environment of the area than the actual factual history. However, it will be argued that even this type of “false” folklore is informative of cultural behaviour and is a significant cognitive component of landscape, which will be further elucidated in regards to tourism in Appendix D-3.

Folklore is accessed from a variety of sources including ethnohistorical and ethnographical documentary records, memoirs, toponymy and oral histories. Although it is recognised that these are very different sources, for the sake of convenience these resources will be addressed collectively here.

(b) Accessing Folklore: Oral Histories

Oral histories are used by different social groups both to inform and reinforce their own cultural identity (Young 2002:13-4). A number of researchers have recognised the inherent value of utilising oral histories to elucidate the cultural/social aspects of community life (that are evident in folklore) and which might not otherwise be evident in the historical or archaeological records (e.g. Yentisch 1988; Paynter 2002; Young 2002). Paynter (2002:S92-3) has stressed the importance of narrative for investigating alternative histories that are normally overridden by the predominant and often dominant social systems that influence written historical texts. Governmental and administrative perspectives often overshadowed the viewpoints of other cultural sub-groups within the community, and required investigations that delved beyond the dominant official histories for an area to present alternative or supplementary realities which may only be accessible through narrative accounts or oral histories or archaeological research. Paynter further suggested that extant material culture (often produced by the ruling class) is often used as tangible evidence to substantiate the validity of the accepted or dominant written or popular histories. The investigation of these alternative sources offers the opportunity to establish agreement or disjuncture between the dominant historical narratives. In particular, archaeological deposits present the opportunity to investigate mundane aspects of everyday life (e.g. rubbish disposal, toilets, drains) that often go unrecorded in more glorious observations of township life (this aspect is discussed further below in Section 4B). Although many researchers have advised caution during use (e.g. Coll 1977:17 as cited in Young 2002:13; Souter 2003), oral histories provide an opportunity to access traditional folklore and practices that when submitted to analysis and interpretation to derive their meaning, they can be recognised as a valid data source for landscape studies (Gazin-Schwartz and Holtorf 1999:17-9). Taken further,

it could be said that when examining oral histories the accuracy of the account is irrelevant, as it is the substance of the narrative which is of more importance as an indicator of personal landscape perspectives and ideologies. Therefore, it is recognised that multiple pasts will exist in regional oral histories, each with its own distinct qualities based on personal experience, a situation analogous with the underlying principles of cultural landscapes studies.

Finally, the concept of the maritime cultural landscape recognises that the local knowledge held by community members is the product many generations of collective knowledge. In effect, the recollections of these people exemplify a palimpsest of cognitive cultural landscapes and traditions that form part of their own current personal landscapes. Parallels exist with Pacific and other indigenous maritime societies where folklore and cultural traditions are used to reinforce the social identity and history within a community.

(c) Local Oral History and Folklore Sources

(i) Local Oral History/Folklore Interviews

A series of scoping interviews within the Queenscliff community were undertaken to assess the viability of this method and the availability of appropriate resources. Upon first inspection it became obvious that oral histories were clearly an important method of transmission of local histories within the township, and often evidenced information that was not available through other sources of historical documentation.

Numerous long-term Queenscliffe and Geelong residents were interviewed to determine the existence of a body of direct and/or informally transmitted knowledge of a range of maritime industries and services still retained within the community. Interviewees were selected for their demonstrated affiliations (either direct or familial) with local maritime industries, services or other activities (e.g. the pilots and lighthouse service, tourism [guesthouses, baths complexes, golf clubs], military, fishing, lighthouse and lifeboat services, boatbuilding, town services (cartage) and/or extractive industries (farming, firewood/bark trade etc). Most of the local participants interviewed were between the ages of 70 and 90, which meant many informants had first-hand memories of many of the events, themes and sites being investigated. However, some younger participants were included where they had strong collective knowledge based on familial ties from both sides of the family tree, or where they were directly involved in a major maritime industry that exposed them to the cognitive landscapes and collective knowledge of non family members in those services (e.g. the Ferrier Family – lighthouse and lifeboat service, fishing, tourism).

Other interviews were conducted with younger community members, who demonstrated lengthy family ties to the area (either as residents or as tourists). Further informants included government agency officials (e.g. HV, MDC, PV, SBICMC) who had derived knowledge of local sites through contact with the local community, or committee members, staff, members and volunteers associated with the various local museums and history societies (FQM; QMM; QHM - this aspect is discussed in further detail in Section 2c). These groups proved to be extremely helpful contacts, often directing the author to other sources and informants. The historical museums also held extensive oral history collections, whose informants had long since passed away. These recordings enabled the oral history approach to access personal recollections dating in some cases back to the early 1860s.

It was also clear from the initial scoping interviews that women played a major, though scantily recorded role in the dynamics of the town, and that the role of women in the town was often masked by the perceived more glorious maritime activities that dominated the social histories of the town. Therefore women were also interviewed to try to gauge the female perspectives of maritime landscapes, and their personal landscapes. Of those interviewed, most had connections to either the fishing, defence or tourism industries, and in most cases all three. Although many women helpfully assisted with this project, the potential for gender bias against a male investigator must be considered, and it is recognized that further insights may have been revealed had a female researcher been undertaking this investigation. However, it should also be recognised that the reverse situation might also be the case, where female respondent were more communicative with a younger male interviewer.

Queenscliff and the surrounding areas proved a fertile ground for oral histories, as many residents could often trace their familial origins back to five generations, and in some cases in the same industry. Rich oral histories were available for most maritime themes, especially where the participants were permanently based in the town. However, the transient nature of the defence forces generally resulted in shallower time depths for direct family involvement in the military recollections, which usually began when intermarriage occurred between the fishing and defence communities. Many informants offered perspectives into multiple industries, which provided useful overlaps for comparing and contrasting data derived from other sources and interviews, and for attaining different perspectives of individual places or features. Most informants were interviewed on multiple occasions, both to reconfirm previous data, and as new information was gradually revealed as a relationship (and a subsequent level of trust) was established between the author and the informants/community.

Each informant was interviewed with a set of standard predetermined questions (Appendix A-2), which were designed not only to identify places associated with various cultural practices, but also the specific nature and diversity of the activities undertaken there which would later aid in the identification of their possible archaeological signatures. Informants were also questioned regarding social relations in the township, their belief systems and superstitions, and intangible knowledge of the maritime environment. Unexpected leads were pursued, and were later incorporated into subsequent interviews with other informants to contrast the veracity of previous data. Informants were provided with a modern hydrographic chart (AUS 158), and asked to draw the locations of various areas which were either used by them or their families, along with prominent landmark features, names, archaeological sites or other relevant information (i.e. their physical and cognitive landscapes). In later interviews, after these charts proved too small in scale/detail to record some information (especially for terrestrial areas), local maps or road directories were used. Aerial imagery would also have enhanced the output of these earlier interviews (particularly where divers had detailed knowledge of inshore underwater sites) but this was not available at that time.

This information was converted to GIS coverages (layers) which enabled comparison with other data sources (see below for more details). For the sake of brevity, where informants are quoted in this thesis, they are referenced by their initials enclosed in square brackets (e.g. Peter Ferrier = [PF]). A summary of informants' backgrounds and personal/ancestral knowledge is presented in Appendix A-3.

Recollections from oral accounts often proved surprisingly accurate, particularly in regards to the nature and location of historical events, and subsequent archaeological investigations often substantiated the observations. In some cases oral histories provided the only documentation of some maritime activities, particularly in regards to extractive industries. However, it was noted that the information from some early published memoirs (e.g. Cuzens 1912; Dod 1931; Hunt 1999) had been absorbed into popular local history in some cases, thus influencing actual ancestral traditions or recalled memories. Nevertheless, as most of the observations in these primary accounts proved to be accurate (especially in an archaeological context) this did not dramatically affect the survey. Many informants referred to what was commonly known as "the early days", a vernacular term used locally to refer to the time of the town's establishment until approximately the mid to late nineteenth century. This term was also extensively employed in many locally produced historical accounts and was also therefore adopted for this study.

During the course of several interviews, some data was related that could be considered sensitive or libellous, and included the specific identification of people who were allegedly

involved in historical illegal activities. Although many informants often reiterated the same events, in these cases the names of the individuals concerned have been deliberately concealed during this study to avoid potential slander allegations and are referred to in the text as [nw] (i.e. name withheld). It should be noted that references to these events have still been included in the study, as they demonstrate important aspects of local folklore and in particular perceptions about wreck exploitation, but their inclusion does not indicate any value judgments on the author's behalf regarding their accuracy or legality.

III) Toponymy

(a) Overview

The importance of toponymy to identify maritime cultural landscapes has been addressed by many researchers (e.g. Holmberg 1991; Westerdahl 1980, 2002a, 2002b, 2003a; Whiteley 2002:411). People name places in ways that are significant to them, and examination of those cognomens may reveal interpretive insights into past cultural use of an area (Barber 1994:17). Events outlined in oral histories were often identified and encoded in place names that “materially objectify oral history in the tangible inspectable landscape” (Whiteley 2002: 410). Place names serve multiple purposes within a landscape. They may act as a reminder of cultural identity, through the cognitive preservation of famous persons, events and history; operate as descriptive navigational signs; detail historical events; associate cultural activities to geographical features; or endeavour to promote the virtues of an area to potential users, and are at once both a perceptive and tangible reminder of the community's distant past (Barber, 1994: 18). Toponymy cross-cuts other data sources, as it draws from a wide range of fields, and therefore has the ability to extract past cultural regional usages, and as such represents another source of data that may assist in defining a landscape.

Dwyer et al. 2003:19 further noted that fishing boat names (which were often named after familial women) also encode the sea with history, which mariners and fishers used to locate the owner within a field of relationships, of which the boat is a physical embodiment. Boat names therefore provided prompts of genealogical connections, which summoned an enormous range of mental and emotional images both for those on board and approaching them. Furthermore Dwyer (et al. 2003:20-1) observed that the bestowing of boat names further “constitutes existential space out of a blank environment”, which further personalised the seascape. The existence of these names reiterated the distinction between fishers and outsiders, as the insider always had knowledge of meaning which was often restricted from the outsider. Given the importance of nautical craft to any maritime community, the investigation of boat and ship names offers further potential insights into individual/community cultural landscapes.

(b) Local Toponymic Sources

Toponymic data for the study area was extracted from a variety of sources including historical records such as charts/ maps, survey notebooks and other historic accounts, particularly in ethnographic accounts and memoirs. Many toponymic derivations were explained in early sailing directions (e.g. Yule 1868; 1876) as allocated by early surveyors, which further reiterated the official exploration histories for the region. The naming of these places often commemorated visitation events (by surveyors) or reinforced patronage ties. Unofficial toponymy was usually accessed through local folklore, and this was revealed predominantly through oral history interviews and local historical memoirs which often revealed the only evidence of the meaning of these place names. Knowledge of many place names was often restricted to individual thematic groups within the maritime community.

C) Archaeological Data

The limitations expressed by historical records and folklore/oral traditions provided a boundary at which archaeological research could provide further insights into the nature of maritime activities and landscapes in southern Port Phillip Bay. Archaeological sites have been a traditional data source in most cultural landscape studies, and are well understood.

I) Consideration of the Potential Range of Maritime Sites

(a) General Overview

(i) Maritime Archaeological Sites

The archaeological record is often over-represented by large official, administrative or mercantile themes (e.g. defence, quarantine, navigation and harbour services, and tourism) which have generated often substantial and extensive original structures and networks of sites during their period of use. Many less well historically documented themes, particularly extractive industries (such as fishing), tend to evidence leaner archaeological records, either because they are historically less well represented or undocumented, they are less attractive targets for archaeological research, or because they inherently produce minimal or less durable archaeological records compared to other maritime themes, and as such are sometimes archaeologically unknown. However, if archaeological characterisations of these sites could be developed, they offer potentially rich data resources for often under-investigated and historically invisible industries.

Similarly, shipwreck sites produce extensive archaeological signatures. These types of sites are often the popular foci of archaeological research, which has further biased the recorded archaeological resource towards those areas high profile features. Ships do not operate in isolation, but connect to the land via piers, jetties, wharves and docks. Many thematic maritime activities exist in any coastal area including health/quarantine, customs, pilotage and navigation services, defence networks, extractive industries and tourism facilities. All these industries have relied on the construction of maritime infrastructure to service/facilitate their activities. For regional maritime archaeological studies to take place, the full breadth of maritime sites must be expanded to include all archaeological signatures of maritime activities, and must include seemingly mundane sites such as training walls (McCarthy 1999), ferry crossings and groynes etc.

Although some attempts have been undertaken to document historic maritime infrastructure sites, this field remains largely unexplored in an Australian context outside of studies of piers, jetties and wharves, and some extractive industry sites. A positive recent trend to adopt a more holistic regional approach to maritime archaeological research has begun to highlight the scope of alternative types of maritime sites (e.g. Wolfe 1991, 1994; Kenderdine and Jeffery 1992; Kenderdine 1994, 1995a, 1995b; Duncan 1994, 2000, 2003a 2003b, 2004a 2004b; Cummings et al 1995; Barnard 2000; Nutley 2003). Advances in this direction offer opportunities to further develop the scope of the field. A greater consideration the resources consulted is given in Appendix A-4. Despite these studies, no comprehensive list of possible maritime sites had previously been generated within Australia, and it was therefore necessary to predict the range of possible site types that might occur in the study area prior to fieldwork investigation. Appendix A-5 highlights the range of potential maritime archaeological site types that have been gleaned from a range of international and Australian studies of individual maritime infrastructure sites, and from ethnographic accounts of similar maritime communities worldwide which might be encountered in Australian nineteenth century maritime landscapes. Furthermore, the archaeological signatures of many of these types of sites are currently not characterised or even recognised as archaeological sites.

It was therefore clear that new types of maritime archaeological sites needed to be investigated to truly appreciate the diverse scope of maritime activities that were undertaken in the study area. Exploration of these types of sites therefore offered the potential to explore new aspects of maritime landscapes, but also presented challenges as many these types of sites had not been previously documented, and therefore the archaeological characterisations were not well understood (if at all). A glossary of terms which includes definitions of maritime infrastructure site types is included at the end of this thesis.

(ii) Historic Buildings and Places

Heritage agencies often record and maintain official inventories of known archaeological sites. In an Australian context these sites are located predominantly in terrestrial locations, although there is a current worldwide trend to record features located in the intertidal zones or underwater. The depth of detail contained in these data sets varies from comprehensive archaeological records of excavation and surveys, brief descriptions and history, photographs, sketches, or often simply a geographical location. However, archaeological sites are often linked to or associated with extant historic buildings or places, and therefore these features are also significant components of landscape studies. Heritage Registers of historically significant structures are often found at International, National, State, Regional and Local level government agencies (i.e. Councils).

(iii) Local Site Knowledge

Archaeological site information can be garnered through systematic field surveys conducted by researchers. These investigations specifically investigate newly identified sites or search for potential sites identified through historical and/or ethnographic information, the results of which can provide systematic and methodically verified archaeological data sets. However, the extent of research driven data that can be collected is often limited by time and budgetary constraints, and this is especially true for underwater sites.

The location of other previously unrecorded archaeological sites may be known by community sources such as individuals, local museums (and their members) or other local organisations. Many researchers have recognised the important role that divers, fishermen and other mariners play in the recognition of underwater archaeological sites, due to their knowledge of the underwater landscape through direct engagement or finds in nets (Maarleveld 1997:5; Westerdahl 1999:100). Although problems with non-systematic collection bias are inherent in these collections, Massagrande (1995) has shown that even randomly collected survey data (by non-professionals) can be utilised to examine regional patterning of sites, if the nature of the bias and selective acquisition of the collectors is recognised. These sources offer potential independent archaeological data sets that may represent vast periods of personal experience, which far exceed the capacity of individual researchers to record alone, and may be derived from remote areas or regions never previously unexplored by archaeologists. They therefore represent significant alternative resources of archaeological data.

(b) Local Archaeological Data Sources

Many archaeological data sets for the study area were available through a number of different sources. As the reliability of the data varied between data sets, the source of the different types of archaeological information should first be considered.

(i) Official Existing Archaeological /Heritage Databases

Several large bodies of archaeological data already existed for this area. Governmentally controlled data sets such as the Register of the National Estate (Environment Australia), The Register of the National Trust (Victoria), The Victorian Heritage Inventory and Register, and Local (Council) Heritage overlay were extensively consulted regarding existing heritage listed sites (both terrestrial sites and shipwrecks), along with their extensive collection of historical records pertaining to Victorian maritime industries. As shipwrecks sites were already well understood archaeologically, further investigation of these sites was not required. However, little or no investigation of other types of maritime sites had been undertaken in the area (with the exception of a number of maritime infrastructure sites recorded by Heritage Victoria).

The expected archaeological documentation of the study area proved to be disappointing. Despite the implementation of several previous local heritage and archaeological studies (Allom Lovell 1982, 1984; Weaver 1996; Long 1996; Austral Archaeology and Coroneos 1997; Anderson and Cladow 2000; Weaver 2000; Myers 2002), only eleven coastal archaeological sites and eleven registered sites were listed on the VHI and VHR respectively. Aboriginal Affairs Victoria also listed a number of Indigenous sites in this area, but these were not examined as part of this study. Forty six located shipwreck sites were documented by the Heritage Victoria Shipwreck Register, and fifty two others were historically known to exist in the area. At this time no overarching thematic study of maritime archaeological sites other than shipwrecks had been undertaken (a later state-wide study was undertaken by Barnard and Duncan 2003; Duncan 2003a, 2003b, 2004a, 2004b), despite the known presence by local divers of several informally identified strandings, beacon and lightship sites, ammunition dumps, and anchorages which had never been formally inspected (Love 2006; [PF]). From examination of the above sources, it was clear that further extensive archaeological documentation of the study area was required, and that some types of sites were archaeologically underrepresented by the current databases and research. It was clear that further researcher derived archaeological data was required to supplement the sources outlined above.

(ii) Local Knowledge of Archaeological Sites

Initial inquiries indicated that many Queenscliff residents knew of previously unrecorded archaeological sites in the terrestrial, littoral and underwater zones, and these locations were often revealed during oral history interviews. Two types of local knowledge of archaeological sites were demonstrated for the study area.

(One) Traditional Local Knowledge

A number of sites were identified through oral history interviews with local residents, some of whom demonstrated a traditional knowledge of the location of archaeological sites based on extensive familial/occupational ties to the region. Although several informants had personal experience of these archaeological sites, many knew of their existence from their associations with traditional practices in those areas. The veracity of these observations proved to be remarkably accurate, and archaeological remains were almost always discovered at the locations indicated.

(Two) Avocational Archaeologists, Divers and Bottle Collectors

Various commercial, archaeological, scientific and avocational divers were consulted to gain some understanding of the extent of potential underwater archaeological resource of Port Phillip Bay. Most of these divers had developed a personal knowledge of the Bay's underwater archaeological sites through many years of diving experience whilst involved in archaeological, marine science or port maintenance fieldwork.

Many divers had for many years been or were currently involved in artefact collecting activities within The Bay for many years, hence their detailed knowledge of the sites. In cases where interviewees were still involved in artefact collecting, this presented an ethical dilemma for the author, as this was antithetical to the archaeological discipline, and also had legal implications under heritage legislation. Further considerations included the non-archaeological provenance of the artefacts, and sometimes inadequate documentation and/or conservation of artefacts. After much deliberation these sources/informants were included in the study for the following reasons:

- Many informants indicated that some sites had already been lost due to over-collecting, and therefore the recollections and collections of the divers represented the only surviving record of the sites;

- Some divers demonstrated a detailed knowledge of the underwater environment and regional provenance of their artefact collections;
- The collective experience of the divers consulted added up to over 300 years of accumulative underwater exploration, which could not possibly be attempted during the time frame of this project; and
- The divers consulted were known to be reliable sources either through the author's previous experience, and/or by their association with previous scientific diving activities.

Given these considerations, a number of strict guidelines were introduced to adhere to archaeological ethics. Legal advice was sought from Heritage Victoria (the State Heritage Agency) regarding the legal implications of the previous removal of artefacts from shipwrecks or the seabed (particularly if excavated), and the associated obligations for the author (as a researcher) and any project participants (either from interviews or fieldwork). All participants in the project were advised of these legal implications and asked to sign a memorandum of understanding (Appendix A-6) prior to any participation, which included acknowledgement that no artefacts would be collected during fieldwork, and the author could be legally directed to surrender any information regarding illegal activities. The author also explained the outcomes of the project to each participant, and reiterated that this research did not actively support the practice of bottle collecting.

A number of divers were identified who demonstrated an extensive personal knowledge of sites in southern Port Phillip Bay since the inception of scuba diving into the area in the 1960s. Peter Ferrier, Don Love and Carl Paolini all demonstrated a pervasive knowledge based on over 120 years accumulated diving experience. In particular, Ferrier demonstrated a remarkable knowledge of the underwater landscape, and could geographically locate or identify numerous archaeological sites and their associated submerged topographic surrounds. On many occasions he was able to identify areas where the author had been diving simply from descriptions of underwater sand dunes, seagrass distributions or other seabed matrices, and subsequently guide later inspections to previously unlocated sites, based on his underwater directions. Given that this extensive understanding was accrued through actual physical exploration (via diving) in only one generation, it is also possible that in some cases detailed knowledge of the underwater environment (Ferrier's "underwater landscape" - see Parker 2001) also reflects the inherited ancestral knowledge accumulated by generations of family fishermen

A further problem raised was the issue of bias in divers' collection habits, as this could inadvertently skew the observations of the types of artefacts scatters. As the two main collectors in the area, both Love and Ferrier admitted to raising most artefacts that they found

(except iron, which does not survive well underwater), and Ferrier had established an unofficial museum in his house which was used for educating schoolchildren in local history. Ferrier's collection of even broken ceramics was so extensive that he was able to match broken ceramic sherds collected over the space of many years, and he was known affectionately by one diver as "the underwater vacuum cleaner". This demonstrated that although subject to collector bias, the relics raised by these two divers could potentially form a viable sample of the underwater artefact resource for this area.

II) Archaeological Inspection, Survey and Documentation Strategies

(a) Terrestrial and Intertidal Site Documentation and Survey Strategies

After critical review of documentary and oral resources, especially the available site literature, it was clear that further extensive surveys were required to document archaeological sites in the area, particularly those in the littoral zones and on offshore islands. A strategy was adopted to obtain maximum survey coverage in order to also locate sites not previously identified by background historical, archaeological or ethnographic research. As most of the sites identified through historical research were located in the intertidal zone close to shore, field inspections were planned to take advantage of low tides or clear water conditions (flood tides), when many features normally underwater were exposed or could be seen through shallow water. In order to undertake comparative studies of adjacent maritime areas, the original survey strategy proposed a survey of the entire Bellarine Peninsula from Geelong to Pt Lonsdale, a distance of over 80 km. A systematic inspection of sites in this area was undertaken with about 60% coastal foreshore coverage between Geelong and Portarlington, and at Edwards Point, and 95% coverage between Portarlington to Swan Bay (Edwards Point), Queenscliff, Lonsdale Bight, and Pt Lonsdale. Detailed inspections were also undertaken on Mud and Duck Islands, the West side of Swan Island and South Channel Fort (see Maps - Figures 3.1-3.2). No terrestrial inspections were permitted on the eastern side of Swan Island (due to defence and intelligence agency restrictions), and property access restrictions along with environmental hazards (e.g. quicksand, swamps, coastal foreshore subsidence), curtailed the total inspection of the Swan Bay Region and westward of Portarlington. A brief shoreline inspection of the foreshore from Sorrento to Pt Nepean was undertaken by boat to identify potential intertidal sites, which circumvented many of the access restrictions in this area, and terrestrial based inspections were undertaken of the Quarantine Station at Pt Nepean and other sites at Portsea and Sorrento. Boat inspections were also undertaken of the infrastructure sites in the South Channel, along with a terrestrial inspection of the South Channel Fort and Popes Eye Annulus.

However, the range of sites discovered in these areas soon proved to be beyond the scope and time limitations imposed on this study, and therefore the study region was refined to concentrate on coastal and underwater sites of the Bellarine Peninsula from St Leonards to Pt Lonsdale, offshore islands and the extremities of the two main shipping channels. Inspections were not undertaken where terrestrial sites had been previously surveyed, and this was particularly the case at the Pt Nepean defence complexes. Although numerous sites were identified at Pt Nepean and some had been previously documented, and their range proved too extensive to include in this study.

Due to the extraordinary number of sites identified in the study area, most site documentation was limited to photographic recording (using a digital camera), a site sketch using paced measurements of site extremity and dimensions and geographical coordinates taken using a GPS. A sample of various site types was surveyed using baseline-offset methods. A search for an underwater causeway was conducted with four people using a 2 m wide transect lanes and 2 m long fibreglass poles to probe through mud deposits. A transect survey of artefact scatter numbers and types was undertaken at Tip Island.

(b) Underwater Survey Strategies and Recording

Budgetary and time constraints limited the extent of underwater inspections that could be undertaken. Therefore, a representative sample of sites were chosen from each thematic category, and preference given to those where probable geographic location coordinates were available either through local ethnographic sources or through GIS image rectification. Where underwater inspections were conducted, fieldwork was planned to coincide during and after known periods of seasonal gales, as the author's previous experience of this area demonstrated that many submerged sites were subject to extensive scouring after storms. This strategy proved successful, as many sites (some of which had previously been unknown or considered archaeologically barren by local divers), were found to have been exposed after over a metre of overburden deposit was scoured out.

The sample sites were visited using a small boat supplied through local business sponsorship, and with Heritage Victoria. Underwater inspection used a swim-line search with teams of up to five personnel (but generally with two divers) to locate sites, which were then photographed, sketched and surveyed (if substantial remains were encountered and conditions permitted). A baseline- offset or tape and compass survey strategy was adopted, or a site sketch made where local currents restricted access time, and a GPS position was recorded. Extensive tidal currents of up to 12 knots curtailed daily diving operations to two 40 minute periods during slack water.

However, these currents were used to advantage to search for newly identified sites, and allowed faster inspection runs over wider search areas. Furthermore, in order to test that the observations of some new site types were not limited to or characteristically specific to the study area, a number of inspections were also undertaken outside the study area of similar infrastructure types (e.g. anchorages, navigational pile lights, strandings etc) to compare and contrast archaeological signatures at Geelong and Melbourne. Further details of the underwater sites visited are listed in Appendix A-7. Locational information provided by informants proved to be particularly accurate, and archaeological remains were usually located when inspections were undertaken.

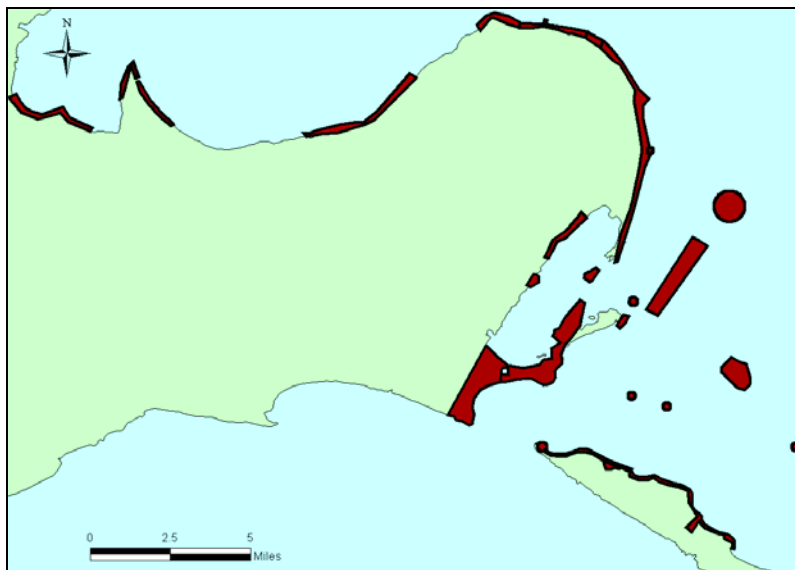


Figure 3. 3: Location of sites inspected.

D) Environmental data

(a) Overview

Environmental and coastline changes may alter the types and locations of various maritime activities, and thus an understanding of these processes (including topography, climate, lithology and the distribution of natural resources) is crucial when considering the maritime cultural landscape (Allen 1995:26; Wickler 1999:3). Cartographic and aerial photographic sources have been used to examine coastline and palaeo-environmental change (Amore et al. 2002; Howitt-Marshall 2003).

There are several problems associated with the use of environmental, geographical and geological records, as they essentially represent idealised or generalised representations of the world that often ignore direct cultural presences. The scale of these sources may often obscure

the human presence, but may be the catalysts for examinations of the courses of landscape change (see Spriggs 1986, 1997); or socio-political influences may have deliberately masked any detrimental changes for any number of cultural or social reasons. Conversely, these distinctions may not be recognised by landscape users. However, if these prejudices are adequately considered, environmental data can be used as indirect indicators of cultural activities through their resultant dynamic changes.

(b) Local Environmental Sources

As previously illustrated above, environmental information was forthcoming in all the data sources outlined above. In particular, environmental sources accessed for this study included bathymetric and topographic plans, oceanic conditions, coastal geomorphology and prevailing weather patterns. Environmental data was accessed through historic meteorological records (Government Astronomer 1872-1906), and official sailing directions (the Australia Directory: 1830-1919 - see HOA 1830, 1913, 1918; Burdwood 1855; Yule 1868, 1876; 1884; 1897; PHB 1959), marine science studies (Land Conservation Council 1993), environmental strategies (Fisher Stewart 1997), geological surveys and oral histories.

4) Methodological Approaches: Data Manipulation

A) Thematic Maritime Studies

Several studies have recognised the importance of the role of thematic workplace occupations in determining a region's character and the social relationships of its inhabitants (e.g. Evans 1973:23; Edmonds et al. 1995:55-60; Duncan 2000). People in similar professions tend to experience landscape comparably, as they occupy, utilise and perceive their region in similar ways, based on their shared workplace practices, social circles and status. The adoption of a thematic approach initially based upon maritime occupations and industries served as an entry point to investigate the diversity and multivalency of Australian colonial landscapes of the nineteenth and twentieth centuries. Some of the readily identifiable schemes included defence, pilotage, fishing, immigration, customs, extractive trades and associated transport, but these were expanded as more maritime occupations and practices were identified (see section below).

However, the use of these themes to define maritime factions did not preclude an individuals/groups membership of to more than one category, as by definition there are no hard boundaries between the landscapes of each thematic group. As different social groups constantly interact, their boundaries are therefore mutable, and as such they may also be

members of other factions who produce disparate archaeological signatures and landscapes. It must be recognised that these thematic groups are analytical units only that have been used to access individual/group aspects of regional landscapes. If we take a holistic approach, then one thematic data set on its own will only provide a partial view of the totality of regional landscapes that exist for any area.

Many of the occupational maritime themes mentioned above were identified by the local community themselves as distinct collective cultural groups within the township, and therefore actually reflected the reality of the social structure of the community. As the study progressed, wherever new themes were identified that cross-cut the boundaries of others, they provided new analytical units for landscape analysis.

B) Ethno-archaeological Approaches

I) Identification of Potential Types of Behaviours and Archaeological Sites From Analogous Cultures/Maritime Themes Elsewhere

In order to explore the complexity of maritime themes in the area, it was first necessary to explore the range of what types of activities could have taken place in the study area. However as previously demonstrated, the scope of maritime activities has to date has not been fully explored in this country. Ethno-archaeological comparison therefore provided a mechanism for identifying the potential scope of maritime activities within the study region.

(a) Overview

The potential of ethnographic and anthropological studies of analogous cultures for understanding archaeological sites and cultural relations has been recognised by many researchers (e.g. Gould 1980; Gould and Yellen 1987; Binford 1988). Although the archaeological, ethnographic/documentary and anthropological are parallel data sets, they are also act as independent sources and thus corroborate or challenge each other to provide a holistic and diversified notion of past cultural traits. This approach enables new understandings of the site formation processes and behavioural practices that have produced archaeological places (and vice versa), thus providing linkages to their former systemic contexts (Binford 1987 as cited in Gibbs 1995:26). The pitfalls of this technique are already well understood (see Dark 1995:60), and therefore if sympathetic analysis of similar time periods and spatially comparable cultures is undertaken, then it might reasonably be inferred that the behaviour that were associated with an analogous range of maritime activities in one area possibly were also undertaken other similar cultures elsewhere. The adoption of an ethno-archaeological approach

allows cultural landscape research to link observed behaviour to archaeological sites, and this is especially significant when applied to other areas (of similar time depth and/or culture) where any of the above data sources are not available or are fragmentary, and where previous cultural practices may only be expressed archaeologically in those regions.

For the purposes of this study, three key facets of associated with ethno-archaeology are employed. These were:

- The identification of new signature archaeological signatures based on behavioural observations;
- A better understanding site formation processes based on observations of cultural practices and subsequent material cultural remains;
- Insight into cultural practices and activities based on archaeological sites and site formation processes.

The adoption of an ethno-archaeological approach has the potential to identify new types of archaeological sites, both above and below water that have not previously been investigated in great detail, which also addresses the need to widen the scope of current maritime archaeological research. The categorisation of potential new archaeological places also provides new opportunities to identify cultural traits and behaviour that have hitherto been unrecognised in other areas, and which may be invisible in the documentary record.

(b) Identification of Analogous Maritime Cultures and Sites Worldwide

Problems were experienced in the scoping phase of the study, as few (if any) suitable analogous regional studies of maritime communities of this scale and diversity had been undertaken that fell within the same historical time period/culture within Australia (with the exceptions of Chamberlain 1988; Wright 1992). The consideration of alternative overseas sources was problematic from a spatial stance due to the large distances involved between cultures. However, this challenge was solved by first identifying the source culture of many of the inhabitants of Queenscliff, who proved to have predominantly originated from Britain, but also from mainland Europe and Asia.

Studies of similar maritime communities, particularly along the southern coast of Britain and other former British colonies were consulted to identify the diverse range of possible transported maritime activities undertaken in their ancestral lands. Many international ethnohistorical, historical and archaeological studies, historic photographic surveys and other observations of maritime communities and coastal life in England and America were examined

from across a broad range of maritime themes for the same time period as the study area (Thoreau 1865; Evans 1966; Hedges 1989; Stilgoe 1994; Lewis and Mason 1997; McErlan et al. 1998; Aberg and Lewis). Specific account and studies of thematic maritime activities such as fishing communities; the customs, lifeboat, lighthouse and pilots services and wrecking behaviour (Procter 1873; Procter Brothers 1882; Treanor 1904; Bradlee 1923 Goldsmith Carter 1945; Vivian 1969; Larn and Carter 1973; White 1997; Bathurst 2000; Fox 2001; Smylie 2002) gave insights into the practices, social structuring and possible archaeological deposits of these industries. Furthermore, contemporary historical folk tales were accessed in these studies and Wilson (n.d.) to assess the possible belief systems present in Anglo Saxon Britain.

Although outside the focus realm of Anglo Saxon societies, several studies of indigenous maritime societies also provided indications for the analogous types of specialist fishing and nautical knowledge that might be found in the study area. These indigenous studies included documentation of Pacific Island fishing communities (Iversen et al. 1990; Johannes 1992; Hviding 1996), and long distance voyaging (Gladwin 1970; Finney 1976; Turnbull 1991; Irwin 1992; Lewis 1994; Thomas 1997). These studies indicated that maritime communities would possess various levels of specialist knowledge regarding environmental and climatic conditions; resource availability, location and procurement methods; navigation; and ancestral history, which in some cases would only be evident in oral history traditions (see Duncan 2000). Previous ethnohistorical research of some maritime industries provided further opportunities for the identification of how and where the landscape was utilised by different historical groups (Hester et al. 1997:52), which was used for formulating site survey strategies, as it provided a basis for linking past behaviour and perceptions of landscape to current archaeological deposits.

Observations from these analogous cultures provided an understanding of not only potential behaviours associated with similar maritime industries in the study area, but also illustrated potential archaeological site types that might be associated with these activities. Conversely, similar site types found in the study region could inform of the existence of comparable behavioural practices. These sources formed a continual feedback loop to each other, where as new data was discovered (both in the study area or elsewhere) it added to previous observations derived from all the other data sets.

C) Comparison of Disparate Data Sources: GIS As A Data Manipulation Tool

It can be seen from the sources above that there are a multiplicity of data sets and methodologies available from many highly dissimilar data sources for the studying cultural landscapes, which presented a conundrum of how to compare and contrast the data sets for

different thematic groups. However, certain groups were differentially defined or covered by the available data sets. The official documentary and archaeological records provide good coverage of governmental and other official services, but are usually weak for unofficial sources. This disparity between the availability of data from similar sources for different community groups may at first be considered problematic, as it appears to curtail their joint analysis due to dissimilar representation. However, the strength of a cultural landscapes approach lies in that it uses different data sets in same kind of analytical framework, to enable comparison of diverse landscapes. Therefore different aspects of the world are accessed through different kinds of records.

The problem then remains as to how best represent and compare these disparate data sets in a way that would overcome the inherent vague methodological nature of cultural landscapes investigation, without becoming too restrictive in the analysis of the community, and hence lose the flexibility of the ambiguous approach that underlies cultural landscapes investigation? The key to this dilemma lies in the combined use of thematic categorisation, ethno-archaeological analysis and new software for geographical data interpretation (GIS).

I) Overview

GIS technology links spatial representations of reality (i.e. maps) with related information stored in a database tables. It provides a powerful medium for spatial and temporal analysis of the geographical distributions of features. The main functionality of GIS systems for cultural landscapes studies lies in its ability to compare and contrast multiple layers of different types of data spatially, through the overlaying of individual layers of information that are represented spatially. These systems have been used in the past to enable large volumes of archaeological data to be managed and locational details examined at multiple scales using different themes within an associated database (e.g. Allen et al, 1990; Lock and Stančič, 1995; Gillings et al, 1999), and has enabled extraction and analysis of potential archaeological patterns encoded into the landscape (e.g. Massagrande 1995; Johnston and Witter 1996; Murphy 1996; Lock et al. 1999). GIS has also been extensively utilised in previous archaeological studies to document historical site utilisation changes over time using time slice analysis (Hastenstab and Resnick 1990; Johnson 1997, 1998, 2003; Mather and Watts 1998; Plöger 1998; Godden Mackay Logan Heritage Consultants 2000; Stewart 2001), and the prediction of archaeological site locations based on economic, cultural or environmental determinants (e.g. Hastenstab and Resnic 1990; Wescott and Kuiper 2000). Of note, some studies (Boyd et al. 1995; Boyd et al. 1996a, 1996b; Boyd and Pathirana n.d.; Maarleveld 2003:123) have suggested that changing historic coastal landscapes and/or the subsequent access restrictions to maritime traffic should be examined to

determine the potential location of underwater archaeological sites. Other studies (Duncan 2000, 2004c; Duncan and Puotinen 2002) have demonstrated that spatial patterning of archaeological sites was often predictable, as (particularly in a maritime context) those involved in various industries often utilised spatially distinct areas of the landscape, or used the same areas in different ways to other mariners. The effectiveness of using GIS to map multivalent Indigenous cultural landscapes has also been succinctly demonstrated by Monaghan (2003, 2005), who used an ethno-archaeological approach to pinpoint appropriate seasonal occupation areas based on environmental factors and local knowledge networks gleaned from oral histories, documentary records, ethnography and satellite imagery.

II) Local Methodological Applications of GIS For Landscape Analysis

The past proven success of the application of GIS to archaeological research presented exciting new avenues for the representation of data in this study. The ability of GIS to overlay and analyse multiple layers of data at many different scales meshes readily with the concept of multivalent landscapes that exist on many different levels (both spatially and temporally), and therefore facilitates examination of the multiplicity of landscape almost instantaneously at many different scales and locations. GIS systems also do not impose boundaries between different environmental mediums (unless programmed to do so), but offer the potential to examine these areas seamlessly. Furthermore, the ability to analyse data changes over time facilitates investigation of dynamic and continuing landscape change at many different scales. Perhaps the greatest utility of GIS lies in its ability to allow the comparison of often vastly different types of data, and thus effectively demonstrate the overlap and differences between different landscape users worlds. Therefore, GIS presented an ideal data manipulation tool for analysis of disparate data sources because of its strong structural similarities to the cultural landscapes paradigm itself.

(a) Input of Data Sources

(i) Oral Histories/ Local Traditional Knowledge

Many hundreds of GIS data sets were created before any cultural landscapes analysis could begin in this study. Oral history information outlined on hydrographic charts during interviews (as described above) was converted into GIS coverages by digitising/transcribing the recorded material onto a geo-referenced version of the same chart. Observations by the informant were stored in a database table that linked to that information layer (coverage), which enabled features and cultural areas to be viewed and queried according to the standardised coded database fields (the structure of the database fields is discussed in the section below). A new

coverage was produced for each informant to enable easier interpretation of interview results, which often became obscured if incorporated into a single coverage.

(b) Using Historic Documentary Records For Site Relocation

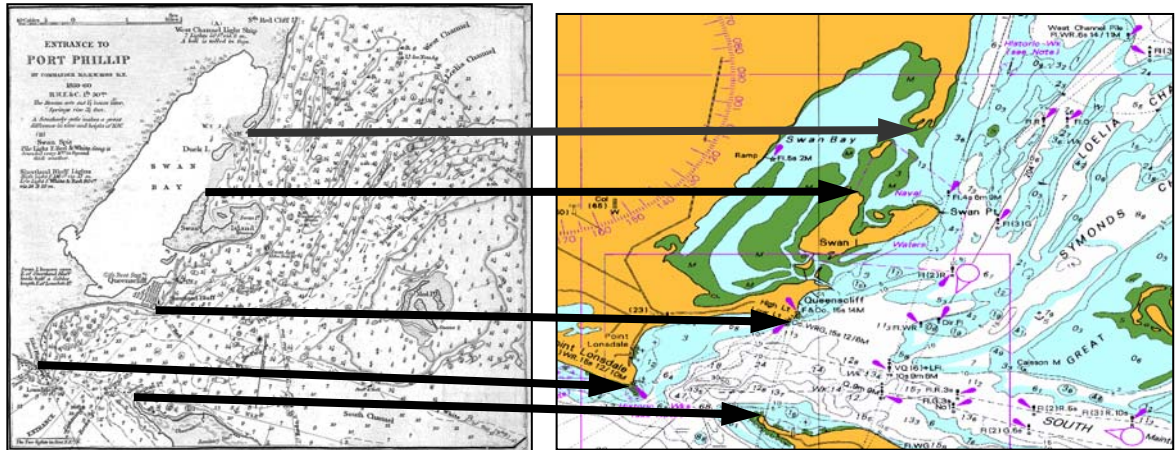


Figure 3.4: Example of the geo-referencing process, where historic charts (left) are assigned modern geographical coordinates from Hydrographic GIS databases (right). (Note: The ground points used here are for illustrative purposes only, as some are not permanent points).

An innovative GIS methodology that utilised some similar aspects of Mather and Watts' (1998) methodology was independently developed by the author as the strategy for predictive analysis of archaeological sites in the study region. Historical cartographic and aerial image sources were overlaid onto modern primary map coverages using a common GIS process called geo-referencing, which then enabled modern geographical coordinate system to be applied to the historic sources. The resultant GIS image coverages were digitised (electronically traced) and relevant historical information entered into an attached database. This process enabled the actual geographical coordinates for former historical feature locations (such as maritime infrastructure sites and environmental coastlines) to be extracted from the GIS. The positions of these historic sites were then relocated with a GPS (satellite navigation) unit and ground-truthed to determine the existence of any archaeological sites at these locations. Scores of primary cartographic data sources (as in section outlined above) which evidenced various maritime thematic infrastructure locations were used in this process, enabling the extraction of their current geographical positions to aid in fieldwork inspection planning and potential site identification. This process also worked in reverse, where archaeological sites were identified by their locational correspondence to sites known from historic maps (Duncan 2002). The technical aspects, accuracy issues and problems encountered with this process are discussed further Appendix A-8.

(c) Archaeological Site Plotting

This technique mentioned above proved to be remarkably effective for relocating archaeological sites, both above and below water, and was subsequently successfully used by the author in several other archaeological projects around Victoria (Duncan 2002, 2003a, 2003b, 2004a, 2004b). Although this method has been used by other archaeological/historical studies to identify former historic use of a planned excavation area, or to document the accumulated history of a given region (e.g. Johnson 2003), it is possibly the first time (to the author's knowledge) that it has been used to physically identify and locate potential underwater archaeological sites.

A modern aerial GIS coverage was also used to identify potential archaeological features to be investigated, and several visible features (both under and above water) from this coverage proved upon inspection to be archaeological sites. It also enabled the sites identified from geo-referenced historic maps and charts to be overlaid over the aerial imagery, allowing better interpretation of relocated ground features.

GPS coordinates for all archaeological sites were entered into a GIS database and linked to an associated database table. The location of these sites was interpreted in conjunction with the GIS aerial image coverage mentioned above to produce the site plans. Selected digital photographic images were hot-linked to the GIS coverage to allow visual analysis of the site within the GIS format. The association of seemingly unrelated or inconsequential archaeological sites to other maritime infrastructure and activities was investigated visually using GIS to determine any spatial relationships, and investigated further where necessary using the techniques described below.

(d) Time Slice Analysis/ Map Production

This study employed the method of time slice analysis, where the differences in a sequence of geo-referenced historic maps and charts were examined to analyse changes in channel and shore-line geomorphology of Queenscliff and Port Phillip Bay to identify the effects on maritime coastal use and the probable location of maritime archaeological sites. This process further aided with the exploration of the effects of changing environmental conditions on maritime activities.

GIS also proved to be an effective medium for the production of cultural landscape plans. Miles have been used as the standard unit when producing maps for this study, as this was the common unit used by informants when describing distances, the only exception being when

archaeological sites have been surveyed (when metre measurements were adopted for larger scale sites).

(e) Database Structure: Thematic Subfields

Having collected and collated the information, a thematic approach to investigation of maritime industries was adopted in this study to further analyse the data sets and archaeological site patterning. The range of potential landscape features in the study area proved to be substantial, and in order to manage the data, a GIS database (Arcview 3.2 and later ARCGIS 9) was created to track site localities as they arose from historical, ethnographic and oral history sources. This aided the identification of the actual geographical location of former historical feature locations.

GIS offered the potential to compare and contrast numerous types of disparate data sources. To facilitate this approach, a standard database with common fields (that were applied to all GIS data layers) was designed for each individual data set. These database fields included artefact and landscape feature type, date information etc (the final design of the data GIS data fields is shown below Appendix A-8), but most importantly a series of fields were assigned which noted every feature's associations with individual maritime themes. These fields facilitated analysis of individual and community landscapes on a number of levels. Firstly, the location physical and cognitive areas of significance could be mapped for each individual to demonstrate their own personal cultural landscapes. This enabled each personal GIS dataset to be overlaid to compare and contrast the concordances and ambiguities expressed between individual landscapes of members of the same thematic community, which might be evident by spatial clustering and/or dispersal of significant features or changes in their locations over time. Similar observations could also be investigated between different maritime sub-groups, and particularly in regard to how the activities of one group might enhance or inhibit the development of the landscapes of others.

A problem often experienced in other traditional thematic archaeological studies, is that by necessity some sites which are used by multiple users groups have commonly been allocated relevance to one theme only because of structural limitations within the recording system. It was at this point that the use of themes became a key element for the examination of different landscapes in this study, as the thematic fields could be used to indicate an individual's association with a specific sub-group in the community. The GIS database allowed individual landscapes features to be encoded and viewed with more than one associated thematic value (through the assignment of separate fields for individual user groups, informants or other data

sources), which thus enabled easier visual analysis of site patterning using different combinations of themes or data source sets.

The thematic fields also allowed landscape features to be assigned multiple associations to various themes, which then elucidated multiplicity of values that might be attached to them by different maritime groups. Furthermore, this aspect also applied to personal landscape participants, who might have cross-cutting ties across different thematic groups. These facets highlighted and facilitated investigative access to the multivalent considerations of landscape at and across various levels. This was of particular importance to this study, as many maritime landscape themes and sites overlapped and were interlinked, and were often valued by different maritime sub-groups for highly diverse reasons.

The use of a GIS database system therefore enabled large volumes of disparate data to be managed and the location to be viewed at different scales using disparate themes encoded within an associated database, which further allowed the extraction and analysis of potential patterns encoded into the landscape. The structure of the database fields represents the culmination of many modified attempts to successfully organise the data to analyse landscape features in many different ways. However, the setup of the database is such that the design can be modified to incorporate additional fields as new sources of data and thematic activities are identified. Further more complicated analysis of site patterning is possible using GIS interpretation, but this was not attempted in this study due to time restrictions.

(f) Ethno-archaeological analysis using GIS

Once the database was established, landscape features from multiple data sources could be overlaid for comparison, which provided significant insights into landscape practices and perceptions. Using this method, it was possible to overlay observations of the types of practices, material culture and perceptive values that were associated with any given theme (that had been identified through documentary and folklore sources), and then compare these with the archaeological record of what had been relocated in those areas. The subsequent ethno-archaeological observations often provided significant insights into previously uncharacterised/unrecognised cultural practices and their corresponding archaeological signatures. This process also worked in reverse, where archaeological sites informed of undocumented practices linked to maritime groups known to use those areas.

Furthermore, the mapping of cognitive perceptions associated with identified significant sites was also used to ethno-archaeologically assign social meaning to relict landscapes and features.

This was particularly important when identifying tangible remains that demonstrated the complex sociological, political and cultural ideologies that drove landscape development at many different levels for each theme and at a community level. It was only once the structuring agents for each theme were identified, that comparative analysis of the shared community landscape(s) could take place, as the underlying ideological, political, economic agendas and physical determinants of landscape structure for each theme were understood, and the interactive effects of each landscape could be understood in relation to the others.

These results were examined collectively to identify the trends and data sets that might characterise and strengthen/inhibit further investigation thematic landscapes. The differences between the characterisations of each thematic landscape were further investigated to try to identify the problems associated with its access.

5) Discussion

It has been shown that the investigation of cultural landscapes relies on many highly diverse and disparate data sources, whose information is often fragmentary or selective by nature. The information contained in these data sets is often biased towards the viewpoint of the recorder, or notes only particular types of information. Furthermore, the availability of these data sets varies widely and is often dependent on the research focus of previous studies. However, the prejudicial nature of these data sources can be used to advantage to extract aspects of landscape that have previously not been considered. This is particularly the case where, what in the past was considered bias, was used to extract alternative cognitive perceptions or values of the observer. The strength of the proposed methodological cultural landscapes approach has been shown to lie in the combination of these often very disparate data sets which have continual overlap. As such, particular attention was also given in forthcoming analyses to what types of data informed of different themes, which was central for later assessment of the effectiveness of the methodology. The ambiguity of data sources and multivalency of landscapes had further connotations for the proposed investigation of cultural landscapes, as will be seen in the following chapters with particular reference to the case study area of Queenscliff.

It can be seen from the discussion above that in any situation where thematic landscapes are studied, the effectiveness of the study will be dependent on the level of informative resources that are available. The multivalent nature of landscape studies will always preclude complete analysis of every possible landscape, as all are unique, diverse and/or boundless. Therefore the scope of this study was refined to a limited number of thematic landscapes that would best

demonstrate the differential application of the methodology. This was achieved through utilisation of a variety of diverse permutations of data sources of what might be considered the most influential maritime activities in this district.

This approach first required that a broad consideration of the study area be undertaken to check the availability of resources for individual themes, and the over-arching context of each activity within the townships framework. The next chapter will present a background synthesis of maritime activities in the town of Queenscliff and southern Port Phillip Bay, which will aid in the identification of significant themes that will be addressed in further detail in later chapters to demonstrate the practical application of the proposed methodology in a real world scenario.

...being so close to the Bay, and so close to Pts Lonsdale and Nepean with their fangs ready to tear to pieces any unfortunate vessel that came within their reach, it was only natural that the most exciting incidents in Queenscliff life have always been connected with the sea. (Dod 1931:66)

Chapter Four: Queenscliffe as Study Area

1) Introduction

The township of Queenscliff lies at the confluence of several major shipping routes of local, national and international significance. It is the home for many major maritime extractive and service industries, and has played a pivotal role in the development of the ports of Melbourne and Geelong as one of the earliest maritime service centres in the state. The hazardous nature of the region has also been a central factor in the growth of the township, and has led to the proliferation of many maritime safety services.

Queenscliff presents an ideal contextual setting in which to examine a range of maritime cultural landscapes using the proposed methodology, and the rich scope of maritime activities in this region offered the level of diversification required to adequately assess the versatility of the new approach. An overview of the historical background of the Queenscliff region is used to introduce the rich fabric of thematic maritime activities present in the study area, which far exceeded the anticipated extent of maritime trades expected at the beginning of the study.

This chapter begins with a traditional overview of the study area, which includes an environmental/ geographical history and historical overview. Although this approach normally divides “natural” from “cultural” landscape components, in this case the distinction between the two elements is used to demonstrate the interconnectedness of the environmental surrounds and boundaries with cultural activities (and vice versa), a theme which will be explored in further depth throughout this thesis. The geography of the “natural” environment will be shown to shape the location and types of activities being undertaken in the region, but it will also be later demonstrated that cultural influences actively shape and reshape the environmental theatre, both physically and cognitively. This style of approach also investigates the relationships between the various social groups contained within those areas, and sets the scene for later more in-depth analyses of specific thematic cultural landscapes.

The evolution of the township will be seen to be heavily reliant on the development of several administrative maritime services that service passing shipping, which, together with the inauguration of many extractive and mercantile industries, subsequently led to the installation of

a vast range of supportive maritime infrastructure. This historical consideration is used to contextualise the setting of several key maritime themes which were seen to be influential in the development of the maritime landscapes of Queenscliff which warrant further consideration for testing the new landscapes methodology.

2) Physical Cultural Landscapes: Environmental History

A) Geomorphology

Port Phillip Bay (locally known as “The Bay”) was formed when the Pleistocene coastal plain and tectonic depression was flooded to form a semi-encapsulated bay over 60 km wide at its extremities (Bird 1964:35). A horseshoe shaped underwater chasm up to 95 m deep straddles the entrance to Port Phillip Bay, and is locally known as The Wall. The area was originally strewn with isolated uncharted pinnacles which often rose to within a few metres of the surface. These pinnacles were usually discovered by vessels striking them, and were often removed by blasting upon discovery in efforts to construct a safe channel through the Heads (Anderson 1997a:7-8).

A series of sand and mud banks form a delta from the former archaic Maribyrnong River mouth beginning approximately 5 km from The Rip and extending in a 5 km radius. The reduction in current velocity (and subsequent deposition of waterborne sediments) associated with tidal changes and channel narrowing at The Rip have produced an extensive sandbank delta. These banks are interspersed with up to six naturally occurring channels, cut by the former river course and tidal influences. The sediment in this area is highly dynamic, and only two channels of sufficient width (the West and South Channels) offer reliable courses for safe navigation; a third (Coles Channel) is navigable only through regular buoyage updates (Bird 1964: 138).

The Pt Lonsdale to Queenscliff shoreline consists of broad shore platforms cut in Pleistocene dunes faced by rugged cliffs. Shallow shelly lagoons lie inland between dune calcarenite ridges. Swan Bay is characterised by a shallow landlocked tidal marine region connecting to Port Phillip, and is partly enclosed by spits and barrier islands, and bordered by extensive salt marsh. Edwards Point is a recurved sand and shingle spit lined with salt marshes, shallow lagoons and fringing sandy recurves, and is a state faunal reserve. Swan Island is characterised by a large mobile sandy foreshore and spit, which is known for its constant deposition and erosion. The Pt Nepean to Observatory Point (Portsea) foreshore is similar to Pt Lonsdale, but also with parallel dune ridges on the inside of the bay and steep rugged cliffs fronted by shore platforms on the

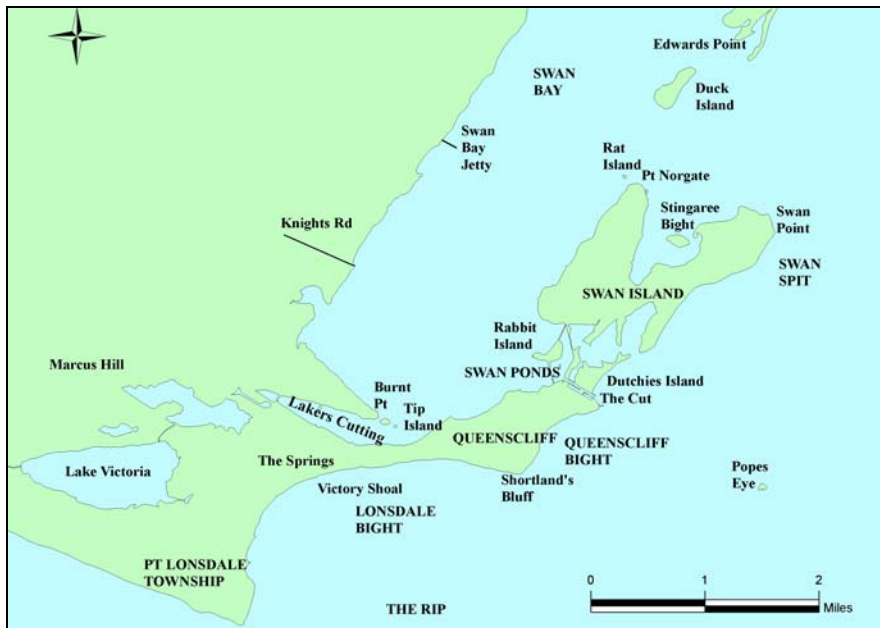


Figure 4. 1: Local places of interest in the Queenscliffe area.



Figure 4. 2: Street map of Queenscliff (After Geelong Advertiser Pty Ltd, 2006: Map 30).

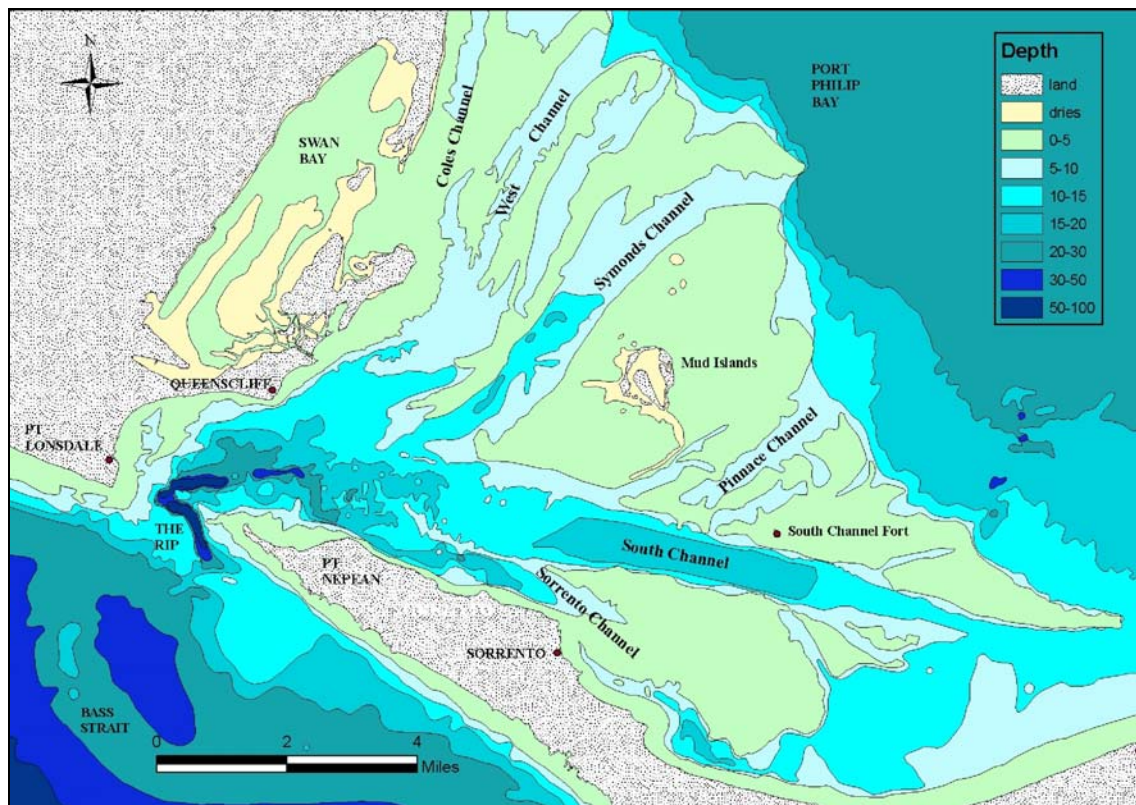


Figure 4.3: Bathymetry and channels of the study area.

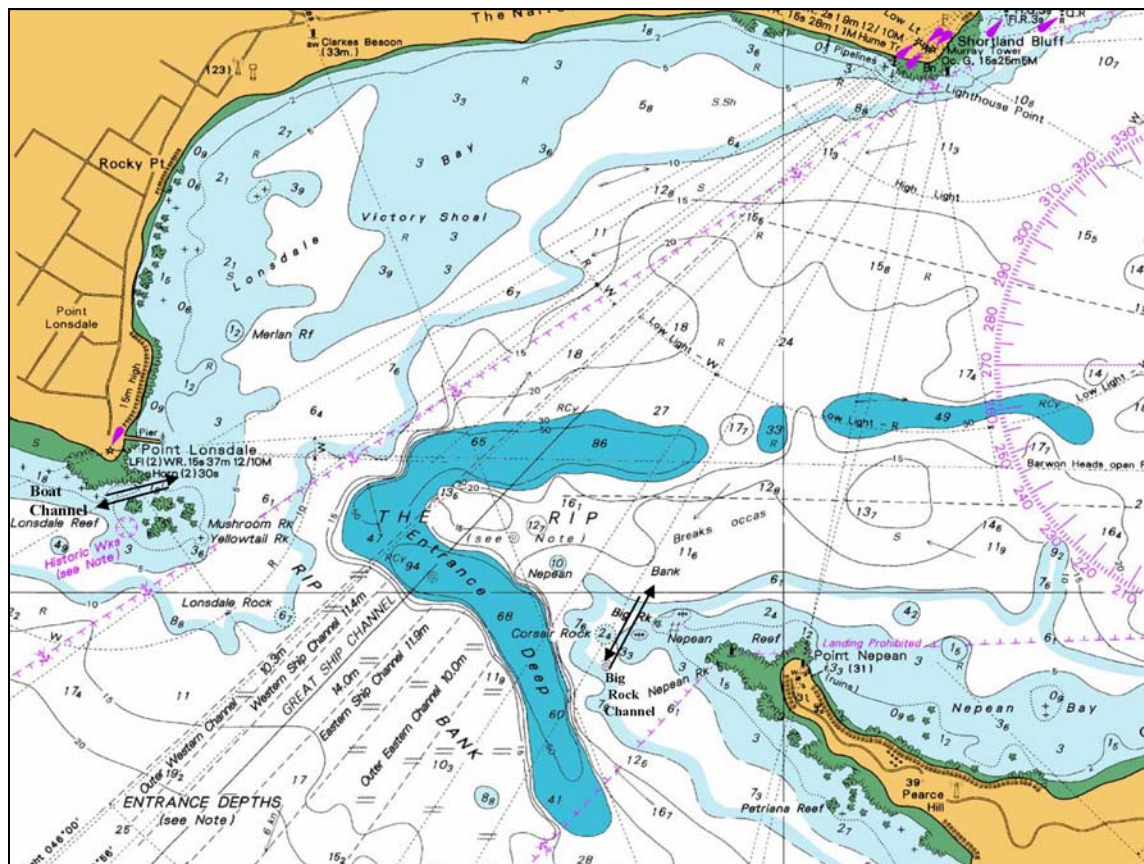


Figure 4.4: Submerged features in The Rip (after AUS Chart 143).

exposed ocean precincts. Located in the centre of the delta banks lies the Mud Islands, which are enclosed low lying sandy and swampy barrier islands around a central lagoon and salt marsh enclave formed by wave action (Bird 1977:52, 56).

B) Tidal Influences, Currents and Effects on Mariners

The Port Phillip Heads area is known for its often unpredictable conditions, and is considered extremely dangerous. The semi-enclosed topography of the Heads entrance constricted the tidal water flow either outside or inside the inlet (dependent on high or low tides), leading to a disparity of water levels of The Bay and ocean outside (Bird 1964:9). The tidal influx is delayed by the narrow entrance, as only a restricted amount of water can flow through the inlet at any one time, a similar situation to bath water at the plug hole (see Figure 4.5). The water levels inside The Bay are therefore alternately higher or lower than the ocean sea level outside, dependent on the nature of the tide. The water flow continues until equilibrium is achieved midway between high and low tides, when currents slow and reverse to produce the period known as “slack water”. However, slack water at The Heads actually occurs midway through the oceanic tidal stream, usually three hours after the tidal change, and this is the opposite of the generally expected rule where slack water occurs concurrent with the change of tide (Anderson 1997a:7).

Furthermore, the water flow through the entrance to Port Phillip Bay is funnelled through a one mile wide entrance, locally known as The Rip, resulting in a severe tidal current of up to 7 knots. Tidal waters are known to hit the edge of The Wall (the edge of the underwater Rip chasm) and are redirected upwards towards the surface and along the wall, resulting in unpredictable eddies and whirlpools, and currents directed towards the shore (Yule 1876:271; Loney 1989a:1). The tidal flow also runs slightly athwart the entrance with great force, which was constricted for at least half of its width by shoal reefs and pinnacles on either side, and added to a confused sea and tidal rip. When sailing vessels attempted to navigate The Rip against a strong ebb tide, the vessels were often swept against the eastern peninsula, especially as the oceanic wind frequently eased off as the tidal water was reached, leaving the vessels unmanageable. The combination of the tides with a shallower approach reef outside the Heads and a very deep chasm inside meant The Rip was often subject to high confused seas, especially in a south west gale (Yule 1876:305). Although ocean swells do not enter Port Phillip due to the narrowness of the entrance, wind generated waves are a constant danger within The Bay (Bird 1964:13, 14).

Mariners arriving at The Rip therefore faced multiple unexpected environmental dangers. Masters unfamiliar with the unique tidal discrepancies often attempted to enter The Rip at high or low tide (the anticipated slack water period), and the strong currents usually swept the vessels towards the shore where they were wrecked. In the founding days of the colony, most vessels were of limited draught, and therefore had adequate clearance to safely navigate through the field of pinnacles in The Rip. However, with the influx of international and other non-local vessels during the Victorian gold rush, many larger deeper drafted ships often struck these submerged rocks, and as vessel losses increased dramatically, The Heads at Port Phillip Bay became notorious as a shipwreck trap.

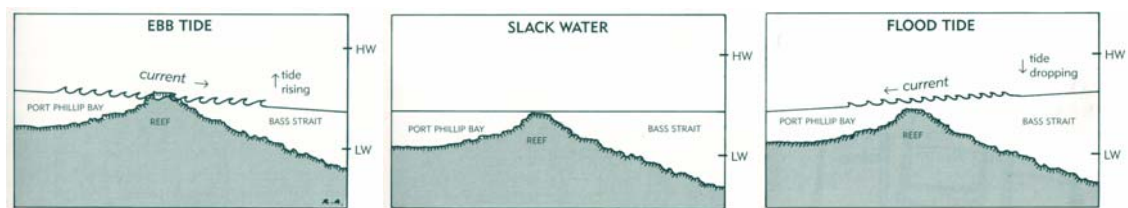


Figure 4. 5: Model of tidal influences at The Rip. HW = High Water, LW = Low Water (After Anderson 1997a: 7).

3) New Maritime Landscapes: European Exploration and Mapping

During an exploratory voyage in a whaleboat in December 1797, Lt George Bass observed a westerly swell at the newly discovered Westernport Bay, indicating the existence of a strait between Van Diemen's Land (Tasmania) and mainland Australia. The discovery was of major strategic and economic significance to Britain, and sparked further exploration by Matthew Flinders and Bass in 1798 that proved the strait's existence. A chart of Bass Strait produced in England later that year was given to Captain Grant of the *Lady Nelson*, which became the first vessel ever to navigate through the strait in 1800, and was followed quickly by two other merchant vessels. In 1801, the *Lady Nelson* was sent to survey the new region as far west as Cape Otway, but was confined to Westernport Bay by gales (where a survey was made) until forced to abandon the venture. Another inspection was undertaken in the same vessel under Acting Lt Murray, who discovered the entrance to a new harbour in January 1802. The ship's master was despatched in a launch to reconnoitre for a channel entrance, and he reported a large harbour inside The Heads. In February 1802, the *Lady Nelson* entered the passage where Murray noted the strong rippling due to the force of the tide (Scurfield and Scurfield 1993:14).

The Bay was initially named Port King after the then Governor of NSW, who later renamed it Port Phillip in honour of the first Governor of Port Jackson. Murray produced two charts of the

area based on partial surveys to give some indication of the size and orientation of the area, and one was published in London in 1803. Around this time (1802), two French vessels, the *Le Naturiste* and *Le Geographe*, were surveying the southern Australian coastline, and after becoming separated in a storm in Bass Strait, the latter under the command of Nicholas Baudin continued mapping west along the Victorian coastline until he met with an expedition run by Flinders in the *Investigator* (who was mapping the south coast) in Encounter Bay, South Australia. Flinders mapped the Victorian and King Island coasts, and eventually entered Port Phillip on April 26th that year. He remained there until early May, and upon his return to Port Jackson (later known as Sydney), he reported the harbour was “capable of receiving and sheltering a larger fleet than ever went to sea” (Scurfield and Scurfield 1993: 15-6). The news of his encounter with Baudin and the subsequent arrival of the two French vessels that year prompted suspicions of French colonisation plans for southern Australia, and eventually led to the establishment of the abortive settlement in Sullivans Bay (Sorrento) in 1803/1804. Lt Robbins and Acting Surveyor Charles Grimes were sent to survey King Island and Port Phillip in late 1802 in the *Cumberland*, and they discovered the River Yarra, the later site of Melbourne. With the arrival of the *HMS Calcutta* in October 1803, Lt Tuckey continued to survey large areas of the Bay (Scurfield and Scurfield 1993:15-6; Coutts 1981).

Many subsequent private explorations of Port Phillip Bay were undertaken by speculative pastoralists from NSW and Tasmania looking for lush grazing lands prior to the official settlement of Victoria. These included John Batman in the *Rebecca* in May 1835, who landed at Indented Head and Corio Bay (Geelong), where he “purchased” rich grazing lands from the local Indigenous people (*Wathaurong*) and was later followed by his brother Henry and surveyor John Wedge. They subsequently used their contact with an escaped convict, William Buckley, to improve their relations with the *Wathaurong* community. John Fawkner arrived in the *Enterprise* in July 1835, where he also landed at Indented Head and explored the west coasts of the Bay and both eventually founded a small settlement at the future site of Melbourne in 1835 (Sutherland 1888a:97-123). The data from Flinders’ and Grimes’ surveys were published in 1814, and were to be the main cartographic references for this area until 1836, when Captain Hobson in the *HMS Rattlesnake* was despatched to assert colonial authority over the new illegal pastoral settlements that had sprung up at the sites of Melbourne and Portland. The *Rattlesnake* extensively surveyed the harbour, channels and anchorages of Port Phillip, including the southern portion of the Bay in 1837 and a semi-sheltered peninsula on the western side (named Shortland’s Bluff after one of the survey crew) was noted for its potential as a pilots station (Scurfield and Scurfield 1993:17-20). The development of Melbourne as a major port from 1836 onwards saw increased shipping traffic through The Heads, and the strategic semi-

sheltered Shortland's Bluff close to the entrance would later be assigned great significance for its potential as a maritime service centre.

4) Genesis of an Early Maritime Centre

A) Development of Government Maritime Services and Town Foundation

The region around Shortland's Bluff was important to the Wathaurong community owing to its proximity to the rich marine resources of Port Phillip and Swan Bay, and was the site of feasts that coincided with seasonal bird and seafood availability (Dod 1931:7, 80). The area was later used as part of a cattle and sheep station from 1845, until the area was surveyed for the township of Queenscliff in 1853 (QS 27/1/1912; Dod 1931:8, 9; Thompson n.d.:1; Fanning 1893). Swan Island was also initially used as a pasture for foaling breeding mares, and it later became a cattle and dairy station (Dod 1931:27).

The Queenscliff region had been the focus for a range of maritime services since at least 1839, when it was realised that reliable pilotage services were required to navigate the hazardous waters of The Rip. The Heads region had already proven dangerous to shipping, and the first of many recorded strandings and shipwrecks occurred in 1838 (PHO 1853 as cited in Love n.d). A pilots station began operation at Shortland's Bluff in 1839, when a local ships master (George Tobin), applied for and was granted a commercial pilots licence. Further mariners also applied originally as independent operators, and four more pilots were appointed over the next two years. By 1841, four pilots and five boatmen occupied tents on the beach in the lee of Shortland's Bluff, until houses were later built for them at the top of the Bluff; and this settlement was to prove the foundation for the subsequent Queenscliff township (Noble 1979:8, 9, 42). In the early years of operation, pilots initially embarked on vessels inside the Rip, but later boarded outside after many wrecks had occurred at or near the Heads. Many changes to pilotage routines took place over the years, and eventually two cruising ships alternated to patrol Bass Strait outside the Bay, with the backup vessel moored in Queenscliff Bight (Fanning 1892a). Pilotage continues to be an integral maritime industry based at Queenscliff to this day.

The increase in wrecks at the Heads highlighted the necessity for a reliable system of navigable aids and reliable charts. In 1841 pilots requested that a disused Melbourne flagstaff be installed at Shortland's Bluff to act as a signal staff for broadcasting tidal movements and communication with incoming vessels (LTGL 41/667). That same year lighthouses were proposed for Shortland's Bluff and Cape Schank (GA 24/4/1841:2; LTGL 41/908), with lead lights proposed for the South and West Channels (LTGL 40/319, 41/532). The first Shortland's

Bluff light and signal keeper positions were hotly contested (LTGL 39/86, 42/17, 42/478, 42/1530, 42/516, 42/2041). When construction of the first lighthouse began in 1842, sandstone was quarried from the base of Shortland's Bluff to build a tower with an attached storeroom and accommodation (Boys 1841; LTGL 42/401, 42/404; Cuzens 1912:1; Raison 1997:2). Although the light was operational by March 1843 (PPG 29/3/1843:2) several shipwrecks still occurred in the area, which led to the construction of an additional lighthouse on the southern side of the bluff as a complementary leading mark through The Rip (Burdwood 1855:121; Raison 1997:5). A network of lights and beacons to guide vessels through Port Phillip were built on Shortland's Bluff, Pt Lonsdale and around (and in) The Bay, and were maintained by the Lighthouse Service, which has continued its presence in the area until the modern day.

Hydrographic surveying continued to document submerged hazards in The Bay, when Cmdr. Stokes (British Admiralty) charted the southern Australian coastline in the *Beagle* in 1842/43. With the increase in gold rush traffic beginning in 1851, further surveys of Port Phillip were undertaken by Capt. Charles Ferguson (Chief Harbour Master) to document the changing marine hazards of The Bay. Cmdr. Ross (Marine Surveyor to the Colony) undertook detailed surveys of Port Phillip in 1858/59, and further surveys were undertaken by Cox (1860-66), Stanley (1872-74), Norgate (1882), and Mason (1896), all of whom noted the shifting channel locations in the Bay (Scurfield and Scurfield 1993:17-20). A Hydrographic Office operated out of Queenscliff until the end of the twentieth century.

From 1903 onwards, the Ports and Harbours Department was also involved in the extensive modification and deepening of The Rip and various channels through dredging and blasting (QS 29/7/1911; Noble 1979:49-50). These operations not only increased the size of vessels that could enter the Bay, but also led to dramatic changes in the local maritime environment, an element that will be examined in further detail later throughout this study.

Around 1852 after the grazier's lease expired, the government reclaimed the area and established a subdivision of allotments for use as a seaside resort during the summer months, as it was protected from prevailing winds and had views of passing shipping. The first land sale held in 1853 sold blocks predominantly to the pilots and lighthouse men, but also to wealthy business men and successful gold diggers from Melbourne, Geelong and the Western District who either required holiday homes (Dod 1931:8-9) or anticipated the value of the area as a seaside resort (QS 27/1/1912). The region was renamed Queenscliff prior to the first land sales (QS 28/2/1914), and the name Shortland's Bluff subsequently referred to the prominent headland only. The township of Queenscliff was defined by an isthmus leading to a narrow

peninsula projecting into the south west side of Port Phillip Bay. The borough of Queenscliff later encompassed the later township of Pt Lonsdale 5km to the south west.

By 1854 a row of houses for the pilots service (Pilots Row) had been built by the government, along with the first summer cottage and a hotel. Tourism was to play a major role in the development of the town from this time onwards (Thompson n.d.:1), and was serviced predominantly by seaborne transport in the form of bay steamers and specialised ferry transport which contributed to the installation of substantial piers. Furthermore, the popularity of sea bathing and sea air for health purposes led to the establishment of a series of enclosed sea baths, a number of convalescent homes for sick children (*Cottage by the Sea, Santa Casa*), retreats for clergy (*Lathemstowe*) and other tourist facilities (such as grand hotels, guesthouses, promenades and business districts) from the earliest periods of settlement, which shaped the town's foreshore aesthetics and use for many years. Tourists came from as far afield as Ballarat, Bendigo, Melbourne, Geelong and the Western arm districts of Victoria. The initial high cost of ferry transportation led to the development of Queenscliff as an exclusive tourist destination for the high class social elite. However, with the introduction of a train connection to the township in 1879, along with cheaper tourist excursion fares around the same time, enabled lower and middle class tourists from Melbourne to visit the township (QS 21/1/1884, 26/5/1894; Inglis 1999:73-8). The influx of thousands of these day trip and weekend visitors changed the social dynamics of tourism in Queenscliff (which had previously been considered a genteel society), but also opened many new opportunities for local residents and tourism operators. Tourism peaked around the turn of the nineteenth century, and changed markedly with the transition from the use of sea baths to open sea bathing which was associated with relaxed attitudes to mixed sexes bathing (Wells 1982:86-7). Tourism still plays an important role in the area even today.

The influx of shipping through the area generated the need for many other maritime services in this area. Customs officials were responsible for the enforcement of quarantine and passenger regulations in 1852 (Day 1992: 283-5). Many steamers during the gold rush were overcrowded and offered poor accommodation conditions, leading to disease outbreaks and the possible introduction of epidemics into the colony. When the emigrant ship *Ticonderoga* arrived at Port Phillip Heads in 1852, many of the passenger and crew were sick with typhus, and 100 people had already died. A supply ship was equipped with medicines and food to treat and feed the ill, along with a specifically purchased Quarantine Hulk (*Lysander*) were taken to a bay west of Portsea with enough supplies to last three months (GA 6/11/1852:2). Over 180 of the passengers died from typhus and scarlet fever (Draper, 1900:9). Similar occurrences on other immigrant vessels in the same period (e.g. *Marco Polo*, *Borneuf*, and *Wanata*) led to sweeping

reforms pertaining to the types of vessels thereon of that could be used for immigration, along with recommended standards of hygiene. A permanent Quarantine Station was established west of Portsea (at Ticonderoga Bay), and an Immigration Officer was appointed at Queenscliff to process incoming immigrants, inspect conditions onboard incoming vessels, and ensure adequate stores had been carried onboard (GA 30/10/1854; Kruithof 2002:103-5). In 1852, the Health Officer (who inspected immigrants of foreign vessels for disease) was transferred from Portsea to Queenscliff. Both officers used whaleboats that were launched off the beach to board vessels inside the Heads (Dod 1931:9; Noble 1979:43). The Quarantine Station was located at Portsea until at least 1952, when most of the facility was taken over by the army (Welch 1969:85).

The increase in shipping traffic through the Heads led to an inevitable rise in shipping mishaps, and the need to establish rescue services. Pilots stationed at the Bluff initially assisted distressed vessels from the 1840s onwards until a former ships lifeboat was provided for Shortland's Bluff in 1856 (Fanning 1892b; McGrath n.d.:1). The continued incidence of local shipping mishaps led to the installation of the first of a series of purpose built lifesaving lifeboats to rescue shipwreck survivors. The lifeboat service remained as an integral part of the Queenscliff landscape until it was disbanded in 1979 (Noble 1979:49; Boyd 1996:3).

The increase in smuggling in this area and around the entire colony, along with blatant looting of shipwrecks, led to a token Customs force being stationed at Shortland's Bluff in 1853. However, given the large expanse of coastline and hundreds of vessels entering the Heads each year, the complement of a junior customs officer and boat crew proved ineffectual. A request was made in 1854 that an experienced customs officer and two policemen be stationed at Shortland's Bluff (Day 1992:292). By 1862, the customs boat stationed at Queenscliff was making raids in search of smuggled spirits as far north as Portarlington, but raised the ire of the local population when a raid was carried out on the Sabbath (GA 8/1/1863:2, 9/3/1863:3), and the boat was removed later that same year (Loney 1989a:5). By 1867, the Queenscliff Customs station was removed, prompting concern that the former smuggling trade that existed there would be renewed (GA 18/4/1867:3). After this time Customs Officers based in Geelong patrolled the area as necessary (Day 1992).

The growth of the Victorian colony also led to an increased need to improve communications with the outside world. By 1852, the steamer *Great Britain* had been engaged by the Royal Mail Steam Navigation Company for the first regular run from Liverpool (Noble 1979:46). A new post office was proposed for Queenscliff in 1853, where ships' mail would be landed and conveyed overland to Geelong (and vice versa) (GA 27/4/1853:2). Initial problems were

experienced when the mail service was introduced in 1853, and often the pilots in charge of the incoming vessels would not stop to allow the postmaster to take the mail off the vessel, which led to tension between the pilots and Customs Landing Waiter (GA 13/9/1853). This situation was probably the result of the (then) recent policy for pilots to board vessels outside the Heads (MMH 4/2/1853:4). The landing of the Western District and Geelong mail at Queenscliff proved controversial, as it took valuable transport trade away from Melbourne, and an inquiry into this practice was instituted after agitation from Melbourne businesses (GA 23/9/1853:2). Additionally, Melbourne bound vessels were required to either heave to or anchor within one mile of Shortland's Bluff to await the Post Office boat, which only operated in the morning. Some mariners attempted to bypass the Queenscliff mail delivery to avoid the long delays spent waiting, which led to a number of vessels gaining exemption from the drop if they had already landed at Sydney or any other Australian colonial port (GA 22/11/1853:4). However, by 1855 vessels were required to not proceed up the channels until after they had anchored and been boarded by the Health Officer, and that the pilots were responsible for removing the Geelong mail prior the vessel proceeding (GA 8/11/1855:3). By 1888, the English mail was transferred ashore for delivery overland to the Western Districts, and supplementary mail was also processed at Queenscliff for delivery via outgoing mail steamers (Sutherland 1888b:158). The former post office was located to the north of the Church of England Parsonage, before it was later moved up to the lighthouse, and the post office was supplied by a mail coach from Geelong (Fanning as cited in QS 24/12/1910).

Telegraph stations were important communications centres in the nineteenth century, both for civil and defence purposes. Although proposals were made to erect a telegraph cable between Melbourne and Shortland's Bluff (1849) and between Geelong and the pilots station at Queenscliff (1853), these suggestions were rejected (CSO 1849; GA 27/4/1853). A year after the first telegraph office opened in Geelong (to Melbourne) in 1854, a service opened from Geelong to Queenscliff (Brownhill 1990:583). The electric telegraph between Geelong, Williamstown and Melbourne in 1855 meant messages between Geelong and Melbourne could be received and replied to within an hour, instead of a weeks journey, and greatly simplified customs operations there at the port of Melbourne, as there was no longer need for boat crews to row to the Melbourne customs house (Day 1992:290).

Defence has played a vital and consistent role in the landscape evolution of the Heads region. The first British settlement in Victoria, Sullivan's Cove, was initiated in 1803 to thwart French occupation of what was then southern NSW, but was later abandoned when the threat had passed (Coutts 1981: 2-5). The period around the subsequent extensive settlement of Melbourne and Port Phillip in 1835 until the end of the nineteenth century was one of great upheaval and

paranoia amongst the British communities worldwide. England was often either at or on the verge of war and her colonies often felt themselves as potential targets for potential aggressors. After numerous war scares heightened the public's concerns of possible invasion from the 1850s onwards (GA 12/11/1852, 12/9/1854), several joint committees on defence recommended the fortification of The Heads region (e.g. Macarthur et al. 1858:949, 1859a). Over the years, up to seven fortresses and innumerable associated military facilities were established around the Heads area to combat the threat of potential invasion, including Fort Queenscliff at Shortland's Bluff which began in 1863. Furthermore, numerous defence vessels were stationed at the Heads (particularly at Swan Island – see Appendix B-1 for a summary history of Swan Island) to complement the networks of coastal fortresses, and were supplemented with other naval/government vessels during annual war game events held at Queenscliff and other Heads townships. Defence played a leading role in the development of the Heads area well into the twentieth century.

It can be seen that there was a diverse range of official maritime services operating in the maritime landscape of Queenscliff. However, there were also a number of other extractive industries that were based in the area that relied on the sea for transport and/or resources and affected maritime development of the area.

B) Extractive Industries

A fishing industry developed in Queenscliff in the early 1860s when a large population of originally Chinese and later European fishers arrived in the area (Fanning 1893; Kerr 1985:69). Dried and later fresh fish were an essential food source for the early colony, especially to provide the increased demand at the goldfields (Wynd 1988:115), and within a few years a large fishing community had been established in the township. Early fishermen initially inhabited the lower areas of Queenscliff and Swan Island from 1867 (Dod 1931:26-7, 80). The presence of the fishing industry progressively led to the installation of major maritime infrastructure for boat maintenance and shelter in this area, and was a key maritime industry that affected the development of Queenscliff. It continues its presence in a somewhat reduced capacity in the area today.

Limeburning was one of the earliest industries in Port Phillip, with limestone resources initially exploited at the Sullivans Bay settlement in 1803 and later extensive mining along the Mornington Peninsula from at least 1836 onwards. Limeburning provided one of the principle building components (lime) which was in great demand within the booming development of the colony. The first lime extraction at Queenscliff and its effects on the denudation of local forests

for fuel was noted in 1844 (but probably referred to deposits at Pt Lonsdale). A flotilla of small boats (known as the mosquito fleet) serviced the lime industry at this time (Harrington 2000:21, 31). The presence of lime boats in the area of Lonsdale Bight was recorded in 1850 (Intelligencer 31/8/1850:902 Baillieu Collection #51). After the first lands sales in 1852, a brick yard and lime kiln had been established near Swan Bay (at Marcus Hill, Dod 1931:4), and by 1854 James Hutchins and J. Cooper had started small farms and lime kilns in the back country at Pt Lonsdale, about a mile from the Signal Station (Dunn 1949:35, 1963:20; Harrington 2000:32; [CA]). Limeburning also led to the establishment of several brickworks in the area [CA].

Guano mines providing fertiliser for agriculture operated at both the Mud Islands and Duck Island until the 1920s (Prescott, 1970; Yugovic 1998:20). The Duck Island deposits were utilized mainly to meet the needs of local farmers, and were accessed by a system of causeways that connected Swan and Duck Islands [CA; CS; GW]. The Mud Islands deposits were discovered in 1852, and were reputed to have the largest guano deposits in the state (GA 1/11/1877). The deposits were commercially exploited from 1859 - 1902, where like most other guano deposits around the world they were exhausted (Yugovic 1998:20-1, 30, 90).

Wattle bark collection was another common early extractive industry in Port Phillip Bay and along the Victorian coast (Wynd 1988:115; Hunt 1999:17). Wattle bark was used as a tanning agent for leather goods, and stripped trees were subsequently felled for firewood. Large numbers of woodcutters were employed by George Cole based out of St Leonards, who had established a pier and small township there as early as 1855. By 1865, numerous woodcutters and their families inhabited the surrounding area including Swan Bay, and small vessels of 15 to 70 tons provided firewood for Melbourne, Williamstown and Sandridge. Firewood was still an important trade at St Leonards in the 1870s (Wynd 1988:115, 130). Wattle Bark was recognised as the most powerful bark (for tanning) in the world in 1878, and as exports demand grew for both bark and tanned leather goods, bark cutting was widespread right across the Bellarine Peninsula. Bush land brought higher premiums than cleared farmland, as it offered prospective farmers an alternative income source to regular crops (Wynd 1988:54). The Port Phillip Bay mosquito fleet were heavily involved in the transport of lime, firewood and bark for tanning in Melbourne, and would bring supplies down to Sorrento and Queenscliff, for the fishermen and lime burners, and would return with either lime, pre-cut timber lengths for the Swallow and Arial biscuit factories, or wattle bark for the tanneries in the Yarra and Maribyrnong Rivers (Field 1962:36; Loney 1981:87; [DB; JB; GH; HeH; PF]). Teams of up to 200 men were employed to harvest the timber of surrounding hills. This practice greatly assisted the development of agriculture in the area, as farmers were either paid to clear their

land (or tendered the process to bark strippers) to supply the markets in Melbourne, and continued until at least the 1950s (GA 11/3/1878; Wynd 1988:54; [GH; HeH]).

Several other extractive industries also existed in the area that affected the development and use of maritime infrastructure. Seaweed and seagrass was regularly harvested for local use as insulation [LID; PF; BM; GW], manure (QS 23/9/1893, 8/12/1894; [BM; JP]) and possibly also for potash and/or iodine (QS 5/2/1916). Salt pans were established at Pt Lonsdale in 1863, and although several attempts were made to generate an industry over the years up until 1934, all proved unsuccessful (GA 27/9/1875, 14/6/1876; Cuzens 1912:6; Dod, 1931:53; Dunn 1963:20; Wynd, 1988:133; Photo PH4216 – QHM Collection). Sand mining was also undertaken at Swan and Mud Islands, and Edwards Pt [CA; PF; PM; RF]. Shell grit was extensively extracted from the southern section of Swan Bay and Lonsdale Lakes, and the Mud Islands for use in glass production in Melbourne, and in the chicken feed industry (Evans 1978: 81; Wynd 1988:54; QH June 2004:6; [BM; DB; JP; PF; SS]). Further details of the extractive industries are contained in Appendix B-2.

C) Transport Networks

The isolated nature of the township led to a heavy reliance on the maritime transport networks. Beginning with the mosquito fleet, a steady stream of sailing and steamer vessels began to supply the township on a regular basis (Field 1962:36; Loney 1981:87; [DB; GH; HeH; JB; PF]). Several piers were constructed in Queenscliff Bight from 1853 onwards, including the Queenscliff/ Fishermen's Pier (1856: Cuzens 1912:1); Boat/Doctor's/Pilots Jetty (1864: McWilliams 1865 plan; VPRS 2143: 64/288, 65/92, 65/159; Dod 1931:9; Bluelight 1911) and New Pier (1884-1885: QS 19/7/1884; VPRS 2143: 84.5/257). An extended consideration of the development of the Queenscliff piers is contained in Appendix B-3.

Although an early track was constructed to the township from Geelong in 1853 and a later rail line was built in 1879, maritime modes of transport still predominated in the area (Perry 1973:41). Even when public access roads were constructed into Queenscliff, they were often blocked by sand drifts, high tides (Dod 1931:50, 51) or floods from Lake Connemara [CA]. In the early days, this necessitated the use of a submerged limestone causeway from Burnt Point across Swan Bay to the township (QS 10/3/1894, 1/6/1895; Dod 1931:55; Monk 2003:10; [GW; JP; LID; WN]). This natural underwater track was extensively used by the local community as an informal access route across Swan Bay, and provided a route to deposit rubbish on a small island and to transport nightsoil from the township to a dump at Burnt Point. Other submerged tracks from Burnt Point to Knights Road [GH; GW; LID; PM; SS], and from Swan Island to

Duck Island [CA; CS; GW] were also known to exist in the area. Further aspects of these tracks are contained in Appendix B-4.

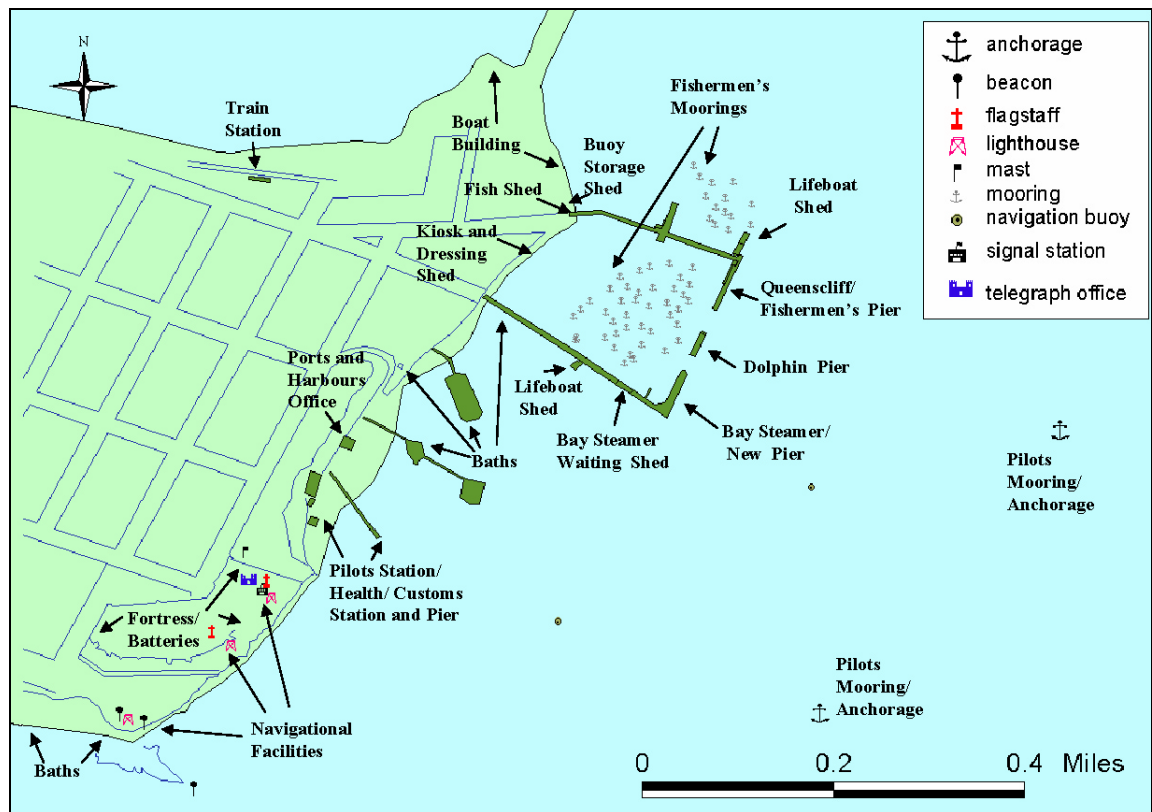


Figure 4. 6: Major maritime infrastructure sites in Queenscliff Bight 1842 – 1929.

The proliferation of maritime services and other industries at the Heads had a profound influence on the development of the area. The geographical location of Queenscliff placed it at the crossroads to all shipping movements servicing the colony. Queenscliff was often the first port of call for early large international shipping which had to stop for various government inspections and mail services, before passing onwards to Melbourne and Geelong. Smaller inter-colonial/interstate traders and passenger ferries also occasionally delivered mail and supplies here on their inwards journeys, and later the township was a regular destination for tourist excursion vessels. The siting of intensive terrestrial and naval activities, pilotage, customs, health, fishing, extractive industries, immigration, lifeboat service, navigational, tourism and mail operations (and their associated boats/vessels) together with many other smaller intra-Bay sailing vessels that serviced the small coastal townships, led to the development of Queenscliff as a hub of maritime transport routes on many different scales (see Figure 4.6). All these industries and services relied on the transport of goods, workers or passengers via the sea. These led to a series of maritime transport routes that utilised seaborne vessels, cross strait ferries, local small craft and submerged causeways. These facilities led to

the development of a maritime identity that pervades the very character of the Queenscliff township.

5) Analysis: Choosing Suitable Landscape Themes

The unexpected size and diversity of the maritime industries in the study area were well beyond those anticipated when the study began. Analysis of the data sources outlined in Chapter Three revealed numerous themes based on maritime exploitation of the study area. These included: the Pilots', Lighthouse, Lifeboat, Customs', Quarantine, Mail, Ports and Harbours and Hydrographic Survey Services; defence; extractive industries (including fishing; agriculture; salt production; sand, shell, guano and seaweed extraction; firewood and bark gathering, and lime burning); shipwrecks and associated looting; smuggling; tourism and tourists; merchants; and transport routes and destinations. Although all these themes were intensively investigated, it has not been possible to include all of the research in this thesis, as there were clearly far too many topics to adequately address in this study. Hence in order to keep the study manageable, selective analysis of a number of identified key industries and events was undertaken in further detail to understand the functionality of Queenscliff as a maritime township.

Analysis of all the data sources revealed four themes that showed the greatest influence on the area, demonstrated the greatest diversity of local landscape perspectives and data sources, which in some instances cross cut other themes. These were:

- Defence
- Fishing
- Shipwrecks and Strandings
- Landscapes of Interaction

These themes were chosen as they cover the widest scope of internal/external views and social groups that might exist in any area, and also because they represented the largest and most influential social groups in the community. Further details of some of the other industries mentioned are (by necessity) expanded or mentioned in forthcoming chapters.

There were many and varied ways to look at landscapes, including examination of the physicality of cultural landscapes or the groups of people who inhabit it. The themes outlined above are an example of an approach that has been taken by this study, but it is recognised that there are many other directions that could have been investigated. Several different perspectives could have been taken, and might have included any of those other activities outlined above, but

also other more ethereal aspects such as roads and tracks, relationships linked to religious groups or dozens of other combinations.

The diverse nature of each contributing element of change was explored, and these were later contrasted between landscape themes to demonstrate the complexity of landscape evolution. Furthermore, as each theme was investigated, particular attention was given to the types of data that informed of each activity/event, as these observations were central for an assessment of the suitability of the methodological application of disparate types of data sources for landscape analysis. As will be seen, the diversity of each group's landscape experience of the same arena was starkly different, and was driven by highly contrasting influences that were informed by equally distinct data sources. It will become evident by the conclusion of this thesis, that these diverse landscapes could ONLY be analysed using disparate data sources.

6) Discussion

The following chapters will look at the functionality of the Queenscliff community from four different directions. Chapters Five to Six examine groups of people (i.e. defence forces, and fishermen), who represent the perspectives of temporary residents (that represent an institution) and permanent inhabitants. The examination of these themes allows us to investigate two highly different social groups, which will demonstrate not only the existence of nested cultural landscapes that exist on local, national and international levels, but also the different perceptions and landscapes of permanent vs. itinerant people. Tourists and tourism presented another particularly significant theme in the development of the township but which had to be omitted from the main text of the thesis due to space restrictions. This theme is considered in further detail in Appendix D.

Through the individual examination of each theme, it will be shown how the use of disparate data can illuminate hitherto unrecognised components of landscapes, how landscapes are constructed and the multiple levels at which they exist. Each theme will be minutely investigated to examine the correlation between documented cultural practices and the tangible archaeological signatures that they produced within the arena of their environmental surrounds, whose ethno-archaeological characterisations and spatial patterning might then be used to inform of analogous behaviour in other regions. The underlying ideologies that influenced the social behaviour of each group will also be examined to elucidate cognitive cultural landscapes that exist at many different scales and their potential physical expressions within the community.

Chapter Seven investigates the effects of an introduced event into the area (in the form of shipwrecks) and its implications for local landscape construction. It will examine two conflicting perspectives of the same incident within the local community, and the cross cutting nature of shipping mishaps in the region, which is informed by combinations of every type of data set, some of which (i.e. folklore traditions accessed through oral histories) have not been explored in great detail before this time. Comparison of these data sources provided very different views of the same shipping mishap, and illustrated the range of disparate values associated with these events, and their later transformation into places. Chapter Eight draws together observations of the individual groups and event themes to examine the social interrelationships of these and other community groups, and the subsequent nuances of landscapes of interaction.

This chapter introduced a real world scenario to examine the application of the proposed methodology for the investigation of the cultural landscapes of a coastal community. It has analysed and demonstrated the diversity of themes available for a study area, and outlined an introductory history of the region's maritime services. In the next chapter the presence of the military in Queenscliff will be explored in greater detail to investigate the application of the methodological approach to examine the defence landscapes of Port Phillip Bay.

Queenscliff residents seldom realize what this would mean to them. In an action at the Heads the town would probably suffer more than the fort...It is therefore sincerely hoped...that the day is far distant where we shall be awakened to hear the dreadful booming of the enemy's cannon at our gates (QS 25/4/1908)

Chapter Five: Defence Landscapes of Port Phillip

1) Introduction

Defence has played a vital role in the formation of the landscapes of Australia since the very inception of European settlement. The nineteenth and twentieth centuries were periods of major upheaval both nationally and internationally, which markedly affected the development of the Australian nation. Given the strong pervasive presence of armed forces in almost every major coastal town in the country, the study of the military presents an opportunity to examine maritime landscapes that exist at many different levels.

In order to understand what drives the development of defence landscapes, this chapter will explore the historic military expansion in Port Phillip, with particular focus on a number of key mechanisms that drove the spread of the military presence around The Bay. The episodic and dynamic nature of defence landscapes is investigated, and it is advocated that they were in part either controlled or influenced by external world powers and events. It will be shown that the impetus behind these military developments was frequently physically invisible or distant to the local community, as they were based on implied threats spurred on by events and authorities thousands of miles away. These local responses produced cognitive and often paranoid landscapes which were influenced by the fears and trepidations of others much further afield.

Advances in military technology played a vital role in the transposition of military landscapes both temporally and spatially. The effects of technological improvements in military hardware will be shown to have heavily influenced the strategies and placement of defence sites, and furthermore that Port Phillip provided a proving ground for new technology/ approaches to defence, and that the very frontier nature and isolation of the colony encouraged these practices. The archaeological expressions of military occupation sites will be examined in further detail to explore the types of signatures left behind by defence places and personnel. When viewed in association with known activities and behaviour in these areas, these characterisations might provide explanatory evidence for areas where other data sources are deficient.

The large military presence in the area undoubtedly influenced other sectors of the township. Therefore the effects large military presence in the Queenscliff area will also be explored in regards to the generation of other community landscapes, with a particular focus on the differential meanings of the military presence in this area.

2) History of Defence of the Victorian Colony

A) Early Defence Considerations and Overview

Ever since the first British settlement at Sullivans Bay in 1803, defence considerations have shaped the use and non-use of The Bay. By 1836, the new colony's first defence force was formed when 30 troops arrived from NSW on the *HMS Rattlesnake* (Noble 1979:86; Coutts 1981: 2-5). The discovery of gold in 1851 prompted major concern that a hostile vessel could enter The Bay and hold the colony to ransom (Macarthur et al. 1858:949). The Argus newspaper (31/12/1853, as cited in O'Neill 1988:39) printed the following ominous warning:

...In the event of war we are in a very defenceless state and that the fact of it being known all over the world that we have a few millions worth of solid gold within cannon shot of The Bay is a circumstance which renders us peculiarly liable to attack.

With the secession of Victoria from NSW in 1851, it became clear that a series of defence networks were required for the colony. Initial fortresses were suggested for The Heads in 1852-3, especially due to the proliferation of maritime activities and essential government services based there (GA 12/11/1852; Tate 1982:4). With the onset of the Crimean War between Britain and Russia from 1853-56, calls were made to fortify The Heads region to deter any potential Russian attack after rumours circulated of Russian warships patrolling the Pacific, and concerns were expressed that a hostile ship could easily hold Geelong or Melbourne to ransom (Sutherland, 1888a:461; Brownhill 1990:634-6; Pearsall, and Trumble 1996:338). The colony's association with Britain also exposed them to attack by the Empire's enemies, which potentially included France, Russia and America (O'Neill 1988:39). Additional anxiety was raised in 1854 regarding the proximity of new French settlements in the Pacific and exploration attempts along the Australian coastline (Tate 1982: 4). An alarming situation occurred after Imperial troops became responsible for defence in 1853 when the *SS Great Britain* fired a saluting salvo upon entering the harbour the next year, which caused great panic amongst the community at Melbourne, leading to calls for the fortification of Queenscliff and its recognition as the key to Port Phillip (GA 12/9/1854; Noble 1979:46, 47).

Thus began the series of many war scares throughout the nineteenth century that led to a constantly renewed state of military preparedness. Many alerts were instigated by international tensions between Britain and potential aggressors, visitation of foreign warships (Tate 1982:50), or (perceived) severed communications cables (Age 30/6/1888, 2/7/1888, 4/7/1888; Argus 3/7/1888, 4/7/1888). Hyslop (1976) recorded that there had been 200 war scares in Australia during the nineteenth century, which gives some idea of the contemporary state of mind of the colonists. The Australian colonies not only represented rich targets to potential aggressors, but also supplied vital agricultural produce to England, and acted as essential strategic coaling depots for the steamships of the British Navy. Furthermore, the Alfred Graving Dock (Melbourne) represented the largest facility of its time in the Southern Hemisphere, and was vital for international vessel maintenance, a consideration which was further reinforced when the American Confederate Raider *CSS Shenandoah* arrived to use it in 1865 (Noble 1979:84; Kitson 1987:6.9).

With the onset of the gold rush, Victoria had become a very prosperous state, and many vessels now left the port laden with fortunes in gold for return to England. Looting and piracy of vessels was rife, even within the Metropolis' harbour itself, which led to the establishment of a water police force in 1853 to combat the rise in mutinous crew behaviour (Sutherland 1888a:136, 333; Draper 1900:1-6; Noble 1979:83). The isolation experienced by the colonists added to their concerns, as it often took months to communicate between Britain and the colony. A Select Committee investigating the Colony's defences in 1854 suggested the Victorian Government should deploy eight guns and howitzers and a warship steamer, and that the Imperial Forces stationed in the Colony could be supplemented with troops from India. Although these recommendations were not adopted, there were other factors coming into play (e.g. Eureka Stockade) which led to an upgrade of the Colony's defences. A number of local communities in Melbourne and Geelong formed Volunteer Corps and in December 1854 they received official Government recognition under the *Volunteer Act 1854* (Marmion 2003:33). Although the Allied war campaign in the Crimea proved victorious in 1856, the volunteer movement stagnated until another war scare in 1859. By 1863, the ranks of the Volunteers had swelled to 31 corps with 4000 men including a large detachment at Geelong (Sutherland 1888a:461; Brownhill 1990:634-41; Marmion 2003: 39-57).

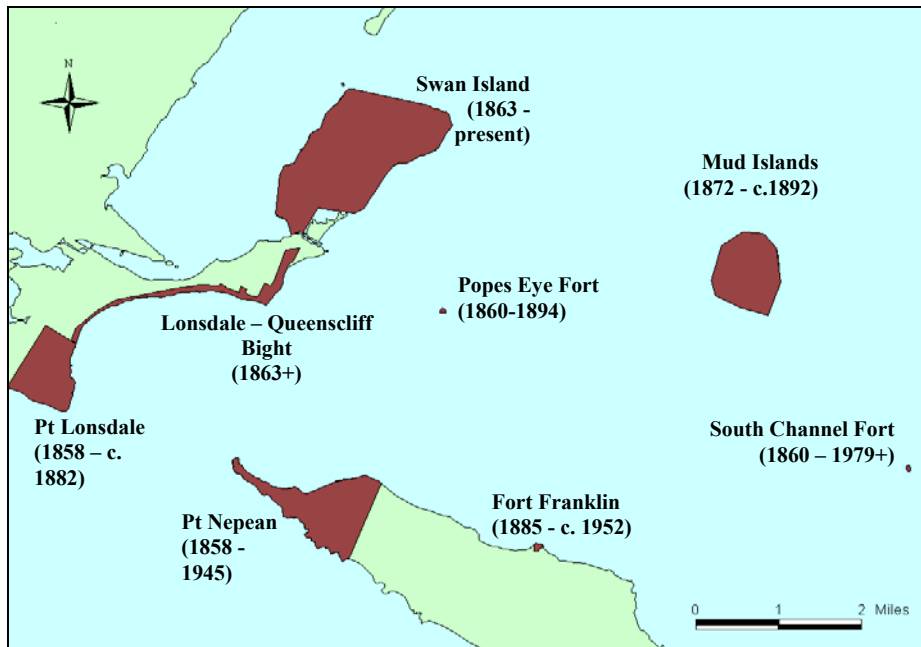


Figure 5. 1: Major defence reserves of southern Port Phillip.

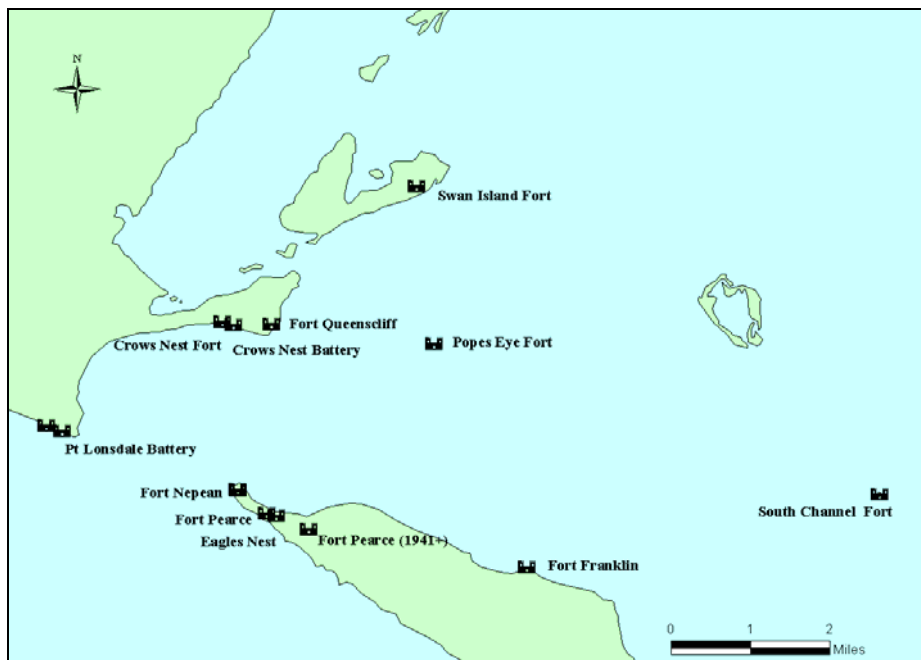


Figure 5. 2: All forts and batteries in southern Port Phillip Bay between 1861–1945.

In the period between 1854 and the 1880s, several Royal Commissions and advisory committees considered the problem of how best to defend the colony (Macarthur et al. 1858, 1859a, 1859b; Scratchley 1860, 1863, 1864, 1882; Barkley 1861; Select Committee 1861, 1865a, 1865b; Pasley 1864a, 1864b, 1865a, 1865b; Wiseman et al. 1864; Anderson 1865; Pasley and Scratchley 1865;

Verdon 1865; O'Shannesy et al. 1876; Jervois 1877, 1879; Scratchley 1882; Cook 1887. Two principle advisors, Major Peter Scratchley (of the Royal Engineers) was sent from Bombay and Col. Drummond Jervois (the Director of Works and Fortifications in Britain), were to have the most influence (Perry 1973:40). The collective recommendations varied between the establishment of fortifications at The Heads or closer to the metropolis at Hobson's Bay (Melbourne), which led to the reservation of many coastal areas as restricted defence reserves in anticipation of the installation of later facilities including at Pt Lonsdale (McWilliams 1865 [plan]; Macarthur et al. 1858:949, 1859a; Select Committee 1861; Scratchley 1863:7; O'Shannesy 1876:781]), Lonsdale Bight foreshore to the Queenscliff jetty (Philp 1856a, 1856b, 1856 [updated 1875] [plans]; McWilliams 1865 [plan]; SGO 1882 [plan]), Pt Nepean, parts of Geelong and Hobson's Bay, Swan Island and Pt Nepean (Scratchley 1863:7-13, 26) and the Mud Islands (1872- VGG 19/1/1872, as cited in Yugovic 1998:233 (Figure 5.1). The colony at this time was still heavily reliant on England for the provision of funding, which was not always forthcoming (Select Committee, 1865a:807; 1865b:887). Britain favoured the provision of obsolete warships as a stopgap measure, which placated the appeals for colonial defence countermeasures with minimal cost outlay. It is in this environment that defence considerations were introduced to the Colony of Victoria.

B) Ordnance, Military Technology and the Spatial Distribution of Batteries

An understanding of the progression of guns that were used in the Colony is essential for interpreting the development of defence networks and batteries around the Bay (Figure 5.2). The history presented here is by necessity truncated, as the vast scope of this subject is far beyond the confines available for this discussion. An outline table of significant historical events are presented in Appendix C-1 and an extended consideration of the history of defence in the Bay is provided in Appendix C-2.

The initial gun of choice was the smooth bore 68pr (pounder), which although it was the gun of choice for at least 30 years, demonstrated restricted firepower and limited range. It was extensively installed in the Colony's earliest forts at Sandridge and Williamstown (see Table 5-1), but its limited trajectory effectively restricted the areas where it could be used to narrow bays encompassed by enclosing peninsulas, which required supplementation with naval vessels that acted as floating gun platforms (e.g. HMS *Electra* (1853), HMCSS *Victoria* (1856), Sir Harry Smith (1859), Elder Gunraft (c.1865; - Figure 5.3), HMVS *Nelson* (1868) - see Appendix C-3).

The development of the Armstrong 80 pr RML gun overseas in 1859 led to renewed consideration of the placement of forts of the Heads (Macarthur et al. 1858:949, 1859a; 1859b; VGG 11/10/1859; Scratchley 1860; 1861 [plan]; Select Committee 1861:338). However these guns were in great demand throughout the world especially for Britain's own defences, and were unavailable for the Colony's needs (Pasley 1865a:62). Although the anticipated installation of the new gun types led to the establishment of the Queenscliff Volunteer Artillery in 1859 (in anticipation of the instalment of a battery at Shortland's Bluff - Macarthur et al. 1859b; VGG 11/10/1859; Scratchley 1860:22) further development of the area was hindered due to their lack of availability. The threat of war with America in 1861, led to renewed calls for increased defences in all the colonies (Barkley 1861; Select Committee 1861:337) and seven new shore batteries were constructed at Williamstown and Sandridge at Melbourne, along with a 3 gun battery at Queenscliff (VPD 1862: 420, 718; VPRS 2143:1; Scratchley 1863:7; Sutherland 1888a:462; Duncan 2003a:276, 280, 392, 440). The visit of the Russian screw frigate *Svetlana* to the colony in 1862 may have added impetus to completing the defences, and led to the installation of a permanent three gun battery at Shortland's Bluff by 1863 (Scratchley 1863:9, 10, 29; Wiseman, 1864:36; Tate 1982:50 - Figure 5.5). A small (two gun) battery was also constructed to defend Geelong in 1863 (Brownhill 1990: 639).

New attitudes to the visual imposition of fortifications were introduced around this time that reflected a trend away from the previous strategy of ominous presence towards one of camouflage. Instructions were given to encourage weeds, shrubs, trees and other vegetation to grow around fortresses, and gun emplacements, and a willow plantation for gabions and fascines was planned for Williamstown, (Scratchley 1863:14, 30, 1864:32).

Because the 80 pr were not available, rebored Paliser guns (which used a new rifled bore inserted into old smooth bore guns) were recommended (in 1865) and utilised in the colony from 1867 onwards. Although these guns were an improvement on the previous range of the smooth bore guns, they still did not appreciably increase the gun range enough to warrant forts at the Heads (Pasley 1965a:62; Select Committee 1865b:v; Billett 1994:5).

A series of floating blockade ships were used by the Colony during this period to supplement the coastal defences, including the *HMVS Nelson* (1868), and later the *HMVS Cerberus* (1871). In the interim, submarine mining technology was proposed for Hobson's Bay in 1863 (Scratchley, 1863) and again in 1867 to supplement the batteries. By 1870 a torpedo depot had been established at

Fort	Date Begin	Date usable	Date End	68pr	80 pr RML Armstrong Guns	9" RM L	HP BL	6" Mk VII	4.7" QF	Outdated fort/ result
Williamstown Forts	1854			1854						Batteries redundant late 1870s
Sandridge Forts	1855			1855						Batteries redundant late 1870s
Fort Queenscliff	1860	1862?/ 1884	1945	1861/ 1862	1878	1880	1884	1908		
Fort Nepean	1878	1882/ 1884	1945		1878	1878	1889	1908		
Swan Island Fort	1879	1881/ 1885	1909		R 1879	R 1879	1884			Redundant due to Mark VII Guns at Qcliff and Pt Nepean Forts - demanned 1909
South Channel Fort	1879	1888	1906		R1877	R 1877	1885 - 1888			Redundant due to Mark VII Guns at Qcliff and Pt Nepean Forts - demanned 1909
Crows Nest Fort		1886, 1908?/ 1914	1908				1886			Redundant due to Mark VII Guns at Queenscliff and Pt Nepean Forts (c 1908)
Fort Franklin	1885?	1889/ 1939?	1906?/ 1945			1885	1889			
Eagles Nest Battery	1885?	1886 1889	1945			1885	1889			
Popes Eye Fort	1886		1889			R 1877				Redundant due to HP RBL Guns at Swan Island (1890s)
Fort Pearce - moved to Cheviot Hill 1941	1911		1941/ 1945					1911		
Pt Lonsdale Battery		1942	1944					1942		
Crows Nest Battery		1943	1944						1943	
Note: R = Recommended										

Table 5.1: Fortress/Battery Installations associated with Changes in Gun Sizes.

Williamstown where the former prison hulks *Deborah* and *Sacramento* were used as torpedo store and assembly ships, along with a torpedo ground (minefield) which has probably been installed by the late 1870s (Yule 1884:334; Jones, 1986: 39; Duncan 2003a:237, 255). The term torpedo referred to static submarine mines prior to the 1870s, but was used after that time to refer to self propelled explosive devices, when the former then became known as mines (Bray 2004:5), however the use of this term was interchangeable in Port Phillip until at least the 1880s.

The new Armstrong MLR guns first arrived in the Colony as armament aboard the new ironclad steamer HMVS *Cerberus* in 1871 (Figure 5.4), which in addition to being used as a warship, also served as a floating fortress in war strategies where it was allocated a station on the Popes Eye Shoal to protect the West, Symonds and South Channels (A11 c.1889 [plan]; Anon. 1889; HCW c.1939 [plan]). The arrival of the *Cerberus* allayed many fears about the defence of the Port Phillip settlements, and its regular training runs from Hobson's Bay to Queenscliff and Sorrento and provided a tangible reassurance for the paranoid colony (Brownhill 1990:640; Noble 1979:99).

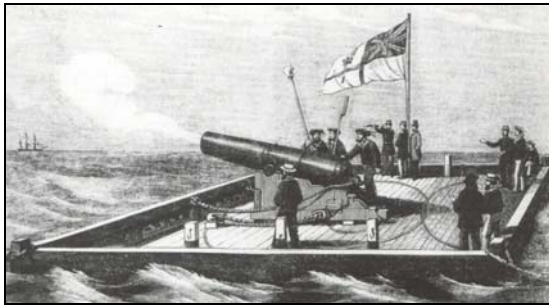


Figure 5. 3: The *Elder* gun raft at Hobson's Bay in 1865 (Calvert, 18/2/1865, IMP, SLV Collection).

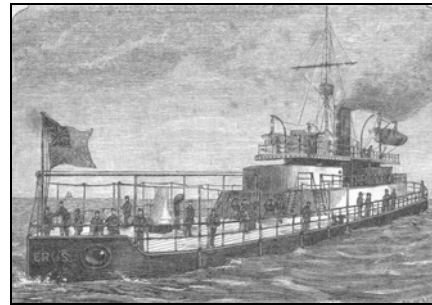


Figure 5. 4: *HMVS Cerberus* (In Sutherland 1888a:461).

In anticipation of the arrival of the Armstrong guns, in 1877 Scratchley and Jervois recommended the updating of the Queenscliff guns and the construction of extra forts at The Heads (Jervois 1879; Nicholls 1988: 181). These included two artificial island fortresses on the Popes Eye Shoal and on the northern side of the South Channel to deter any enemy vessels that might enter through The Heads, although bureaucratic indecision led to delays in their construction (Brownhill 1990:642).

However, it was not until the late 1870s when the range of Armstrong rifled gun were again increased that they were successfully applied to use at Victorian coastal batteries (Jervois 1879; Nicholls 1988:181). The widespread introduction of Armstrong guns into the Colony in 1878 dramatically increased the scope of areas that could be effectively protected, which enabled the reconsideration of a network of fortresses to be placed at The Heads (Jervois, 1879:5, 6), as intersecting arcs of fire could now be concentrated across the channels and The Rip. Victoria commissioned several 80 pr RML guns during this period together with studless Palliser shot (Hawkins 1888:251).

In 1878, Armstrong guns were mounted at Queenscliff and at the new Forts at Pt Nepean (1878) and Swan Island (1879), and were planned for the new island fortress which was being built in the South Channel (1879). This development ultimately led to the dismounting of the Hobson's Bay defences by the late 1870s (except for Fort Gellibrand - Duncan 2004: 276). These new defences were to be supplemented with torpedo (mine) fields and searchlights to detect fast moving minesweeping craft (Kitson, 1987: 2.1), the former of which were being used at the Heads by 1879.

Shifting political alliances led to increased paranoia of a Russian invasion mounted from New Caledonia, when Russia and Britain came close to war in 1879 (Constantinople) and again in 1885 (Afghanistan). In 1879, the Queenscliff defences were upgraded and work began on the Swan Island and South Channel Forts (Kitson 1987:6.2) and necessitated the relocation of the lighthouse keeper's quarters to inside the fort's enclosure. A military railway from Geelong to Queenscliff was approved in 1877 (GA 13/9/1877:2) and completed by 1879 to facilitate the rapid deployment of troops to the forts in the event of an invasion. Prior to this time the principle mode of transport to the area was by sea (due to bad roads) and Queenscliff was even considered remote from Geelong (Perry 1973:41).

Despite the urgency prompted by several war threats, and the technological innovations in military hardware, the developments of the batteries were often delayed by bureaucratic delays in funding allocation to and the implementation of defence strategies in the early 1880s. Although two batteries had been installed at Queenscliff by 1880, and the contract let for the Swan Island facility (VPRS 2143; Tate 1982:55), a lack of funds delayed works at all the forts in 1882 (Perry 1973:43; Noble 1979:105).

The Swan Island and Queenscliff forts were an integrated networked enclosure of fire that could be operated by a relatively small number of men, and 12ft high walled enclosures were constructed around these facilities in 1882 to repel landward attacks (Jervois 1879:6; Sutherland 1888b:158; Noble 1979:105). The completion of Fort Queenscliff's walls in 1884 eventually led to removal of the Queenscliff Post Office from inside the fort's perimeter to a building in Pilots Row, as public access was restricted by the Fort's interior (see Figure 5.6). The postmaster at the time also complained that the ceiling had to be reinforced with pine slats, as it tended to collapse during gunfire practice (Dod 1931:94-5). By 1885, mounds had been added to the fort to dissipate exploding shrapnel, which was a radical change in fort design (see Figure



Figure 5. 5: Shortland's Bluff three 68 pr gun battery in 1866 (Photo PH2, QHS Collection).



Figure 5. 6: Shortland's Bluff firing range practice c. 1882. Note temporary enclosure of fortress behind guns (Photo PH142, QHM Collection).

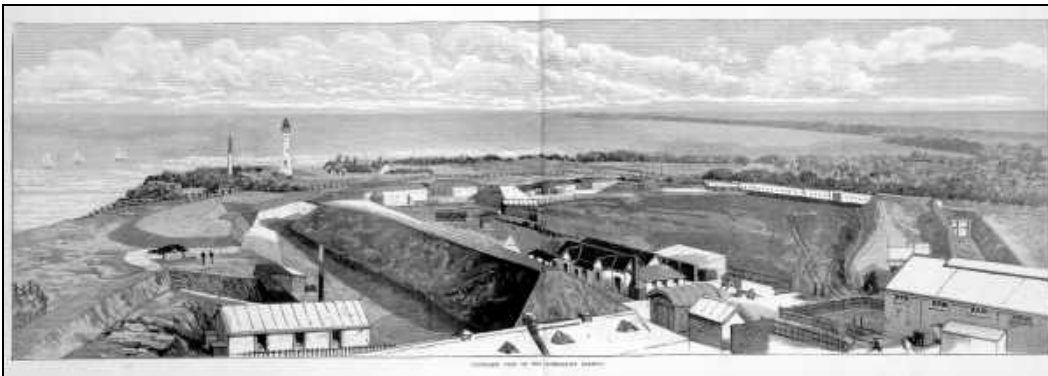


Figure 5. 7: Fort Queenscliff in the 1880s, showing massive defensive shrapnel mounds (AS, 21/10/1885, SLV Collection).

5.7). Progressive changes over time resulted in increasing size and complexity of fortress design over time, which is demonstrated in the significant changes to defences at Shortland's Bluff (as shown in Figure 5.5 – 5.7).

When 9" MLR guns were later introduced from 1878, they further increased the firing range, which led to the installation of new forts at Pt Nepean (Eagles Nest) and Pt Franklin (Fort Franklin) in 1885.

The construction of the South Channel Fort fell within a period of great innovation in military technology in the 1880s. The fortress was constantly altered during its decade of construction to incorporate cutting edge technology and new considerations in fortress design. The fort was built using a system of concrete caissons sunk through the seabed to bedrock and also the use of camouflage and sand parapets (which had been proven effective against artillery barrages in Alexandria), which were a radical change from previous fort design. The stronghold was one of the first of the low profile forts of its time, and the only shoal fort of this type in the world (Kitson 1987:1.1, 6.1).

The refocus of submarine mining from Hobson's Bay to The Heads led to the transferal of the Williamstown Torpedo Depot to a permanent mining/torpedo depot and training centre being established at Swan Island in 1884 (Duncan 2003:237). A contingent of submarine mining units (part of the Victorian Engineers) operated the base, and was responsible for the charging, laying and storage of static (mines) and self propelled torpedoes (Jones 1986: 39). The South Channel Fort was designed to eventually be the guard centre for the new submarine minefield defence system, and worked in conjunction with a newly established Submarine Torpedo Depot at Swan Island (Noble 1979:106; Kitson 1987:2.2; O'Neill 1988:44).

Several new defence vessels were commissioned as defensive technology evolved. With the introduction of the propelled Whitehead torpedo in 1877, torpedo boats were developed to deploy these devices. By 1884, the Colony established a substantial Colonial Navy when it purchased several torpedo launching craft (HMVS *Lonsdale* - Figure 5.8, *Childers*, *Gordon*, and *Nepean*), and gunboats (HMVS *Albert* and *Victoria*), and other government craft were used as auxiliary naval vessels (Noble 1979:95-9 -see Appendix C-3). The launch *SS Miner* was also obtained for the dedicated torpedo staff (Permanent Section Torpedo Corps) of the Swan Island torpedo depot (Jervois 1879:5-6; Tate 1982:61). These vessels were used both to defend against

incoming warships, but also to protect the minefields (Kitson, 1987:1.1, 6.4-6.6), and the torpedo boats were stationed at the Swan Island Base.



Figure 5. 8: Torpedo boat *HMVS Lonsdale* (QMM Collection).

Nordenfeldt Machine guns and quick firing cannons were later introduced to the Victorian Fleet as a countermeasure to the enemy using torpedoes against them (Nicholls 1988:189). The vessels all played active parts in the annual Easter war games held at Port Phillip Heads, where mock battles were staged to test the colony's defences. All were strategically anchored around the entrances to the channels, to prevent the entrance of any warship (A11 1889 [plan] – Figure 5.9; Anon. 1889; HCW 3403/ 3507 c.1889 [updated 1939 - plan]; Noble 1979:100).

A protective torpedo dock was incorporated at the South Channel Fort, along with other innovations include the installation of electric searchlights for detecting night raids on the fort and minefields, Nordenfeldt machine guns to fend off landings or torpedo boats, and the use of massive sections of the Australian hardwood jarrah as a substitute for concrete. The final design for the South Channel Fort was developed by 1885 during the Russian scare and became fully operational by 1888 (Kitson 1987:1.1, 2, 6.4-6.6).

The South Channel Fort's construction also coincided with the development of a new type of armament and mounting, the hydro-pneumatic (HP) BL disappearing gun which was also introduced to the fort. In addition to significant increases in range, these guns were shielded behind a steel cover shield, and popped up momentarily above the shield to fire before recoiling into its casemate (Kitson 1987: 6.4- 6.6). These guns were installed at several forts around The Heads (see Table 5.1), and their proposed installation at Swan Island (which could then cover across the West and Loelia Channels) led to the redundancy and abandonment of the Popes Eye (island) fortress where works proceeded from 1886 to an extent where an annulus for the base of the fort had been established above water on the Popes Eye Bank by 1889 (Tate 1982:73; Kitson

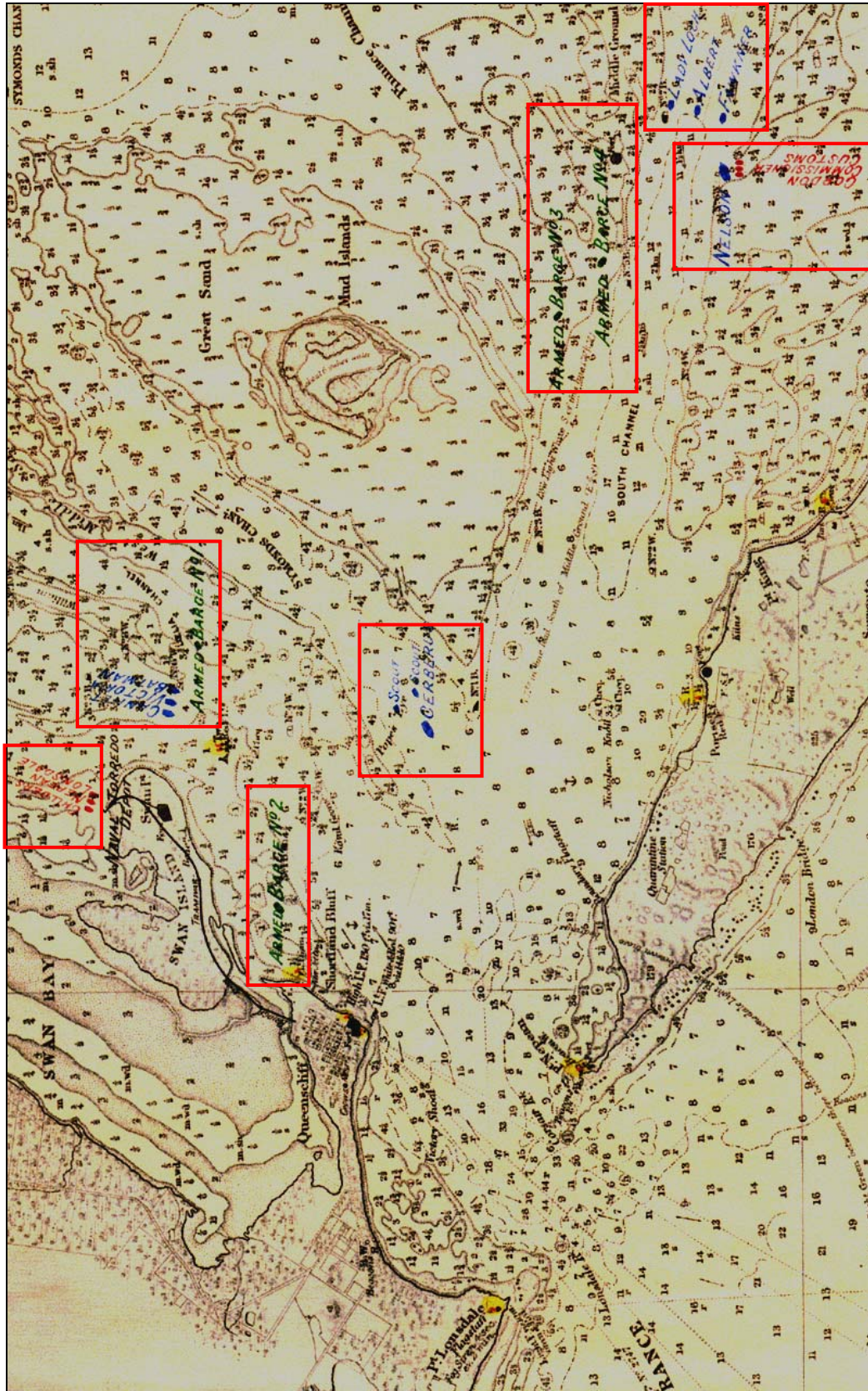


Figure 5. 9: After military plan A11, c. 1889 showing positions of Victorian Navy Defence Anchorages for Defences at Port Phillip Heads (Image courtesy FQM Collection).

1987:2.2, 6.5). These guns were eventually installed at all the forts in the area by 1889, and their availability also led to the installation of a new facility (Crows Nest Fort) to protect Lonsdale Bight.

By 1886, the defence system was finished, complete with electrical mines operated from South Channel Fort. It was an improved and more powerful battery, and by 1887 the whole Pt Nepean Peninsula was riddled with tunnels that connected garrisons with batteries and magazines (Noble 1979:106; Kitson 1987:2.2; O'Neill 1988:44). Another scare occurred in 1888, when the telegraph cable to London was accidentally severed, which prompted all the defence garrisons to be mobilized and the batteries upgraded. This situation led to the mounting of HP BL guns at Fort Franklin and Eagles Nest (Tate 1982:73), and by 1890, Melbourne was considered the best defended commercial city in the Empire (O' Neill 1988:46).

By the late 1880s, concerns also focused on potential night raids of the port, as enemy shipping could slip through the Heads undetected. Two electric searchlights were installed at Queenscliff in 1886, and by 1892, fixed (search) lights had been installed at Swan Island, Queenscliff, South Channel and Pt Nepean Forts, and were supplemented by wandering searchlights that could illuminate any vessel that wandered through the fixed beam (QS 26/11/1892; Kitson 2001:23). In 1893, another contract had been tended to construct an electric fixed searchlight on the foreshore at the Queenscliff Battery (Tate 1982:63, 69, 77).

C) Post Federation

With the passing of Federation, all defense matters were passed to the Federal Government, and all State defense forces were unified as a Commonwealth Military Force. From 1902-08 the Anglo-Japanese Alliance raised the spectre of potential hostilities with America. With the American, German, Japanese and French fleets' expansion into the Pacific Ocean, and a visit by the American battleship fleet in 1908 (QS 22/8/1908) Australia faced threats on many fronts, leading to suggestions for the formation of an Australian Navy, (Overlack 2001; Reckner 2001:175-8, 181), and the installation of 6" Mark VII guns at Pt Nepean and Fort Queenscliff in 1908 (QS 13/6/1908; Kitson 1987:7.2) The extended firing range of this ordinance resulted in the closure of the South Channel, Crows Nest and Swan Island Forts as artillery batteries. A new battery and was also built at Pt Nepean (Fort Pearce) in 1911 to make greater use of the new gun technology in The Bay, which rendered Fort Franklin redundant in its former use as a

bar to traffic through the South Channel, and it was later only used as an examination battery in conjunction with Fort Nepean during both major world war conflicts (O'Neill 1988:52; Wixted et al. 2006: 21).

Following the formation of the Australian Navy in 1911 (Overlack 2001; Reckner 2001:175-8, 181), the Swan Island Torpedo depot became a Naval facility in 1912, (QS 11/5/1912; Noble 1979:107), and the Engineers who had previously cared for the mines were placed in charge of the searchlights. Many of the former Victorian Navy Vessels were either broken up for scrap, or stripped before being re-used as breakwaters, sand groynes or piers (Noble, 1979:100; Jones 1986; Anon 1993b: 25-30).

The outbreak of hostilities led to the first shot of WWI being fired from Pt Nepean, when a German freighter tried to escape through the Heads. During WWI, the garrison at the South Channel Fort was reduced to a skeleton force (Kitson 1987:6.5). The artillerymen and engineers were often criticized for their failure to serve overseas, even though The Heads Forts were often seen as training grounds for subsequent overseas postings (O'Neill 1988:54).

In 1914, an Examination Battery was established (shared by Forts Franklin and Nepean) and a Port War Signal Station was established at Cheviot Hill (Pt Nepean) under naval control (Veale n.d.:5). The Pilot ships *Alvina* and *Victoria* were seconded as Examination Steamers, as the pilots inspected all vessels passing through the port. At this same time the infantry forces guarded the narrows at Queenscliff, and light horse regiments patrolled the countryside beyond (Tate 1982:90). A large 6" howitzer was installed near the junction of the Geelong and Portarlington Road (Figure 5.10), which was used for firing practice at Duck Island [CS]. At Pt Lonsdale, two new electric searchlights, an engine room, and E.L.D (Electric Light Direction Station) were installed in November 1914, along with a 7 ft high barbed wire fence in 1919 (DOA 1914; Troup 1916 [plan]).

In 1919, Britain presented Australia with a fleet of six destroyers and six J-Class Submarines. The vessels were so obsolete and in such poor condition that despite a refit for use in training, they were eventually decommissioned successively by 1924. These vessels were eventually stripped at Swan Island, before being hulked for use as breakwaters (J3 was used as a pier/generator at Swan Island, J7 at Sandringham, Melbourne), or were scuttled in the Ships Graveyard at Barwon Heads (Anon, 1993b 27; Smith 1990).



Figure 5. 10: Swan Bay 6” howitzer firing at Duck Island c. WWI (Photo: FQM Collection)

The Nepean defences were reduced considerably between the World Wars, and were operated by a skeleton crew who were re-supplied daily from Queenscliff by a small military boat (*Mars*) (O’Neill 1988:54). These personnel operated the searchlights at Pt Nepean at this time (QHM Photo: 1891/2572)

Prior to WWII in 1938, a review of defences decided that mining and boom gates were not required, as submarines were unlikely to enter Port Phillip Bay due to strong currents, and that attacks would probably be limited to coastal bombardments and motor torpedo boat raids in Bass Strait. The first Allied shot fired worldwide again came from Pt Nepean in 1939, again in response to a vessel failing to stop for examination. A Port War Signal Station was established at Pt Lonsdale to communicate with offshore naval craft (Veale nd:5). In 1941, the German Raider *Pinguin*, along with a captured merchant vessel that was converted to a minelayer (and renamed *Passat*) both began seeding the waters around NSW and Bass Strait with minefields (Perry 1973:49; Hunt 1999:24).

The attack on Pearl Harbour in 1941 led to another review of defences that identified weaknesses in air and naval defences at The Heads, which were open to aerial bombardment as there were only seven active guns, and no aerial defences. Emergency defences were planned, and these included sinking ships to block the fairways (as mines were in short supply), and mounting torpedo tubes on two Portsea Piers (which proved unsuitable - Noble 1979:108). As the gun emplacements at Fort Pearce were considered vulnerable to aircraft attack, they were moved to Cheviot, where a dual gun emplacement was built. Additional protective concrete shields were also installed over several guns, and a new battery observation post was built at Pt Nepean, along with a new 14 pr Nordenfeldt gun at Fort Pearce to cover the examination anchorage (O’Neill 1988:55).

The threat of war appeared closer to home around this time, when enemy submarine and aircraft were sighted in the area (Tate 1982: 97-9, 114, 121). With the threat of submarine and aerial warfare (the latter from carrier or submarine planes), the focus of war shifted further offshore and to the air. In 1942, two 6" BL Mark VII guns were removed from Fort Queenscliff to be remounted at Pt Lonsdale Battery (Figure 5.11), and the Fort Pearce Battery mounted at Pt Nepean was also moved up higher to Cheviot Hill to focus on the ocean side of the Peninsula (O'Neill 1988:55). Aerial defences in the form of anti-aircraft guns and searchlights were also installed in the recreational reserve near the fort [GW], and as were military and private air raid shelters [GW; JP]. The guns at Fort Pearce were also relocated to Cheviot Hill. In that same year, a sentry at Crows Nest was killed by an unknown person, who later fired on other soldiers. The changing scope of warfare and the increased speed of attack craft led to the installation of 4.7" QF guns at Crows Nest Battery in 1943, which could fire smaller rounds but at a faster rate. All the shore batteries were eventually replaced with offshore warships of the Australian Navy.



Figure 5. 11: Pt Lonsdale Mark VII battery (Photo: PH1928 QHM Collection).

Although the use of searchlights enabled the detection of any vessel entering The Heads, their illumination also provided a stark signal of Port Phillip's location to any enemy traffic (Brown 1999:1). These circumstances led to the development of a number of experimental installations for detecting vessels entering The Rip. In March 1942, a new experimental facility called the "Magic Eye" was installed which shone a photo-electric (infra-red or piezo electric -PE) beam from two transmitting units at Pt Lonsdale across The Rip to two receiving stations at Pt Nepean (M.E.E n.d: 2). The amplified signal triggered an alarm in the Nepean Battery Observation Post (via a cable that went ashore at the Quarantine Station) and automatically switched on the searchlights whenever shipping broke the beam. This cutting-edge facility was used in conjunction with the batteries and searchlights at The Heads, and although it operated for a few

years, the system often failed as it was continually activated by birds, waves and rain, despite the installation of a higher beam which allowed the lower beam to be switched off in heavy weather. In 1942, an indicator loop for detecting the magnetic presence of submarines was installed across The Rip underneath the beam, but was removed by 1944. Despite these failures, the potential of this new technology led to the installation of another facility at Sydney, and also other indicator loops around Australia (Army Reports 10/3/1942, 23/4/1944, as cited in Honour Editor 1989:9; Nelsen 2002).

Another PE light beam station known locally as the “Chinaman’s Hat” (and officially known as “Station M”) was installed on a dolphin structure near Popes Eye before 1942 (Figures 5.12 and 5.13). It transmitted from a site north of the south channel to transceivers located at either Pt Nepean or Portsea (its exact location was not positively identified) and to Swan Island, where similar alarms were raised, although this too proved unsuccessful. The mechanism was removed in 1944, only after the army gave priority to the development of radio direction finder/ radar equipment which made the system redundant. An indicator loop was installed on this structure to detect the magnetic presence of submarines in 1942, but was abandoned in 1943 (DON 1942; Honour Editor 1989:10; Nelsen 2002; [JB]).

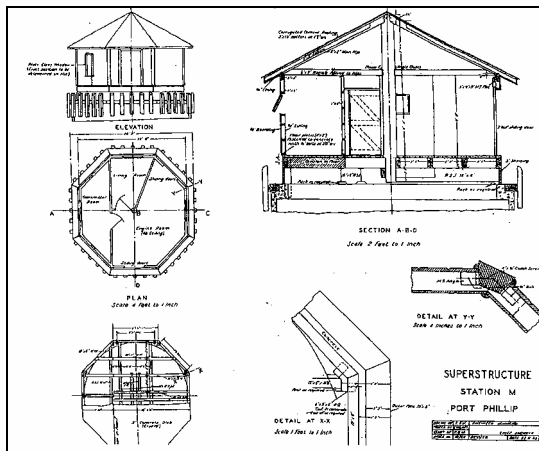


Figure 5.12: Station M Plans, Anon. 1942 (In Sinclair Knight Mertz 1999).

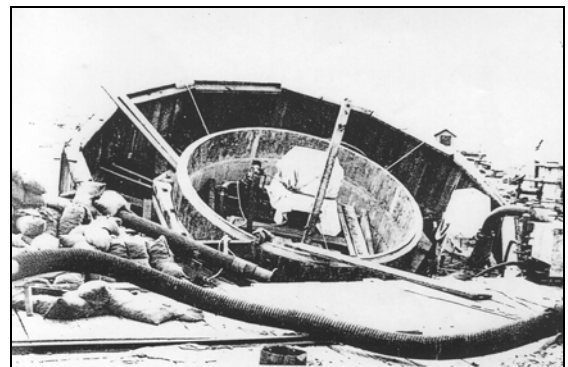


Figure 5.13: The construction of The Station M Caisson at the Fisherman's Pier (Photo: Lewis Ferrier Collection)

With the threat of war so close to home, proposals were made towards the end of the war for dual purpose lightweight guns for anti-aircraft and small vessel deterrence, which were installed at the football ground and near Crows Nest [CA; GW]. In 1943, the Port War Signal Station was moved to Eagles Nest, a hill at Pt Nepean (Veale n.d.:5). The existence of the Burnt Point

Causeway road during WWII was obviously perceived by the military as a possible defence threat, and in 1944 the area was surveyed for barbed wire entanglements. The operations at The Heads were scaled down by the end of the war, and Pt Nepean defences were declared redundant. By mid 1944, it was proposed that the Crows Nest Battery be withdrawn, and that the Lonsdale Battery be placed into maintenance (Tate 1982: 104).

By 1946 the guns were removed from Fort Queenscliff and the Fort was converted to the Australian Staff College (Noble, 1979:109; Perry 1973:49; Hunt 1999:24), as were the guns at the Pt Lonsdale batteries (DOA 1961). In 1951, the Commonwealth Government acquired temporary use of part of the Quarantine Station from the Health Department for use as officer cadet training, but this was closed in 1985 pending the opening of the Australian Defence Forces Academy in Canberra (O'Neill 1988: 56). In 1988, the site was occupied by the School of Army Health.

D) Forces Structure: Summary of Military Units

In order to understand the effect of the military upon the township, it is first necessary to review the structure of the military units that formed the defence forces manning the Forts. In 1859 Victoria was gripped by sudden interest in the military which led to the formation of the Volunteer Forces (Marmion 2003: 39-43). Volunteers were soldiers who served part time in an unpaid capacity. They were drawn largely from the town's population of fishermen and government workers, and included the Health and Customs Officers and their boat crews, the Lighthouse Superintendent and six assistants, the postmaster, the Telegraph Master, the Signaller and the West Channel Lightship crew (Perry 1973:38-9). In 1860, the Queenscliff Volunteers joined the Victorian Volunteer Artillery Regiment to avoid infantry training suggested by Scratchley (1860:22) to repel land based forces (Perry 1973:39). By 1861, members of the Queenscliff Volunteer Artillery were required by rules/regulations to attend monthly drills, and financial penalties were imposed on those who failed to attend (Macarthur et al. 1859b; VGG 11/10/1859; Pitt 1862:7). The early Volunteer Force was plagued by poor discipline and infighting, and the situation was not rectified until 1863, when it was restructured. A number of improvements were made including the testing of Volunteers for efficiency as soldiers, which led to the exclusion of some former Volunteers from the new force (Marmion 2003:54). In 1883, the Volunteer Force was disbanded and replaced with a Militia Force. The Militia soldiers were paid for their part time service, but were also governed by military law. A new permanent artillery garrison was also stationed at the Heads Forts, and all were placed

under the command of Col. Lemarchand, a retired officer from the Royal Bengal Artillery (Perry 1973:43). Most of the permanent personnel were elite troops from outside the area, who commanded the Militia during defence practices and annual training encampments (O'Neill 1988:49). Monthly live fire gunnery practice was undertaken from at least the 1880s-1908, which restricted the use of large tracts of sea in front of the fortresses (e.g. QS 29/3/1890, 16/5/1891, 10/12/1892, 3/2/1894, 22/8/1908 - see Figure 5.14), as did areas of submarine mining (QS 29/3/1890), and rifle range practice (see Appendix C-4).

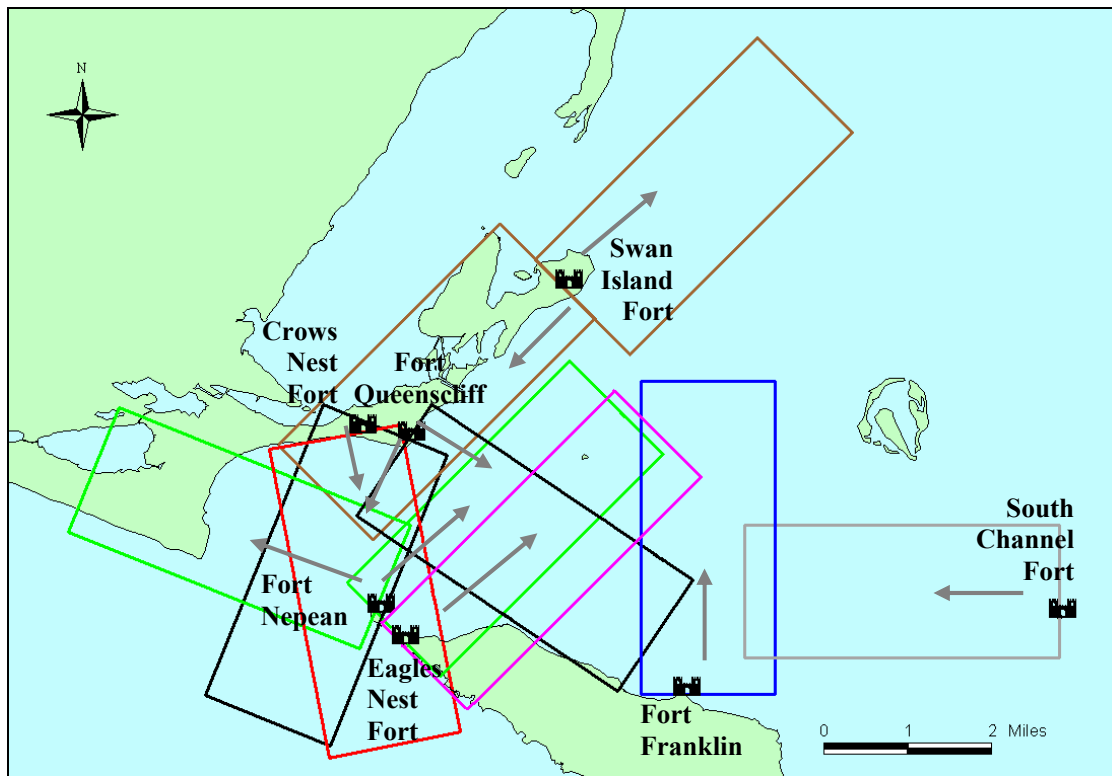


Figure 5. 14: Firing range exclusion areas in 1894.

An examination of the Nominal Rolls of staff at the Forts revealed very few of the former Queenscliff Volunteers were included in the Militia (a ratio of approximately 1 in 500 - Marmion In Prep), which somewhat excluded the local population from many of the military places and activities in which they had previously had access to. An outline of the structure of the Queenscliff Volunteer defences is contained in Appendix C-5 and a more extensive consideration of the volunteer forces has already been presented by Marmion (2003).

After Federation, these groups became the Royal Australian Engineers, and the Royal Australian Garrison Artillery, which were both groups of professional soldiers, and the administration of all military establishments was assumed by the Federal Government (O'Neill 1988:52).

The moral well-being of the military forces also became a point of concern. A soft drink factory began operating inside the fort from c.1896 to the early 1930s. Lemonade and soda water were bottled in distinctive in marble topped bottles embossed with an exploding hand grenade (known as a Bombardier bottle) and ginger beer in stoneware bottles, which were sold at the Fort canteen. The factory was established in an attempt to provide alternative beverages to alcohol and to encourage a more sober lifestyle. The drinks were manufactured for the exclusive use of the military, and hence were relatively unknown amongst the local Queenscliff population (Tate 1982:119,143; Arnold 1990:168).

3) Defence Landscape Archaeological Signatures

A) Forts, Batteries and Associated Infrastructure

As made clear from the discussion above, defence has played a large role in the shaping of the Port Phillip landscapes, both physically and cognitively. Archaeological signs of the military presence in the area were enormous and widespread, and in hindsight were worthy of their own dedicated study. These sites were overwhelmingly demonstrated throughout the area and were analysed to produce a characterisation of individual site type evolution over time. For the sake of brevity only a summary of the more significant observations is presented here. A detailed consideration of the archaeological signatures associated with all these site types is included in Appendix C-6 along with an overview table of sites type characterisations in Appendix C-7. The main types of archaeological sites within the study area associated with the military were:

1. Fortresses
2. Batteries
3. Magazines, Tunnels And Other Infrastructure
4. Direction Range Finding Stations/ Battery Observation Post
5. Enemy Detection Systems: Searchlights, Engine Houses and Experimental Sensors
6. Mines, Minefields and Associated Equipment
7. Artillery, Ranges and Other Signatures
8. Shipwrecks and Naval Vessels

9. Transport Networks: Road and Rail
10. Piers, Jetties and Docks
11. Naval Anchorages
12. Communications and cables
13. Personal Landscapes and Memorials

The most obvious signatures of the defence landscape were the robust frontline features normally associated with the military presence; i.e. fortresses, batteries and magazines, searchlights and observation posts. These sites were generally found clustered together, and the presence of one of these sites was usually indicative of the existence of other site types close by. More importantly, the larger robust military bases demonstrated the installation and subsequent removal/abandonment of these technological developments into and out of the landscape, both spatially and temporally. It was evident that over time the location of defensive batteries migrated from their original proximity close the central seat of power, to become increasingly distant in response to increases in ordnance and other firepower technology. Forts and batteries were usually preferentially located in the highest elevated areas; a generalised observation that proved accurate for relocating other archaeological defence sites locally (and at other defence sites around the country and internationally).

These sites were also evident through much more subtle archaeological signatures which have previously been scantily documented. The use of introduced (though often indigenous) vegetation at these sites was also an understated indicator of their presence (also through analysis of foliage antiquity), along with the use of introduced thorned species (such as boxthorn) as natural inhibitive forms of barbed wire. The introduction of the threat of aerial warfare to the area in 1942 led to new approaches to camouflage of battery sites, whereby tonnes of leather off-cuts from shoe factories were spread around pathways on the dunes of the Crows Nest Battery to disguise their location from aerial surveillance [LB], and are still evident in great densities around that site. Furthermore, large black carbon rods often indicated the presence of carbon arc searchlights used during WWII (Honoury Editor 1989:8 - Figure 5.16). These sites now comprise unexpected but readily legible archaeological signatures.

Other unexpected type of military sites included transportation networks used for both local (Swan Island Tramway) and the intra-colonial railway station/line (which was installed as a military railway). These sites provided an overlap of interrelationships within the landscape

where the military facilitated community transport networks both within and without the local area. This latter installation was particularly important for the local community as its installation had marked later effects on the tourism and fishing industries through its provision of community transport to and from the area.

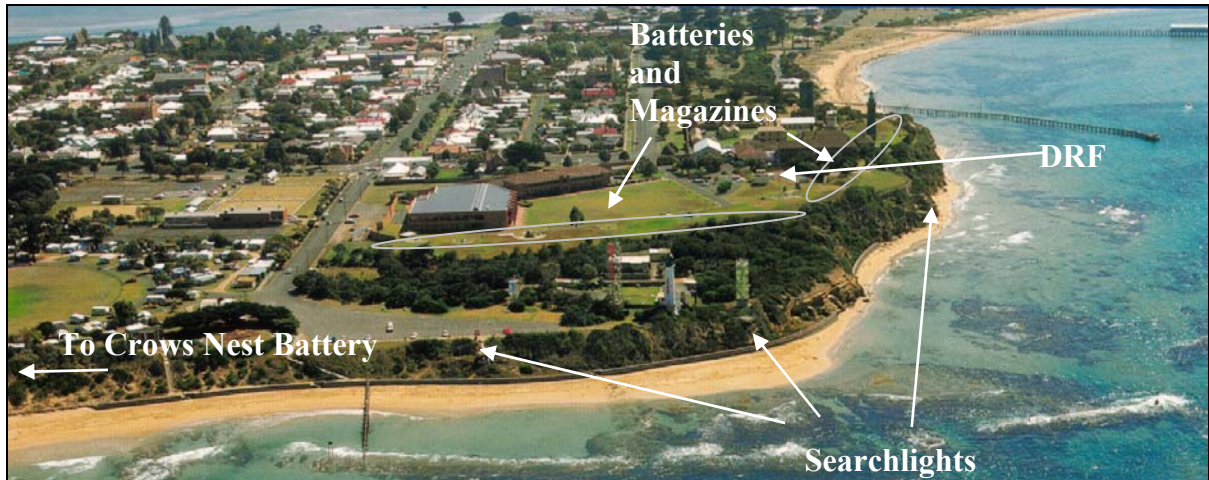


Figure 5. 15: Fort Queenscliff from south (Photo Postcard: Neil Cutts, Rose Stereograph Co., Mt Waverly).



Figure 5. 16: Unused searchlight carbon arc rods (FQ Collection).

It is notable that many previously undocumented types of military sites were also discovered in the littoral and underwater zones that directly noted the military presence, and these are discussed in further detail here.

B) Firing Ranges, Gas Check Plates and Ammunition Dumps

Several divers [CP; DL; PF] reported the discovery of an arc of scattered bronze expansion cups around the Swan Island and Queenscliff Forts, and at Popes Eye. Gas check plates/plugs (also known as plates expansion cups/ disks) were seated between the explosives charge and the projectile to maximise the explosive force with a more effective seal by retarding the loss of gas that escaped past the shell in the bore. They also retarded erosion of the gun bore, facilitated greater range and accuracy, and later aided rotating shells in rifled guns (Patterson 1985:7; Hawkins 1888: 152, 155). Ferrier's collection includes over 24 gas-check plates of two distinct types dating from c1860-1880 [ME] (Figure 5.17 and 5.18). Many of these robust bronze artefacts showed obvious signs of distortion, and some were missing their centres as a result of the force of the explosion. Similar objects have also been discovered in front of forts at Warrnambool in Western Victoria [PR], and at Fort Gellibrand, Williamstown ([PT]; Duncan 2003a: 279).



Figure 5. 17: Gas check plates (Peter Ferrier Collection).



Figure 5. 18: Underside view of 80 pr gas check plate (Peter Ferrier Collection).

Other evidence of artillery practice included fuse detonation devices used to explode artillery shells [LM; PF]. Several types of fuses were identified in both the study area and adjacent zones (Figures 5.19 and 5.20). Cannon balls have also been discovered in this region and in Lonsdale Bight [DL; PF]. These types of artefacts are highly datable and diagnostic of the dates and types of guns used (see Cundill 1877; Hawkins 1888; and Appendix C-6 for further discussion). They further represent tangible evidence of the gun batteries, their range and size

of charges used, and the artefact scatter range compared favourably with known trajectory diagrams (Barrett n.d. [plan] - Figure 5.21).



Figure 5.19: Artillery shell fuse from WWII Torquay firing range (Lyall Mills Collection).



Figure 5.20: Shrapnel round percussion fuse (Peter Ferrier Collection).

Artillery practice and gunfire practice was also evident via craters and shrapnel debris that was located on local offshore islands (and one case – Swan Bay Howitzer – this was the only archaeological signature of the battery itself), and bullet heads/ shells and other damage were observed where reefs/wrecks were used as strafing targets [JA]. Similarly rifle ranges in several areas produced tangible evidence of not only the target butts and earthworks, but the range's extent and the types of guns used could also be derived from analysis of the bullets and distance of the butts from shore [CA; JA]. Other spent ammunition was found in association with former rifle ranges at in Swan Bay and Swan Island [CA; GW; LID], and similar observations have been made at Geelong and Williamstown [JA; PT]. See Appendix C-4 for further consideration of firing ranges in this area.

Artillery and rifle targets also presented potential archaeological signatures. Dod (1931:84) recorded that barrels were used as targets in the West Channel, which could be the source of anchors and piles of chain discovered there [CP; DL; PF], and targets were also towed behind military vessels in the 1930-40s [GW]. More subtle evidence of artillery might be found in the neighbouring house construction, where gaps were built into windows to stop them shattering during gunfire practice [GW].

Many ammunition dumps were identified in The Bay, and included various sized artillery shells, intact cases of WWII bullets with waxed wrapping paper, and mortar shells [CP; DL; HG; LM; MS; PF; SA; TA]. Mortar scatters have also been observed offshore from similar military sites

at Melbourne [PT]. These caches also inform of military recycling/ dumping practices (see below).

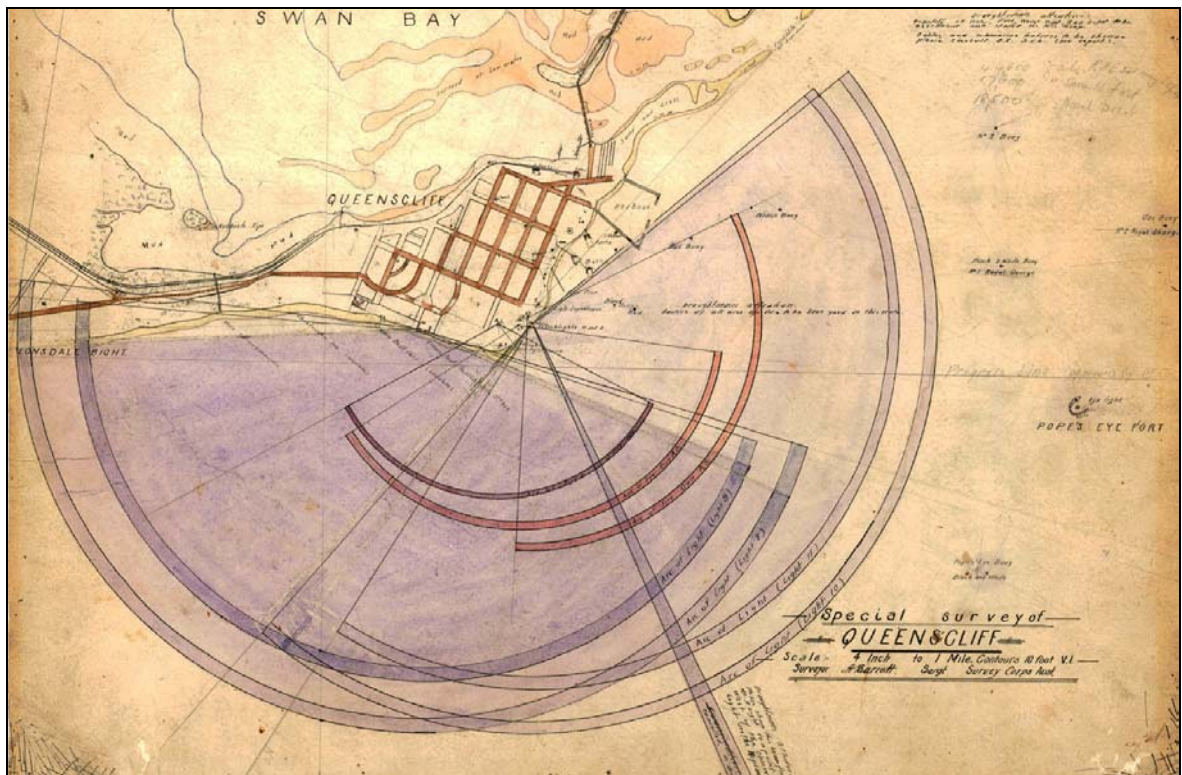


Figure 5. 21: Plan showing searchlight and gunfire trajectories (inner - red) and searchlight ranges (outer - blue) ranges of defence facilities at Queenscliff (Barret n.d. [plan], FQ Collection).

C) Mines and Minefields

The presence of submarine mining was also detected in the study area, both above and below water. Many facilities associated with transport, delivery and storage of mines were sighted at Swan Island, including extant storage sheds, pier remains and hulks used as piers.

The importance of the contextual setting of isolated military finds was succinctly demonstrated when analysing several concentrated deposits of underwater mines [PF]. Although initially indicative of a minefield, their proximity to former mine assembly sheds were, upon further reflection, demonstrated discard behaviour associated with casing disposal and their use as erosion control devices (Anon 1993b). Minefields were by design set across shipping channels, and were often evident by or associated with electrical detonation cables [CP; MS]. Stranding sites may also be another indicator of the presence of submarine minefields, especially where shipping may have been trying to avoid mined areas by navigating close to the edges of the

channels [DL; PF], but this observation could not be adequately tested during this study. These minefields not only formed an exclusion zone for vessels, but also actively represented a dangerous area to be avoided by shipping. It was not possible to ascertain how long it was before the mines were removed, but mines were still being reported to archaeologists in the 1980s/90s [MS], and the significant risk of remnant mines led to the implementation of a remote survey of the South Channel prior to a major channel deepening project in 2006.

The presence of mine detonation mechanisms (i.e. spikes from the shells) may indicate areas of minelaying/detonation practice, but could equally be associated with channel blasting operations in The Rip in the 1960s [PF], when the explosives from outdated mines were removed and used for (blasting associated with) channel deepening (Topp 1930). These practices also produced surplus mine cases which were archaeologically evident in their use as incinerators throughout the district, and as erosion control devices along the foreshore (Anon. 1993b:4, 5, 20), which are more indicative of the presence of a mine assembly plant/ depot than a minefield.

Furthermore, with the introduction of electrically powered telegraph technology and electrical circuitry, communications cables became a part of the defence landscape and several examples were discovered both underwater and on land. These facilities provided previously unexplored indications of the presence/location of battery and mine observation posts and command centres.

D) Innovative and Exploratory Technology

New experimental warfare technology was also evident that demonstrated the movement into the detection of previously “invisible” enemy. WWII saw the instigation of a new breed of site whose technology was hidden from both the potential enemy and the location population. These seemingly innocuous sites (concrete blockhouses and a dolphin structure) housed state of the art warfare, both above and below water in the form of an infrared detection beam and an induction loop to detect incoming ships and submarines respectively. These types of sites were elevated only slightly above the water, and were geographically placed to straddle major shipping confluences. They represented a new war strategy where a finding of a hidden enemy warranted a concealed detection system. Even though these infrared blockhouse structures were visible to the public the secretive nature of the internal installation often lead to widespread speculation as to its use ([CSp; JB] Nelsen 2000). No other archaeological relics were found

under the construction during inspections by the Victoria Archaeological Survey in the 1980s, suggesting that either the structure was unmanned or sporadically occupied [MS]. A similar sized structure at Port Melbourne which housed a degaussing range (to demagnetise ships – see Duncan 2003a: 259-60) was virtually unknown to the local population.

E) Shipwrecks and Deliberate Vessel Discard/Re-use

Several former Victorian Navy and Royal Australian Navy vessels and hulks were used for breakwaters or piers locally or outside the study region (*HMVS Lonsdale*, *Countess of Hopetoun*, *Childers*, *Cerberus*, and the *J3* and *J7* Submarines). Several other vessels were also purchased for similar purposes around the Swan Island Base. Numerous other military vessels were scuttled in the Ships Graveyard off Barwon Heads, including four *J Class* submarines. All these craft were normally stripped of all usable equipment prior to being hulked, which in itself demonstrates tangible differences between these and other types of shipwreck sites. The locality of these vessels so close to shore is a potent archaeological signature, as are the often subsequent changes in environmental coastline caused by their presence as they either act as (or in conjunction with) sand groynes, or encourage further erosion.

Far rarer are actual shipwrecks in this area and these include the *Isa* (a former powder hulk), and an unidentified vessel associated with the construction of Popes Eye Fort. Some shipwrecks have even taken on memorial status (e.g. *HMAS Goorangai*). It was notable that many of these vessels evidenced shallow draughts, which demonstrated the need for their manoeuvrability within the shallow waters of the Bay, a factor that was reaffirmed by the limited maximum depths at several local military piers and docks (see below). Strandings of military cargo vessels were also discovered at Pt Nepean, where the substantial cargo of bricks destined for the Pt Nepean Batteries (but which had been thrown overboard to refloat the vessel *Trusty*) were evident underwater.

F) Piers

Military piers were generally short as the vessels using them were of shallow draught to enable their rapid and unrestricted use of the sea terrain of the bay, and were usually serviced by a tramway and sometimes a crane. The military also made extensive use of former defence vessel hulks as piers, especially around Swan Island, and all the military piers examined demonstrated

some form of small gauge tramway, probably to transport ammunition. These sites often evidence substantial underwater archaeological deposits including broken earthenware ceramics, aerated water bottles [SA], and other personal paraphernalia, electrical batteries (for pier lights), insulators, and ammunitions casings. However, no alcoholic bottles were observed.

G) Naval Anchorages

Two naval anchorage areas were located close to Swan Island. A large anchorage for the *Gannet*, *Commissioner* and *Victoria* was located approximately 1 km offshore from Swan Point (A11, c.1889; Anon. 1889; HCW 1889 [updated 1938] [plans]). Many bottles (predominantly aerated water, torpedo and lemonade bottles from Melbourne and Geelong) were found in this naval anchorage area by local divers. The deposits were concentrated in a 360° circle around a mooring anchor and chain which formerly served as a special mooring buoy [DL; PF]. The absence of any form of ceramic, particularly plates of Naval or other origins, in this area may indicate that although naval personnel were stationed aboard vessels in this area, their meals were served ashore. The torpedo boat mooring area used by the *Childers*, *Lonsdale* and *Nepean* was marked by a post which is still evident underwater, with black alcoholic and beer bottles dating to the 1850s-90s of predominantly English manufacturers [PF]. The concentration of alcoholic bottles in this area would suggest that these vessels were out of sight of the commanders ashore, and that these moorings were more permanent and not used only during war maneuvers when discipline would have been closely monitored. Given the abundance of many other naval moorings which were repeatedly used as part of the Easter War Games and for the planned Heads defence networks, substantial deposits are also expected in those areas, but were not examined as part of this study.

H) Military Recycling and Discard Practices

The abundance of abandoned and obviously dumped defence hardware highlights several philosophic attitudes resident in the military regime.

I) Recycling

Recycling of defence hardware and sites was a major component of the military landscape which was evident at many different levels. This is observable in the disposal of obsolete

(though economically valuable) hardware from Imperial Forces, such as naval vessels (e.g. *HMVS Victoria*, *Nelson*, *J Class Submarines* etc), redundant guns and submarine mines, and in itself is indicative of post conflict abandonment processes where surplus materials are dumped to Colonial governments. This process has at least two purposes, as it firstly attempts to placate the dependent Colony's needs through minimal financial outlay, and secondly often is economically sound as it negates the inherent costs associated with the necessary disposal of the equipment to the host nation. This potentially leads to a skewed archaeological representation of redundant technology in the patronised nation.

It is notable that many, often outdated, defence sites were subsequently reused to install later technology such as where twentieth century guns were inserted into nineteenth century gun emplacements). This is particularly evident in the constant installation of guns and other hardware that were often repositioned and transferred around the landscape with changes in defence policy, demonstrating the continuing strategic value of these sites. These observations have obvious implications for the archaeological record, especially where new technology was based in older structural surrounds and then removed, as initial inferences would suggest that we are presented with a much older abandoned site, rather than one that has experienced a continuing constant use

One almost universal observation at most battery sites was that the guns had been removed. This absence is significant, as it demonstrates not only the high practical (and strategic) value placed on these items (which were often exported to other locations as needed) and their economic importance as financially valuable commodities, but also their great cognitive value, as many were removed as post conflict war memorials and for celebrations of Australian Federation (see Billet 1994).

It appears that recycling was a widespread practice within the military. Aside from demonstrating the former presence of the submarine mining depot, decommissioned mine cases were often re-used as incinerators were evident throughout the Bellarine Peninsula, and were also used as seawall defences along Swan Island and the actual explosives from the mines were recycled for use in several Channel Deepening projects at The Heads. Similarly, the former Swan Island Tramway rails were also used as seawall defences in this area (Coroneos 2006).

This observation is also highlighted in the post conflict abandonment practices associated with naval defence vessels, many of which were subsequently used as piers, generators, groynes or breakwaters, along with the use of other purchased hulks for similar purposes. In these cases those features have ceased to function as ships, but have taken on new meanings that are related to their new use (i.e. they are now piers and groynes, and not shipwrecks (the latter of which will be later demonstrated to have very different meanings to the community). For further discussion of issues in shipwreck abandonment refer to Richards (2002).

II) Dumping

Where the military did not recycle equipment, they were known to dispose of materials by dumping them into the water. The discovery of several ammunition dumps of potentially valuable ammunition shells and mine cases, crimped knuckle dusters (to make them unusable), submarine hulls and other recorded instances of discarding valuable military equipment (e.g. planes, trucks and other vehicles post WWII) outside the study area give further insights into economic protective strategies employed by the military during post conflict periods. In this strategy valuable war-time equipment was preferentially dumped rather than risk queering peacetime industrial economies through the oversupply of surplus stock.

Clearly the defence forces ranked their hardware according to a hierarchy of values, where strategic, economic and memorial worth were placed on various items at different times, which led to either their recycling or eventual dumping, dependent on what significance was assigned to them. This was played out in a continual interplay between the acquisition of cutting edge technology and the dumping of surplus/ redundant stock, often into the landscapes of others.

I) Social Military Landscapes:

I) Bottle Scatters

Other archaeological evidence of defence occupation was less obvious and relied on observations gleaned from a number of divers. The presence of the characteristic “Bombardier” Victorian Artillery soda water bottles (Figure 5.22) were noted offshore at many fortification sites, especially at the South Channel, Swan Island and Pt Nepean Forts [CP; DL; LID; PF; SA]. Arnold (1990:168) observed that these bottles were only manufactured for use at the forts, and it therefore appears that these bottle types may indicate the presence of military sites in this area.



Figure 5. 22: Victorian Artillery “Bombardier” soda water bottle. Scale = 20cm (Peter Ferrier Collection).

There were often many other non-alcoholic bottles (glass and stoneware) and some bottles known as “blacks” (which were generally alcoholic) were found in these areas, and near the Swan Island Submarine, and the southern end of the West Channel (near a naval anchorage). Their concentrations suggest that these were official rubbish dumping areas [CP; DL; PF; SA]. Most of the soda water glassware originates from Melbourne and Geelong [PF; SA], particularly in the area in front of the Swan Island Fort to the *J3* submarine. Another dump over the reef ledge at Bell Rock (Shortland’s Bluff) appears to be discard from the Fort, and varies slightly from the other sites due to its inclusion of ceramics and various brass pieces (which were unspecified by the informant).

Although the military provided their forces with aerated water, it appears that alcohol was still consumed in many areas. Interviews with many divers [CP; DL; PF; SA] indicated that there are a number of isolated finds of alcoholic bottles on the periphery of military establishments. These finds were within throwing distance of the shore or jetty extremities (Pt Nepean, South Channel, Crows Nest and Swan Island Forts), and may indicate surreptitious drinking by military personnel in fringe areas where the evidence was easily disguised. Similar deposits have been located in isolated areas of the Fort Queenscliff moat:

...When the gardeners used to clean the moats out from time to time, I would follow behind them on the tractor, and we would sometimes find alcohol bottles and other artefacts from Queen Victoria’s time, you know before Federation. [SH]

These observations provided tangible evidence of social norms that were extensively known locally throughout the township [BMn; CS; HM; PF; SH].

II) Memorials

Many defence memorials are scattered around the peninsula. Of particular note are those at Shortland's Bluff (Figure 5.23) which commemorated seamen lost in many conflicts, along with a major maritime accident in The Bay (*HMAS Goorangi*) where many local defence personnel were lost; and a WWI war memorial at Pt Lonsdale, where an annual service is still held (QH Nov. 2003:1). Other less obvious memorials were the avenue of trees (known as the Avenue of Honour) on the narrow neck road into Queenscliff where each tree was installed for a deceased soldier (Figure 5.24), and the RSL hall near the Fort Queenscliff. These sites provided important foci for grief whilst also acting as tangible reinforcements of identity (and hence belonging) within the general community.



Figure 5. 23: Shortland's Bluff defence memorials



Figure 5. 24: Avenue of Honour, Queenscliff

An overview of archaeological remnants of defence sites are shown in Figure 5.25-5.29.

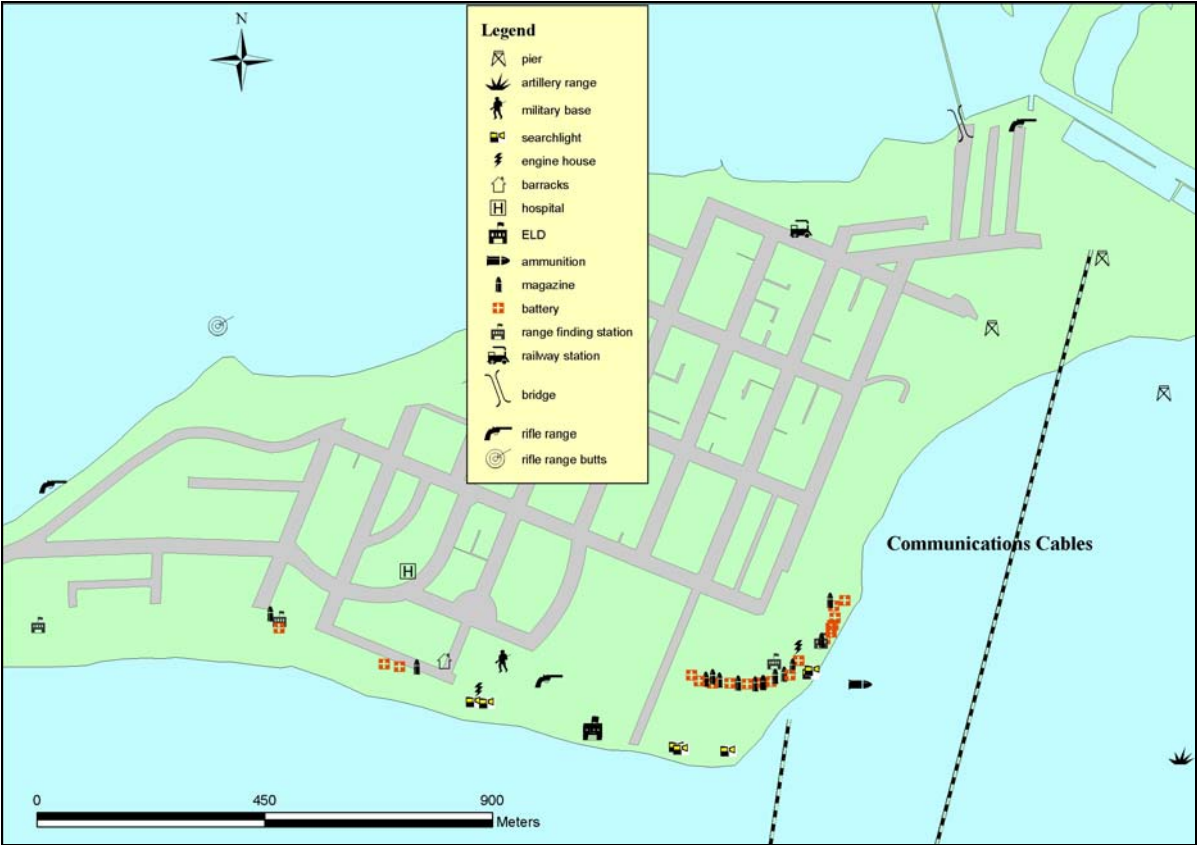


Figure 5. 25: Defence sites at Queenscliff.

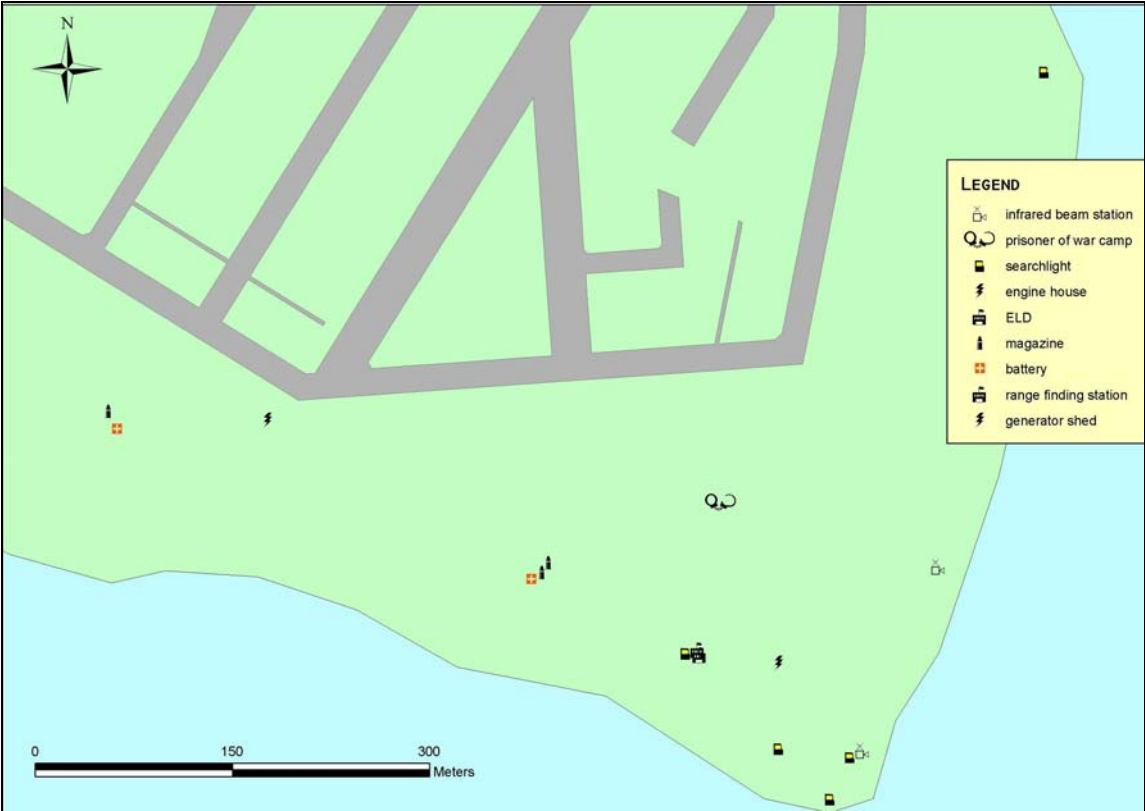


Figure 5. 26: Defence sites at Pt Lonsdale

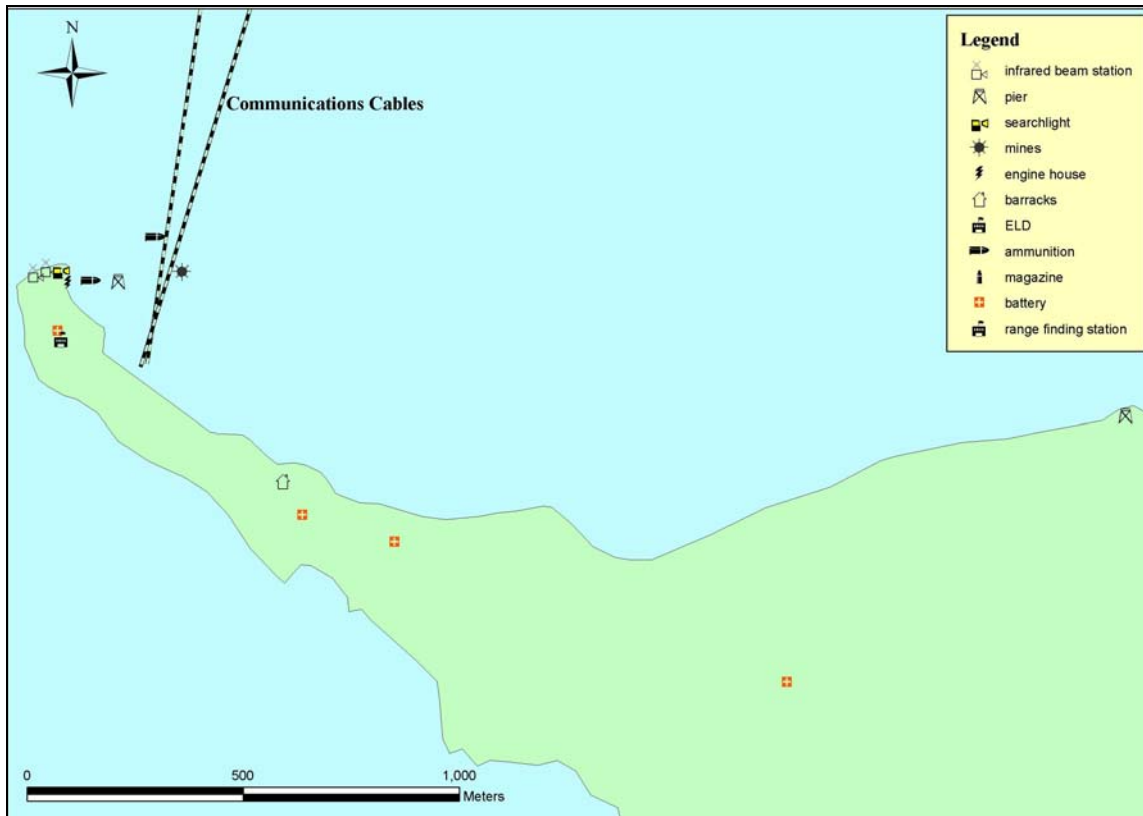


Figure 5. 27: Defence sites at Pt Nepean

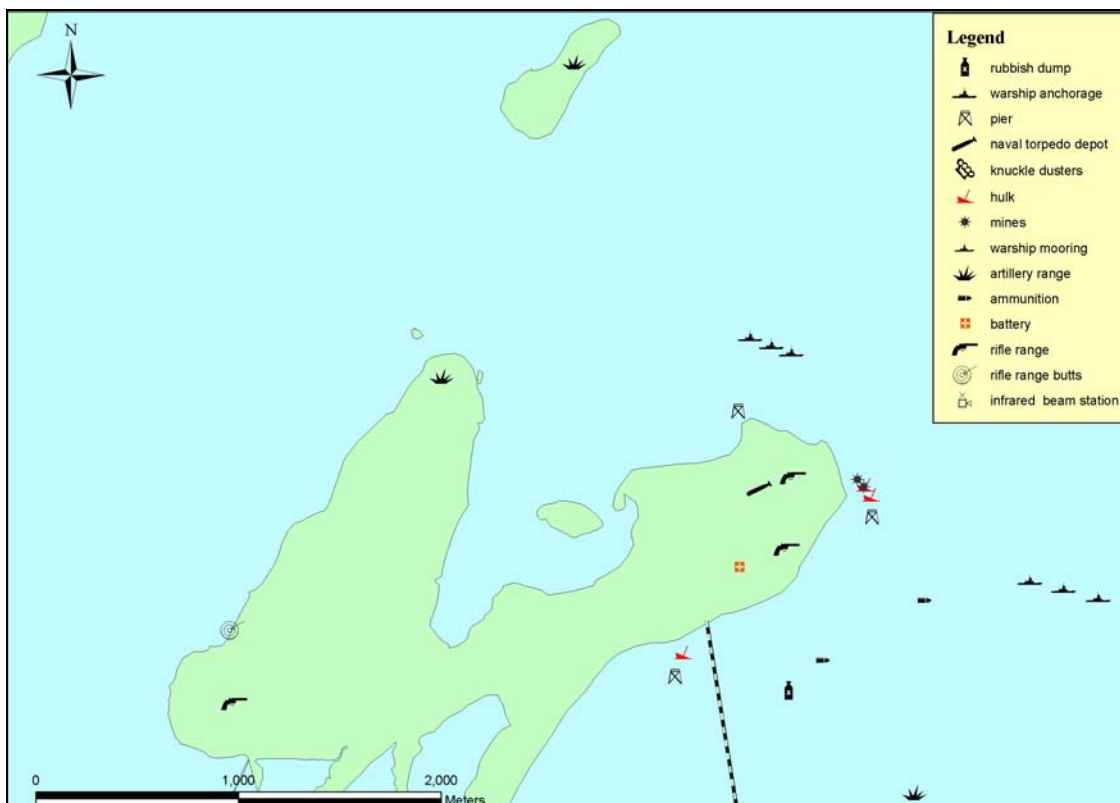


Figure 5. 28: Defence sites at Swan and Duck Islands.

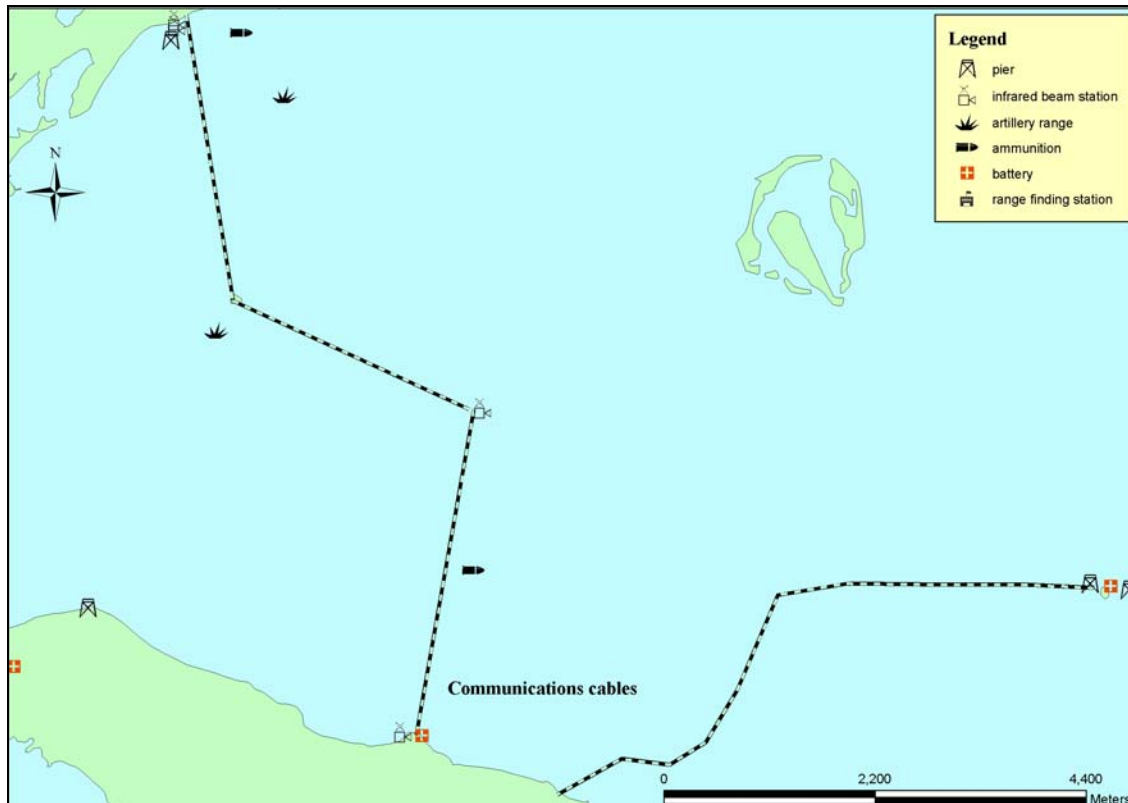


Figure 5. 29: Defence sites in southern Port Phillip Bay.

4) Cognitive Landscapes

A) Technological Advancement and Reactionary Behaviour as a Military Landscape Determinant

It can be seen from the abbreviated military history of the area presented above, that technological advancements played a vital role in the determination of military landscape locations. In particular the advances in gun technology and the associated increases in firing range have shaped military fortification placement around The Bay since the inception of the colony. The restricted firing trajectories of early guns led to the initial placement batteries close to the colony's heart of Melbourne, but meant the area needed additional protection due to the open geography of Hobson's Bay. This problem was solved with the introduction of a progression of individual blockships, to guard the area not covered by the guns at Pt Gellibrand and Sandridge.

The introduction of steam powered ironclad ships in America led to the calls for that technology to be introduced in Victoria, and the ironclad *Cerberus* was ordered from Britain. In the

interim, innovations such as the gun raft *Elder* were introduced to supplement the defences until the *Cerberus* could be brought out from England in 1871. Even though developments in Armstrong and other gun types guns led to greater firing distances, delays in obtaining suitable guns, along with subsequent questioning of their safety record, led to batteries being further developed at Hobson's Bay in preference to The Heads (Pasley 1865a:62).

Even when the colony obtained its own ironclad, it now also had to defend against ironclad technology, which was relatively immune to shore-based gunfire of the time. This led to the adoption of the torpedo minefields in 1877 to defend the channel approaches to Port Phillip (Figure 5.30). When Armstrong RML guns again increased in range and armour piercing pointed projectiles (Palliser Shot in 1863) led to the vulnerability of ironclads, they were successfully applied at Victorian coastal batteries (Jervois 1879; Kitson 1987:5.4; Nicholls 1988:180-1). From 1878 onwards fortresses were seriously considered for The Heads region, and the guns at Queenscliff were replaced with these larger gun types (Figure 5.92). Work also began on the construction of a network of new forts at The Heads in 1879, which included revolutionary new artificial island forts (which had recently been used in England) designed to stop heavy cruisers (Kitson 1987:6.1), and were effective as they could bring guns closer to the battlefield but were not subject to sinking (as in warships). The installation of the railway to Queenscliff allowed troops to be ferried to those positions within an hour of the alarm being raised. By 1882 further innovative designs to fort construction which focused on camouflage and the use of earthen mounds to deflect incoming rounds were introduced locally. These technological advancements were reflected in the new low profile batteries, sand parapets and the disappearing gun (the first prototype of 8" gun was commissioned for Victoria -Kitson 1987:4.5). Furthermore, the increased penetrative power of rounds led to bombproof covers on gun positions (e.g. disappearing gun covers) and associated pillboxes.

The use of torpedo minefields bred a new strategy where teams of mine clearance units would sweep an area in advance of warships (Kitson 1987:3.3). The invention of the Whitehead Torpedo in 1877 also led to renewed threats to ironclad technology, which were then faced with quick mobile torpedo boats that could easily attack shipping before fleeing. To counter these threats, in 1884 the Colony of Victoria purchased three torpedo boats, a torpedo launch and two new gunboats to chase down attacking craft. New Nordenfeldt machine guns were also installed at the South Channel Fort, and on some gunboats, as the large guns were considered insufficient to target these new faster craft. New searchlight technology was also introduced to

target any of these fast craft attempting a passage through the channels at South Channel Fort and Queenscliff by 1886 and later at all the other forts by 1892. Electrically operated minefields were introduced by 1888 to guard the channels.

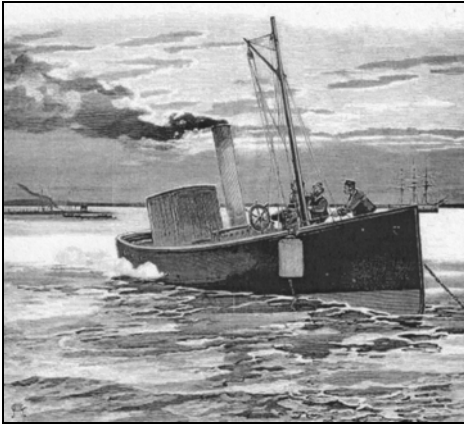


Figure 5. 30: “The *Miner* laying torpedoes” (Sleap, 13/5/1885, IAN, SLV Collection).

The introduction of the new 4.7” quick-firing (QF) Armstrong guns at South Channel Fort in 1889 was a world first and enabled more rapid concentrated fire over a larger area (Kitson 1987:4.7). This development further reduced the need for concentrated fortresses in the area, and was quickly installed in other batteries by 1893 (Fort Franklin). As time went on, larger guns were introduced to even higher fortresses to provide coverage both inside and outside The Bay in 1885 (i.e. Eagles Nest), and some fortresses were made redundant as gunfire trajectory ranges increased from other forts (e.g. Popes Eye 1894; Swan Island and South Channel Forts 1909).

By 1908, the focus of defence had moved to the establishment of a Navy; with the Royal Australian Navy formed in 1911. This led to concentration of defences at the very extremities of The Heads, and in seaborne power. The potential battlefield then began to move further offshore, resulting in the gradual dismantling of coastal fortifications (besides those at Pt Lonsdale, Pt Nepean and Queenscliff) and The Bay defence fleet between 1911-late 1930s.

World War II saw the partial reinstatement of defence facilities at The Heads, but the focus now had moved to offshore defence from German raiders, submarines and minefields, with onshore defence directed mainly from a landing attack, which was to be countered by tank traps and barbed wire entanglements in addition to the artillery from the forts. However, the attack on Pearl Harbour in 1941 saw the potential of air power for long distance attacks. Anti-aircraft guns were installed in the local football field (see Figure 6.37), along with two 4.7” guns at Crows Nest Battery to combat

this threat, along with new guns at Fort Pearce, and Cheviot Hill. The comparative differences in gun technology at Queenscliff since 1860 are shown in Figures 5.31 -5.34, and the changes in defence landscapes as gunnery ranges increase over time are demonstrated in Figure 5.35. A summary of all the forts in Port Phillip is outlined in Appendix C-8.

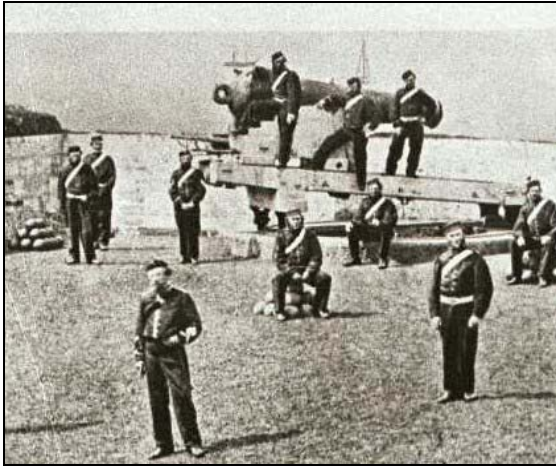


Figure 5. 31: Bluff Three 68 pr Gun Battery in 1866 (Photo PH2, QHS Collection).

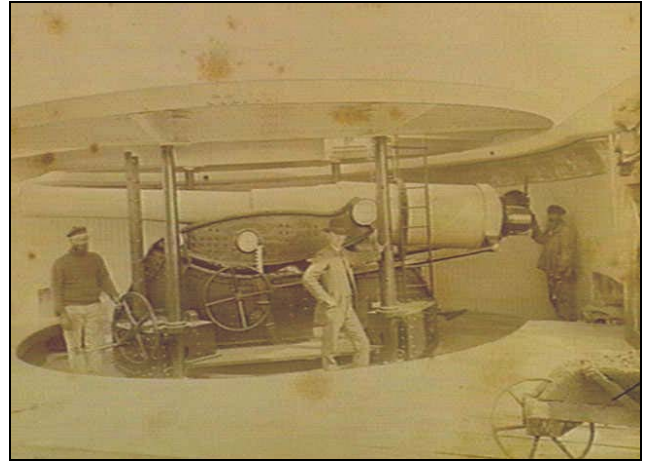


Figure 5. 32: 8" HP BL Disappearing Gun at South Channel Fort (Photo: Kirton, 1892, SLV Collection).

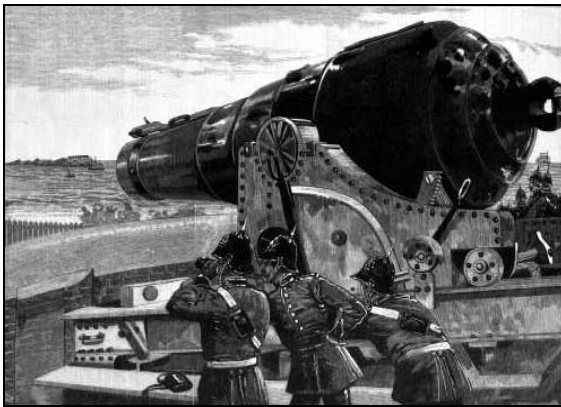


Figure 5. 33: 9" Gun at Queenscliff (AS, 4/5/1885, SLV Collection).



Figure 5. 34: Mark VII 6" Gun at Fort Queenscliff (Image an007181, SLV Collection).

The effects of changes in gun technology on the military landscape between 1877 and 1908 can be compared to the changes due to the introduction of aircraft from 1914-1945 (Kitson 1987: 2.2). The removal of two Mark VII guns from Queenscliff to Pt Lonsdale reflected the increased threat posed from long range offshore guns mounted on warships. Furthermore, the advances in military technology (such as submarine warfare) saw the development of additional new

technologies which were tested in The Bay during this time including the infra-red beam and indicator loop to detect passing submarines or mines.

Technological advances still continue to shape the defence landscape of The Bay and Victoria, and include the British Intelligence and Australian Security and Intelligence Organisation listening posts, the latter of which is still stationed at Swan Island [LID].

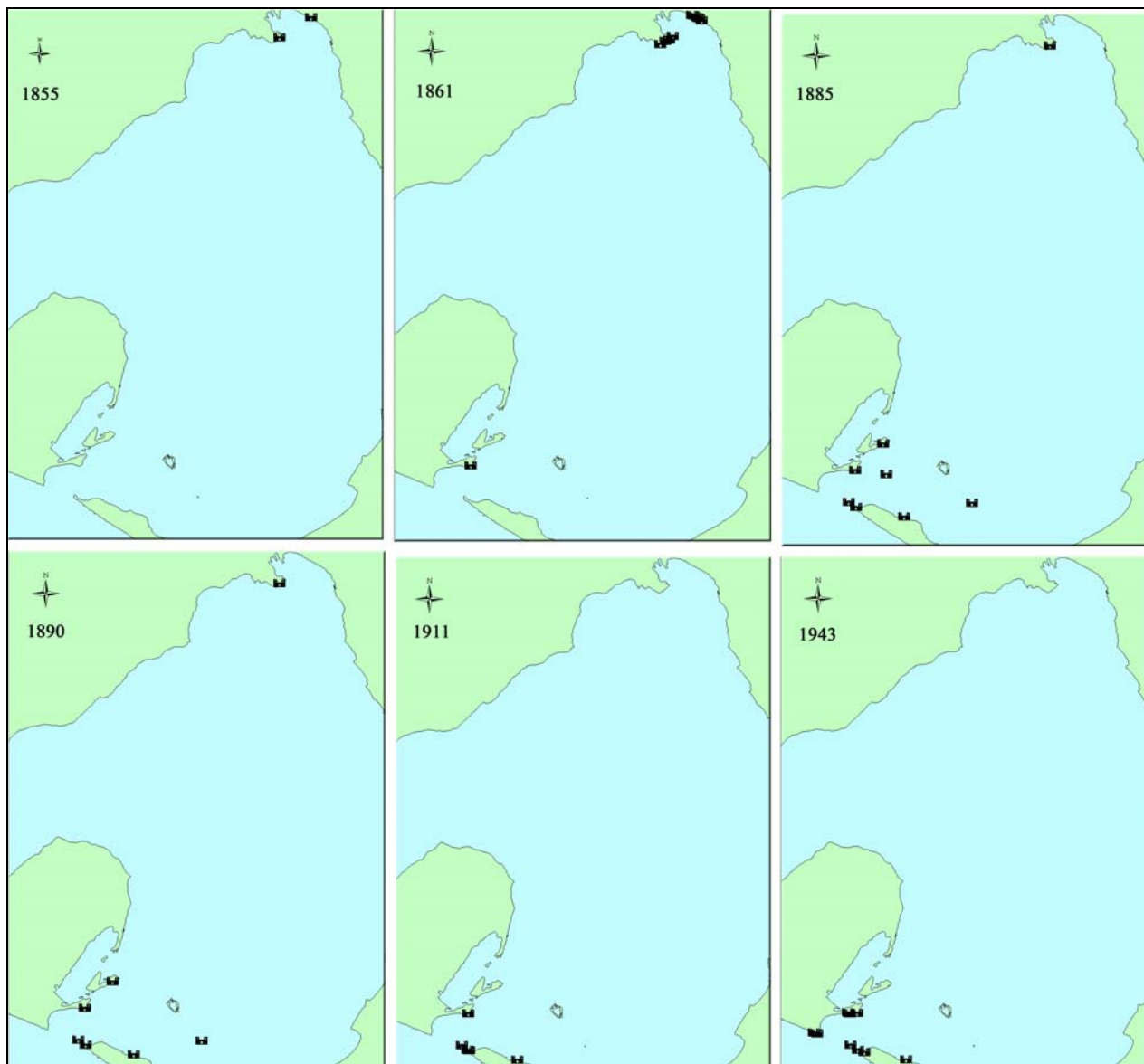


Figure 5. 35: Changing defence landscapes of Port Phillip Bay.

B) Frontier Defence Landscapes and War Strategies

The frontier nature of the Victorian colony, demonstrated by its existence on the periphery of both the British Empire and the Australian colonies during its early development, generated the need to establish its own defence independent from the motherland. The stationing of the defence networks at Hobson's Bay appears originally to have been undertaken due to technological limitations in artillery firepower, but also to install a sense of law and order in the often raucous colony. The transferral of the British Army Military headquarters to Melbourne in 1854 may have reflected early administrative concerns of an armed insurrection, particularly after the period associated with the Eureka Stockade uprising in that same year, and reveals strategies that kept the military under the scrutiny of the government closer to Melbourne. Crime was rife in Melbourne at the time, and gold transport vessels were often robbed while at anchor in Hobson's Bay, while concerns were also expressed about the arrival of ex-convicts in the colony (Sutherland 1888a:136,333; Draper 1900:1-6). It was therefore logical to base military sources close to the metropolis where they were both needed and could be controlled, and this might also explain the late installation of the military railway to Queenscliff.

The later movement of the defences away from Melbourne may also reflect changing attitudes to, and increasing confidence in the defence forces (and their loyalty to the Crown) and the presence of more localised police forces. The progression of defence installations away from the central seat of power over time was archaeologically evident by the spatial distribution of the forts over time (see Figure 5.35). This is an important observation, as when combined with the archaeological observations of defence installation characterisations, it may be possible to identify probable central power bases in frontier scenarios.

It has been demonstrated above that Victoria frequently led the way in the introduction of new military technology, not only in the Australian colonies, but often in the world. Victorian military strategies regularly introduced state-of-the-art military technology that had only recently been invented or trialled. The gun barges at Hobson's Bay, use of ironclad steam vessels, the continued introduction of new artillery technology, torpedoes and electric minefields, Whitehead torpedoes and torpedo boats, Nordenfeldt machine guns and searchlights all constituted some of the earliest adoption of these technologies outside of Britain. Furthermore, in some cases the Victorian colony actually instituted the prototypes of

several types of guns (e.g. the Zalinski Dynamite Gun – Billet 1996:84-87) and ammunition types (e.g. studless palliser shot - Hawkins 1888:251) or were the first in the world to adopt their use.

Although the first widespread use of electrical submarine minefield technology was first introduced in the United States and Canada and gradually developed in the 1860s and 70s (Perry 1965), it was not used outside of England in other colonies until 1873. However, this technology was being deployed at Hobson's Bay from 1867 and at The Heads from 1879 onwards (Kitson 1987:6.2, 7.2). Additionally, the installation of the 4.7" gun at the South Channel fort pre-dated the installation of these types of guns in coastal batteries in England by a year. The South Channel Fort represented a unique example of the incorporation of several new military technologies, and was the first example of a low profile sand parapet island fort in the world. In particular the development of the prototype of the 8" disappearing gun by Victoria for use in coastal batteries, which had been rejected by the British War Office as too cumbersome, led to its widespread use and other modifications in size throughout the world after it was successfully used at the South Channel Fort (Kitson 1987:4.5, 6.1). Furthermore, the *HMVS Cerberus*, now considered one of the forerunners to the modern armoured battleship (Herd 1986:2), was commissioned by Victoria in 1865 (Verdon 1865:41-2; Sutherland 1888a:461).

Despite several accidents during the use of this new technology (e.g. the explosion of the 6" BL HP gun at Queenscliff - Brownhill, 1990:643), these were considered par for the course for bypassing the official testing procedures normally undertaken by the Imperial military authorities:

The simple cause of the accident was that none of the officers knew that a tube could be exploded by slamming the breech block...In their desire to obtain the latest and best armament, the Colony had purchased guns that had not passed the experimental stage with Imperial military authorities. Consequently, when the guns arrived here...the then officer commanding artillery had to draw up a drill for working and firing them (Age 18/5/1891, as cited in Perry 1973:45)

It can be seen from the above discussion that although Victoria was a veritable frontier to the British Empire and the Australian Colonies, it has been demonstrated that in the mid to late nineteenth century it was at the forefront of military technology. The use of these new technological developments and defence tactics demonstrates that this remote colony was a depository, instigator and user of new innovative defence developments, often long before

they were effectively tested and tried by the more conservative British Crown governments. The use of these new innovations indicates a willingness by the Colonial government to adopt unproven or insufficiently tested hardware and/or to circumvent established testing procedures (possibly in an attempt to reduce defence costs or reduce risks of invasion from more sophisticated military powers) than more centralised powers who were already better protected by their established conventional defences.

This has important ramifications for the study of defence networks worldwide, as new technology and innovative ideas may first be evident on the fringes of society rather than within the central metropolis as would be expected. This suggests that new military technology is more likely to be used on a frontier landscape, where the greater risk of invasion necessitates more widespread adoption of new technology to reduce those hazards. Although this observation has not been further explored here, initial observations of other frontier colonies (e.g. introduction of alternative ironclad technology, submarine and torpedo warfare during the Civil War in America - see Roscoe and Freeman 1956; Scharf 1996; Murphy 1998) suggest that there may be analogous trends elsewhere. Therefore it is possible that the archaeological discovery of new defence technology (and/or indicators of military hardware mishaps) may in itself signal the edge of a frontier landscape archaeologically.

Furthermore, although it is noted that frontier colonies are also more likely to inherit obsolete or old military hardware from Imperial powers (e.g. *HMCS Sir Harry Smith*, *HMS Nelson*, the *J* Class submarines, and obsolete guns), these discard behaviours will also be indicative of frontier behavioural defence strategies, and will probably be more indicative of post-conflict periods when excess military hardware is being discarded. These two conflicting situations present an interesting dichotomy, where state-of-the-art and redundant technology may exist side by side in frontier scenarios, and this dual occurrence may in itself be a frontier landscape indicator.

C) Episodic War Scares and Changing Attitudes to War

It is clear that the theatre of war has progressively moved further offshore over time as advances in warfare technology have taken place. This has led to a marked change in attitudes to defence over time. The importance of The Heads area as a strategic target was recognised very early on by Colonial newspapers:

Port Phillip Heads is becoming rather an interesting locality, from continuous arrival and departure of vessels, and it will of course become much more so, when the extra lighthouse is erected, the electric telegraph at work, to say nothing about the quarantine station. Of course, we shall have to erect two guardian fortresses, bristling with cannon, but no such item appears in the estimates. (GA 12/11/1852:2)

Paranoia was clearly a factor that influenced the development of the Port Phillip Bay defences. In the mid-to-late nineteenth century there was undoubtedly a state of panic in the colony regarding defence, and these were only heightened by the continual war scares which often local citizens to panic and in many cases arm themselves. Furthermore, news of every technological advance in military hardware brought trepidation to the community, who sorely felt their extreme isolation from the motherland. Several local volunteer forces were organised throughout the colony, which, under the guidance of appropriate officers, were largely responsible for defence until the 1880s when permanent troops were engaged.

Every key upgrade of the defence systems around Port Phillip and Queenscliff can be traced to either to war scares or advances in technology (Appendix C-9). The Russian scares of 1853-56, 1870, 1879, and 1885, along with the threat of war with America in 1861 all saw major periods of defence construction around The Bay. In particular, the late 1870s and 1880s saw a flurry of activity that bordered on panic. The railway was hurriedly constructed to Queenscliff to allow troops to be immediately despatched from Melbourne in an emergency. Dod (1931:94) recorded the activities at Fort Queenscliff in 1882 (see Figure 5.36):

Plans for the erection of the...brick wall which now encloses the fort, for digging the moat inside, and...the keep...were rushed along as if an enemy was expected to arrive at any moment. I can remember seeing Sir Peter Scratchley...tearing around with a small army of subordinates... putting as much energy into the work as if it were necessary to finish it in twenty four hours.

The desperation to finish the defence works were often echoed in local newspapers: “Time and tide waits for no one, and the proposed fort (at Popes Eye) must be gone on with at once” (QS 3/4/1886). Several papers indicated the perception that war with Russia was imminent:

Not that we want to be considered alarmists, but those about to build on Queenscliff should remember that Russia is increasing her fleet in the Pacific. It is only a question of time. (QS 13/8/1887)

When another scare occurred in 1888, it prompted all the defence garrisons to be mobilised. The defence networks were highly criticised at the time, as the forts at Pts Nepean and Franklin had been almost completely dismantled, presumably having either been replaced by the longer

range of the gun at Eagles Nest, or were in the process of upgrading their guns (Age 2/7/1888; Argus 2/7/1888; O'Neill 1988:45).

By the time the forts at The Heads were finished they were the most formidable defences in the southern hemisphere (QS 23/12/1882) and were known in the 1880s as “the Gibraltar of the south” (O'Neill 1988:39), which must have led to some degree of security for the colony. However, concern was again expressed about the lack of available men to operate the guns during the Easter war games in 1892 due to recession and government cutbacks:

Thursday's operations were confined to Queenscliff and Nepean Forts, the VA and Engineers not being strong enough to man all the forts. This is a serious matter, as should a hostile fleet attack the defences at The Heads some of the forts will be virtually wiped out of action and at the mercy of the foe. To bring up the militia garrison batteries will take time, and an attack, if made, will be without warning. Major Umphelby is constantly practicing the officers and men under his command at a carefully prepared scheme of defence of The Heads might prevent a catastrophe as described, but what with a complicated armament, scientific and elaborate gear, largely distributed command, paucity of officers and men, the task is a severe one. (QS 26/11/1892)



Figure 5. 36: New heavy battery at Queenscliff (13/5/1878, SLV Collection)



Figure 5. 37: Scenario of the capture of Queenscliff Battery (IAN, 1/12/1893, SLV Collection)

The replacement of some militia forces (Port Phillip Battery Corps) in 1892 with a limited force of permanent soldiers was greeted with trepidation, and several speculated scenarios of potential Russian invasions of Melbourne was presented in the local newspapers (QS 22/7/1893; Figure 5.37) which seems to have been a common reaction in popular literature around this time (see Mullen 1883; “An Old Colonist” 1883). It may also have served to isolate the community somewhat from the defence forces through their exclusion from military service.

However, fears of war appear to have quickly faded after this time. Newspapers which formerly supported the defence networks, were now openly hostile towards the expenditure outlaid for their construction. When the Popes Eye Fort became redundant by 1890 due to improvements in gun technology based on Swan Island (Tate 1982:73; Kitson 1987:2.2, 6.5), a local newspaper lamented the waste of public funds spent on what it called:

...a useless heap of stones representing thousands of pounds thrown into the sea. No doubt about it, the past governments have had a high time squandering the public's cash, and we think that if Christ came to Melbourne he would fall upon his knees (QS 28/7/1894).

It later openly criticised the works on the moat around Fort Queenscliff and Popes Eye as white elephants:

The war scare which occurred about twelve years ago afforded many a constructive lesson to the Government...the Queenscliff Fort...and Popes Eye Fort. It was probably the knowledge of these two impregnable and wonderful defences...that induced ...the Czar to throw up the sponge and stay all warlike proceedings. This was the only good thing which this great outlay of public money ever did...excepting providing a haven of rest for weary seagulls, and the ditch as a cowcatcher to prevent wandering cattle from entering and nibbling at the legs of artillerymen as they are drilled at the guns. (QS 2/4/1898, as cited in Tate 1982:78)

It appears that with the installation of an effective defence system, citizens were now becoming blasé to the role of the defence forces and warfare in general in the town. The complacency of Queenscliff residents to the threat of war was remarked upon in 1908:

Queenscliff residents seldom realize what this would mean to them. In an action at The Heads the town would probably suffer more than the fort... Out at sea our large buildings stand out very prominently, and these would probably become an aiming mark by which the enemy would, judging by the effect of their shell fire on them, be enabled to estimate the range required to pump their projectiles into the defences. It is therefore sincerely hoped... that the day is far distant where we shall be awakened to hear the dreadful booming of an enemy's cannon at our gates. (QS 25/4/1908)

Annual Easter war games saw the town overrun by military each year, with constant firing of the artillery and testing of the submarine mines. The environment of games for 1886 was described as such:

Visiting dignitaries fired the four torpedo charges at The Heads, producing four superb fountains of water, and then the vessel Miner simulated the effects of a vessel detonating a mine, when it deliberately struck the circuit cable and set off the mine. The seashore trembling and vibrating as an immense volume of water leapt about 200 feet into the air. A mock night invasion was practiced on the Sunday Night. More explosions were set off in front of the Doctor's Jetty the next day, much to the delight of the spectators present. (QS 1/5/1886)

Furthermore monthly gunfire practice was a regular occurrence from the 1880s onwards (QS 29/3/1890, 16/5/1891, 3/2/1894, 22/8/1908). Along with mine and torpedo testing (QS 29/3/1890) in the West Channel until at least 1907 (HOA), and machine gun practice (QS 25/3/1893), the noise and shockwaves pervaded throughout the entire town. The boom of continuous gunfire exercises and looms from fixed searchlights became a way of life in Queenscliff [CA; CS; GW] which probably further desensitised locals to the threat of warfare:

When the 6" guns would practice, you would hear this bang and everything would rock. We had a dresser with cups on hooks and the cups would jump off the hooks. This went on back to at least the 1880's, and since I can first remember. The guns were a part of life. In the 1930s tugs would tow targets for the guns to fire at, and they would often nearly hit the tugs too. No [we didn't lose our windows with the gunfire] it didn't happen. Even people living close [to the Fort] didn't lose windows. They only used to use half charges for that reason. When new buildings were built at the fort around 1936, they were built with gaps between the window frames so they wouldn't break. [GW]

In the twentieth century, Queenscliff residents were well aware of onset of periods of conflict, as first shot in each World War was fired from The Heads [DS]. Searchlights were used during WWI and WWII to illuminate incoming shipping (O' Neill 1988:52), and the Pt Nepean lights were reported to be so bright that one could read a newspaper on the beach at night at Queenscliff (Cronin, cited in Tate 1982:153). Night time searchlight practice was undertaken at Queenscliff in WWII with planes from Melbourne or Geelong, and during the day the planes towed targets for anti-aircraft practice [GW]. Artillery gunnery practice was also conducted during the 1940s (Tate 1982:147, 150). Following Pearl Harbour, the threat of aerial attack became a tangible reality, and as many guns had already been taken for scrap from the forts or removed to Darwin to reinforce its defences, local Engineers fabricated mock guns out of telegraph poles which were mounted on the gun positions to deceive the enemy (Ward, cited in Tate 1982:154).

Even though the presence of war pervaded all aspects of everyday life in Queenscliff, there was marked complacency amongst the community regarding hostilities, particularly during WWII when the dangers from German enemy shipping were closer and more tangible than ever before (Tate 1982:99). It appears that the defence paranoia instilled on the township since its inception, may have caused the community to become blasé about the dangers. Even during WWII, the Queenscliff citizens were complacent about the war being centred in Europe and the Pacific, and that the township was immune from hostilities (Wane 2003:36). The war was a distant threat to soldiers based at The Heads, and moral was often low from long periods

scanning the horizon for vessels or planes that did not appear (O'Neill 1988:56). A WWII artillery soldier stationed at Pt Nepean recalled:

No, we never thought we were under imminent threat, we were just doing a job. The only threat was when the rations didn't arrive...But no thought of war. (Stillman, cited in Tate 1982:156)

Many other residents echoed the same attitude. When asked what people thought of the extensive defence networks and their possible effect on the community as a target, [CA] replied: "you accepted it. You were brought up with it...Even during the war, you didn't know there was a war on...there was a war on, but it was not here". This sentiment was reinforced by [GW]:

It was a lot of fun...we had regular air raid practice where we had to run to slit trenches... it was a bit of a joke really to us kids...I don't know how the adults felt at the time, they never talked about it. One thing they did say, was that if Swan Island (mine depot) was ever hit, Queenscliff would go. [GW]

The physical effects of the gunfire practice seem to have been widely accepted within the community, despite the disturbance to residents. The most obvious effects on the community were the visual prevalence of military hardware in the region. There were very observable reminders of the war in Queenscliff:

The back beach was closed off from 1942 until the end of the war. There was barbed wire from the cliffs all the way around to Cottage by the Sea. There was a big gun emplacement behind Maytone [Guesthouse] during WWII. A bloke was shot at Crows Nest during WWII, and then dragged down into the water, even though the other guards at the base heard the noise and saw the shot. They returned fire at the man, but didn't catch him. [GW]

Although this event sent repercussions through the community, and the effects were mainly felt by the children:

After the soldier was shot at Crows Nest, my brother and I were terrified whenever we had to go to the toilet of a night, as the toilet was outside. [JP]

This starkly contrasts with viewpoints of other communities on the Western Victorian coastline, which was subject to mining from German minelayers, where Hunt (1999:30) observed that "people were nervous, with all sorts of rumours floating around. Three Navy minesweepers were anchored in Loutit Bay...and they were evidently sweeping for mines laid by German and Japanese minelayers in the shipping lanes off Cape Otway". Gun firing and marching practice was also undertaken around the town, which Hunt (1999:29) thought was: "trying to instill a bit of confidence into the local townspeople". This suggests that the defence facilities of Port

Phillip provided (to some extent) a degree of perceived security that was reflected by nonchalance of the local community to possible invasions.

It is clear that the paranoia experienced in the nineteenth century was well removed from the community by the twentieth century, even though the conglomeration of defence facilities and other structures and services made this area a very strategic target indeed. The removal of the war theatre offshore appears to have led to a culture of antipathy towards the military as the war threat diminished, and they were thought of more as a curiosity and/or annoyance in later years, as compared to a previous necessity. The resident's eventual exclusion from involvement in the army through voluntary service (in the nineteenth century) was eventually reflected in changing attitudes to the army, who were later seen as interlopers to the town.

5) Discussion

This chapter has provided a summary documentary history of defence in Port Phillip Bay, upon which to examine the expansion of the military landscape. It has been shown that the defence landscape was driven historically by ongoing advances in technological innovation and was highly influenced by political strategies (both local and international), which were based on economic protective policies or strategic alliances. These factors led to a highly dynamic and evolving military landscape which resulted in the reservation (and later subsequent abandonment) of previously important military areas as each technology became redundant, and led to the eventual advancement of the theatre of war into the maritime landscape further offshore. Of interest here was the plotting of the installation and removal of these technological developments into and out of the landscape, and also the impact of exclusion of the local population from parts of those regions (see below). This dynamic and episodic nature is an important signature of military landscapes.

The presence of new technological developments may also indicate or typify the archaeological signatures of frontier military landscapes, and that this dynamism is recognizable in the changing fabric, style and nature of the archaeological record both temporally and spatially. Many new types of defence sites and their subsequent archaeological signatures (some of them seemingly insignificant) have been identified that characterise previously unrecognised components of military life, all of which have great applicability for examining the military presence elsewhere where documentary records are less informative.

Foreign political upheaval and tensions have been shown to have marked effects on local defence strategies, and have introduced cognitive components of external landscapes into local community perceptions. This observation further suggests that even localized defence landscapes form part of a much wider international forum, which demonstrates the different nested levels at which landscapes operate, and the transposition of new technology and practices from one area to another.

The military's almost universal use of land and sea demonstrates a borderless conception of the potential arena of war, where the distinction between the two mediums is limited only to the mode by which each is managed. This continuum of the defence battlefield that straddles both land and sea (and often disparate/ isolated continents) is significant, as it further demonstrates the interconnectedness of marine and terrestrial landscapes in the military mindset.

Furthermore, these same landscapes of war have demonstrated the multivalency of perceptions that existed side by side in the township. On one hand, there was the angst and paranoia of the defence personnel in their rush to finalise their preparations for war, which in response seemingly spurred on a nonchalant, almost carefree response in the local civilian population to the actual threat of invasion (especially in later years as the arena of war moved further offshore). The seclusion often isolated the local residents, not only physically from the potential battlefield, but also cognitively from the threat of war. It has also been shown that perceptive attitudes to warfare were episodic, and that the same sites which once inspired so much confidence and were admired for their symbolic protectionism/paternalism, were later denigrated as fool hardy wastes of money. This aspect demonstrates the temporal dynamism of landscape values, and the short periods within which they can change.

Defence landscapes often existed as exclusionary regions for the civilian population, where areas of both sea and land were off limits. These empty prohibited spaces presented an intimidating political message to potential enemies, but they also symbolically transmitted the power of the military to and over the local population. Exclusionary practices were materialised in restrictive behaviour and compartmentalization of the landscape presented a powerful tool that characterised the military presence, both for civilians and their own personnel. Attitudes of exclusion towards local involvement in defence will be seen to be a key determinant in the construction of the various community landscapes and relationships within Queenscliff, which will be discussed further in Chapter Eight.

The continued presence of the military in this area has obviously shaped the structure of the various community landscapes, through its exclusion from certain areas, its physical and sensory imposition on the residents, and its influence on the perceptions of the town as a target. The defence landscape has had significant impacts on the formulation of other maritime landscapes within the area, through the definition and enforcement of exclusionary areas, and which will become evident in the forthcoming chapters.

It is notable that defence force landscapes were evident in rich documentary historical accounts that outlined the technological aspects of the warfare machine, and were abundantly evident in substantial and robust archaeological remains of the former military facilities. However, the transitory nature of the defence personnel in the township often curtailed any deep ethnographic or traditional investigation of the military culture itself, resulting in an impersonal landscape that was often devoid of individual insight and any time depth outside of official historical customs and practices. On a smaller scale, defence personnel differentially experienced landscape based either on hierarchical status associated with rank, or geographically dependent on their role within the forces (i.e. naval vs. army, artillery vs. submariner miners), which was reiterated by the lack of knowledge of practices and procedures outside their own physical workplace area and occupational speciality. This situation produced many individual landscapes perspectives that were often difficult to access due to the inherently hierarchical, compartmentalised and transient nature of the defence forces structure and personnel. This situation highlighted the multivalency of defence landscapes, which existed on many different levels both officially and personally. Furthermore, it also demonstrated the restrictions in data sets that might potentially be available to access some defence landscapes, which were predominantly informed by documentary and archaeological data sets.

In the next chapter I will explore the township of Queenscliff from another perspective, that of fishing. The social mechanisms that drove the generation of fishing landscapes will be explored in further detail, along with how these might be archaeologically expressed, and what data sources might inform of them.

...the experienced hunter is the knowledgeable hunter. He can tell you things from subtle indications that you or I, unskilled in the hunters art, might not even notice. Called upon to replicate this knowledge, he may do so in a form that reappears... as a corpus of myths and stories...But we should resist the temptation to assume that since stories are stories they are, in some sense, unreal or untrue, for this is to suppose that the only real reality, or true truth, is one in which we, as living, experiencing beings, can have no part at all. Telling a story is not like weaving a tapestry to cover up the world, it is rather a way of guiding the attention of listeners or readers into it. A person who can “tell” is one who is perceptually attuned to picking up information in the environment that others, less skilled in the tasks of perception, might miss, and the teller, in rendering his knowledge explicit, conducts the attention of his audience along the same paths as his own. (Ingold 1993: 153)

Chapter Six: Fishing Community Landscapes

1) Introduction

Fishers in many global cultures have demonstrated an awareness of seasonal climatic trends and resource availability that have led to deeper understandings of, and close relationships to the sea and its creatures. These insights have often led to the development of distinctive landscapes that are entrenched in knowledge networks tied to the sea and land through folklore, oral histories and toponymy, and which were physically linked to a variety of terrestrial and maritime sites. Western fishing landscapes were therefore structured differently to those of many other social groups, as they regularly relied more on inherited familial knowledge to interpret the landscape, a notion which has many parallels in indigenous maritime societies. Restricted access to this knowledge further limited any potential understanding of the meaning of these landscapes to the fishers themselves, which was then used to reinforce their identity and support their territorial boundaries with other cultural groups, and also affected the social fabric of those fisher cultures themselves.

As discussed previously, Ingold (1993:153) has highlighted the role played by narratives in landscape studies, and advocated that informal knowledge networks via stories and myths offer potential insights into historical cultural behavioural traits and natural environmental observations that may (or may not) be subsequently expressed in material remains observed in the archaeological record. In particular, he demonstrated that hunting knowledge was often only retained through tales and folklore, and that experienced hunters were perceptually attuned to picking up information in the environment that other less skilled hunters might miss. With this in mind, the following observations were recorded of another hunter/gatherer group, the Queenscliff fishers, from both the

past and present. In order to understand the culture and depth of structure of the fishing industry, numerous fishers were interviewed within the community, who evidenced overlap between the fishing and other maritime sub-groups, providing valuable insights into the community as a whole. It will become evident throughout this chapter that oral histories are a central data source for accessing and understanding fishing landscapes, as much of this information is never written down or recorded historically.

In this chapter I will investigate the maritime worlds particular to the fishing community of Queenscliff to demonstrate the diversity and range of cultural landscapes that form part of the fishing culture, and the depth to which the concept can be explored. Aspects of fishing customs will be examined to demonstrate the types of activities undertaken, how actual fishing practices operated, and consider the differentiation of spaces and places used by fishers to explore the notion of multivalent fishing landscapes. This will be contrasted with traditional knowledge and belief systems to investigate the scope of sources available for understanding fishing practice, and how they might ethno-archaeologically inform of their subsequent and/or potential archaeological signatures. The close relationship of fishers to the environment will be explored in further detail to demonstrate the level of hereditary knowledge that is embedded within these local landscapes in the form of folklore that is used to predict seasonal resource availability.

It will be demonstrated that members of the fishing community relied heavily on other means to supplement their fishing incomes, and these economic sources will be briefly examined to show the range and unexpected diversity of resources that were essential components of fishers' landscapes. Recreational pursuits and relaxation areas were also shaped by fishing culture, and are therefore important landscape indicators. The examination of these aspects will further demonstrate the interconnectedness and continuity of the land and sea within the fishing world. The fishing community will be explored from a gender perspective to demonstrate how the same geographic landscape was experienced differently by members of the opposite sex.

2) Historical Overview of the Queenscliffe Fishing Industry

The earliest known non-Indigenous fishing activities conducted at Shortland's Bluff were undertaken by a professional wrecker, William Bailey, who fished around Pt Lonsdale using an open boat salvaged off the beach (Simpkin n.d.:8). The early fishing industry at Queenscliff and St Leonards (along the creek) was dominated by Chinese fishermen who were already operating in this

area when European fishermen first appeared on the scene in the early 1860s (Anon. 1853 [updated 1864] [plan]; Fanning 1893; Kerr 1985:69; Wynd 1988:115), and the community increased markedly after a bumper season in 1862 (Simpkin n.d.:9). Under conditions of their fishing licences, fishermen were entitled to camp on Crown Land which they leased for £1 per year [HM; LID]. Within a few years a small community had evolved at the southern extremity of the Queenscliff Bar peninsula (known as Chinaman's Point), and the area was further developed with the arrival of their numerous European counterparts (Figure 6.1). Dried and later fresh fish were an essential commodity for the early colony, especially to provide the increased demand at the goldfields. The Queenscliff Chinese fishermen operated a fish smoker to produce dried fish and squid for the inland mining communities, and remained in the industry until at least 1875 (GA 20/2/1875; Cuzens 1912:5).

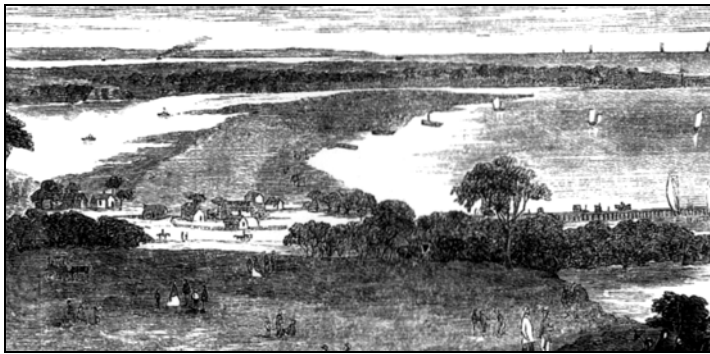


Figure 6. 1: Fishermen's Flat 1866, showing huts, boats careening on the Chinaman's Pt Spit beach, and Queenscliff Pier on right (Image: Albert Cooke, 25/4/1866, SLV Collection).



Figure 6. 2: Fishers cottages on the Fishermen's Flat 1907 (Image a02774, SLV Collection).

European Queenscliff fishermen originally inhabited the swampy region at the northern end of the town near the current railway station in the early 1860s (which was previously home to the local

Indigenous community). Later allotments were leased in the area now known as the Fishermen's Flat by 1863 which thereafter became the hub of the Queenscliff fishing community (Cox 1863 [plan]; Dod 1931:80; Gee, 1971:5 Beavis and Raison 1984:iii - see Figure 6.2).

3) Fishing Environments and Types of Fishing

Fishermen exploited the large schools of pelagic fish that seasonally frequented the area (QS 10/12/1892). They formed the principle economic catches for Port Phillip fishermen (and many other coastal towns around the state), and are inextricably entwined with the history of Queenscliff and the fishing community. Intimate understandings of the habits of these species was an essential component of every local fisherman's world, and to investigate how the fishing community landscape operated, it is essential to first understand how fishermen encoded information about these fish within their traditional knowledge and belief systems.

Three main types of fishing were common in the Queenscliff area including barracouta (known locally as couta), snapper and crayfish, which involved the use of fishing lines, nets and pots, respectively. Other fish species were also exploited, and these will also be addressed in lesser detail (see Appendix E-1 for details of economic fish species). Fishermen usually specialised in one form, but not necessarily to the exclusion of the others, and sometimes were engaged in all three. These fish species were migratory and territorial, and to harvest them required a detailed knowledge of their seasonal availability, feeding localities and habits. Catching fish required a familiarity of all these factors; you could not just go out fishing, you had to be prepared to catch a certain type of fish: "Old man Zanoni would say 'let's go fishing! What would you like to catch?' "[PF]. These various fisheries led to differential fishing landscapes within the community based on species exploitation, and are therefore worthy of further consideration.

A) Net Fishing

Net fishing was usually undertaken in shallow areas across sand or mud banks, often close to the shoreline (e.g. Lonsdale and Queenscliff Bights, Swan Spit, Swan Bay and around Swan Island, Duck Island and Mud Islands). Many types of fish species were taken using this method, including eel, ling, garfish, mullet, salmon, snapper and whiting. Boats used in this profession usually required a tapered stern to set and haul the net, whereas line fishermen usually preferred a transom stern to allow more fishers to access the school, although as fishermen were sometimes engaged in

both netting and line fishing, square (transom) stern vessels were sometimes used. Early boats were quite small, being only about 9ft long (Simpkin n.d.:9).

Net fishermen worked certain areas dependent on fish availability and weather:

Net fishermen worked from Swan Island to the St Leonards foreshore for garfish. It was shallow ground. There were only a couple of net fishermen working there. They used to fish there up to Anzac Day from about September in spring. The westerlies and south west gales stopped fishing after then. [JB]

Netting was hard work, and required fishermen to row to the catch area and set the net, then haul in the catch and row back again:

We used to fish all the way up the West Channel from the Swan Spit to the West Channel Light. We also fished the South Channel all the way from the Rip down as far as the South Channel Light. We netted over there [Mud Islands] in an 18 ft couta boat. We would row over there in the afternoon and worked over there in the night, and then we would come home in the daylight. [CS]

Net fishing entailed rowing a buoyed (top) and weighted (bottom) net around a school of fish, which was then closed. Fish were taken from the net as it was hauled aboard, and as the boats were often small to access shallow waters (around 18 ft long [CS]), the net was piled onto the back of the boat as it was emptied (Figure 6.3). Net fishers would often ground bait (lay down bait to attract fish) an area in the days preceding netting to attract fish (which was effective for up to a week afterwards [AH]), and would often corral excess fish catches close to shore:

They once got over 100 salmon in one hit, and they towed the fish into the area east of Dutchies Island and staked it out while they waited for the price of fish to go up. They dragged the nets along with the boats. Jack Gaines and Colin Shapter were walking in front of the net checking the bottom for snags. That was about 1950s. They drove in big stakes to make a corral and kept the fish there until the market price increased. [AH]



Figure 6. 3: Net fishermen at St Leonards c. 1906 (In Wynd 1988 - Photo: J. Rigby, St Leonards).

The process was slightly different in Swan Bay, where long nets were deployed along a large area, and the fish would be caught when they swam into the net [CS]. Migratory snapper were also caught in the channels by some fishermen.

The extensive sand banks surrounding the Mud Islands presented an ideal net fishery. Up to five fishing families predominantly engaged in netting lived at the islands from at least 1884 to 1920s, and included the Culliver, Fitzsimmons, Lee, McLeod and Stevens families, some of whom based their operations there for many years. They launched their boats off the beach, and their driftwood shacks were located at the northwest and south east corners of the islands (see Ross 1859-60, [updated 1868] - Figure 6.4), with a small pier erected on the eastern island which was later used by guano miners. Although an oyster lease was granted along the northern edge of the islands in 1879 (Ross 1859-60 [updated 1880]; Anonymous, c.1884 [plans]), it is unclear if this resource was ever exploited commercially, and it is possible that the fishers here leased this resource for its potential use as bait or to supply a commercial market (see discussion below).

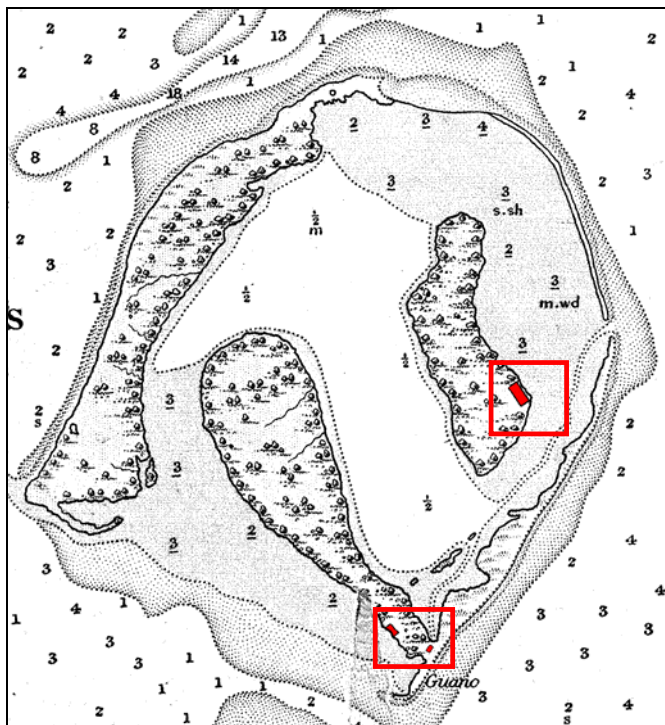


Figure 6. 4: Location of structures/occupation areas at Mud Islands in 1868 (After Ross 1859-60, [updated 1868]).

Although Swan Bay was exploited by net fishermen, catches in this region had been heavily regulated since the fishery was recognised as an early spawning hatchery (QS 24/9/ 1892,

24/10/1892, 7/4/1894). By 1896, all forms of trammels and nets were declared illegal in Swan Bay to conserve the hatchery, which was being overexploited by non-local fishermen (QS 6/6/1896, 4/7/1896). This proved unpopular with local fishers, who depended upon the fishery when bad weather prevented fishing elsewhere in the Bay (QS 11/7/1896, 1/8/1896), and resulted in occasional illegal fishing in the area:

There was a lot of poaching in Swan Bay, mainly for garfish using a seine net. They would put in a net with a stick and rope, and it took three hours to do a shot. Each shot had one mile of line, and you could do three shots in one night. You would put out 70-80 fathoms of nets, and put a peg into the mud. You would get black flathead, flounder and ling, and get about 30 shillings a box. [CS]

Net fishing required a large capital investment, so care was often taken to protect the nets. Many net boats were anchored in Swan Bay (close to the fishery), or in Stingaree Bay (Swan Island), and this often presented problems due to the abundance of rats that inhabited the area:

We had a net boat in Stingaree Bight. There were rats everywhere there, and we had to keep a rabbit trap on the step boat to catch the rats, to stop them eating the nets. [CS]

B) Line Fishing

Two types of migratory fish, couta and snapper, were targeted as the main economic species at Queenscliff. Although couta formed the principle economic catch, snapper also presented a relatively predictable income. Some line fishermen specialized in catching one fish type, but usually exploited both at various times dependent on weather and availability.

I) Barracouta (Couta)

Couta were caught at daybreak when the fish began biting [HM]. These aggressive pelagic fish fed on krill, baitfish and whitebait and would strike at anything that moved, including fishers fingers [CS]. Over time, fishers developed a traditional knowledge of this species, along with their seasonal availability, feeding habits and fishing areas to exploit at any given type of year:

...the couta were running in the third week of September, regular as clockwork. It was the second week in San Remo. Big patches of them would be left behind, which we would catch. The couta were inshore along the 20 fathom bank and under as far as Cape Schank and west to Apollo Bay. [HM]

Fishermen observed that couta fed around dawn, but sank down to deeper water as daylight increased [HM]. This collective knowledge was translated into a suite of material culture, and traditional practices that dictated the fishermen's daily lives.

In the early days of the industry, abundant couta schools were available inside the Bay. Fishermen used a characteristic type of vessel known locally as a “couta boat” (around 18-21 ft), which had evolved from double ended net boats of Melbourne, and incorporated a wide transom to allow up to three fishers to troll at a time. However, when couta stocks reduced in The Bay over time, fishers began exploiting fish stocks in the more boisterous oceanic waters of Bass Strait. These later couta boat designs were modified to incorporate increased length (average 26 ft), beam and draught, and were often fitted with a centreplate for stability and to be able to negotiate bar entrances (Kerr 1985; [CS; HM]).

Vessels of the later period faced the tidal restrictions associated with negotiating the treacherous waters of The Rip. A popular phrase amongst couta fishermen was “out with the ebb and in with the flood” which described the reliance of the tides to transit through the Rip. Couta fishermen would leave in the dark to get to the couta grounds by dawn:

We used to go over [to Swan Island] to get the boats after bad weather in the dark to catch the fish. The couta bite at the beginning of daylight and sometimes bite through. [HM]

Finding couta was time consuming, and fishermen sometimes ranged up to 40 miles out to sea looking for fish when the season was poor (QS 30/6/1894). [CS] recalled: “We used to go down as far as Black Rock looking for couta. One day we rowed all the way back from Barwon Heads [approx 20 km away] with a boat full of couta”. Fishermen were heavily reliant on one another to find couta schools: “You need a lot of boats out when looking for the couta. It’s a big ocean, too big for just one boat to find them” [BM]. Fishermen also depended on pilots or other mariners to pinpoint schooling couta shoals that had been observed by passing shipping [JP]. Other types of alternative fish finding techniques are outlined further below.

Fishermen used several trolling lures towed behind the boat until a school struck [LF]. The original lures consisted of a wire trace with a hook stuck through a piece of white leather hide or sheepskin which resembled a small baitfish when towed through the water (Raison 1987:4; [HM; PF]). The boat was then turned and sailed through the school until the catch rate decreased, and then the vessel was tacked back to again intercept the school, which were sometime several miles long (QS 10/12/1892). When engines were later introduced to couta boats, the tiller was simply turned in a lock to bring the vessel in a large circular sweep through the fish shoals. As the fish sank deeper as daylight increased, weighted hooks were used to catch the first fish, which was then drawn to the surface and tethered to attract the rest of the school [HM; PF]:

...fishermen rigged for trolling would hit a patch of fish, drop their lead lines and sail in a circle round the patch, and throw out whitebait and burley to attract the fish and get them biting. [HM]

When a fish struck the lure, it was hauled in and swung under the arm to remove the hook before dropping it into a fish box [CS], and a leather insert was placed in that armpit of the weatherproof jackets worn by the fishers to prevent abrasion. Later developments saw a board fitted forward of the transom, called a hooking board [LID; PF], along with barbless hooks attached to a timber peg called a toggle, where the fish was flicked over the board to release the hook ([HM; LF] in Kerr 2003b).

Many Queenscliff based fishermen on average rowed or sailed up to five miles offshore, and up to 20 miles along the coast to Black Rock in the west and Cape Schank in the east [CS; HM; LF]. Although stocks of these fish were still occasionally found inside The Bay in the twentieth century (which was a location preferred by the fishermen as the fish were easier to find and fishing was then not dictated by the tides), they were not regularly available there [HM; LF]. Couta were usually gutted on the trip back to port, to avoid attracting sharks to the anchorages [CS; HM; PF]. Sheep shears blades which had been converted to knives were used for this process, as they retained their sharpness enabling the entire catch at one time without the need for re-honing [HM; LID; PF].

II) Snapper

Snapper and whiting were often exploited by fishermen when couta were not in season [HM]. Snapper are migratory bottom feeding fish that were usually caught with a handline close to the edge of deep water channels. Schools would enter The Bay at particular seasons and small shoals of fish would trail away from the main school to inhabit reefs located along the way [HM; LID]:

Snapper graze like sheep. You've gotta go find them. They come in patterns along the coast... from the west in spring along the Victorian coast as a patch. As the patch goes past, some will fill a reef, and the main school keeps going on to fill the Bay [Port Phillip]. When the season is over, the patch move down the bay again and meet up with their mates on the way down. Your catch also depended on what the feed's like on the ground. If there's good feed ... then they're hard to catch. If there's no feed then they're easy to catch. [BM]

These sites were all fished on the ebb tide when the bottom was stirred up. Most were located over rocky or “spongy” (soft sponge/corals) ground [HM; JB; PF], and a detailed local knowledge of underwater topography was necessary to find them. These concentrations of fish stocks were known locally as “patches”, which were named after either (aspects of) the fishermen who found

them, their geographical location, or after historical events that took place there [HM; JB]. For instance, on one occasion the boat of a fisherman who was possessive of “his” patch (and who would try to hide caught fish to conceal its location [PF]) was boarded by another fisher and a fight ensued. This patch was named after the shear blade knives that were used “like swordsmen having a go at one another” [JB]. Other colloquial names which identified snapper fishing locations around Port Phillip Bay are shown in Table 6.1.

Name	Where	Source	Toponymy
Boarding House Patch	South of current creek mouth, 300-400 yards offshore	[JB; HM]	Named after lead mark taken from a boarding house (Queenscliff tower flagpole and flagpole on Baths)
Ferriers Ground	Just south of Pilots Pier and out a bit, near where the pilot boats moored	[JB; HM]	Patch discovered by Frank Ferrier
Goat Patch	Unspecified	[JB]	Discovered by Thwaites, who kept goats - patch named after him
North Roughup	End of the West Channel off the lighthouse near the bottom of the West Channel	[JB]	Named to describe the rough water/ bottom type
South Roughup	Near the West and South Channels join up off the lighthouse	[JB]	Named to describe the rough water/bottom type
Shear Blade Patch	Near West Channel at Queenscliff	[JB]	Sibber Shapter had claimed unofficial ownership of this area, and used to think it was his own. There used to be fights over the area, where fishermen threw sinkers and rotten bait at each other. On one occasion, one fisherman boarded another's boat, and a fight ensued. The site was named after the shears that fishermen used to gut the fish with, which were used like swords during the fight
West Channel Patch	West Channel (unspecified)	[JB; HM; PF]	Named after its location in the West Channel

Table 6.1: Snapper Patches Fishing Grounds in Port Phillip

Most significantly, each patch was defined by a set of informal shoreward transit marks which were lined up to guide vessels to the area. [JB] recounted:

The marks for the Boarding House Patch were the tower on the Queenscliff Hotel over the baths tower. They both had flagpoles on them which they used to line up. Another mark was the Swan Island beacon and a tree at the Golf Links. All the patches were located using marks onshore. They might use the lighthouse over the Norfolk pine for one mark, and the end of Swan Island open to St Leonards for the other. Each patch had its own marks to get there, but most of the marks are gone now, as there are too many other trees in the way to see them, or they have been cut down. You might find them on old charts, but you can't see them from the sea [JB]

Similar observations were made for nearby Westernport Bay, where pine trees (which were purposely planted) and other transit markers formerly used to locate fishing locations were being removed, leading to the loss of knowledge of many of the old fishing locations [BM]. The use of informal shore-based lead marks demonstrates that many terrestrial landmarks had social and economic value for the fishing community, a fact that is not normally considered when assessing community heritage values.

Snapper rigs varied dependent on the seabed composition. If the seafloor was comparatively clean and free of obstructions, then a running sinker was used, and if not, then multiple hooks were often rigged to a fixed sinker (Wedlick 1965:26 - see Figure 6.5). Snapper sinkers varied in weight dependent on the water depth and strength of the tidal stream (often weighing several pounds), and were sometimes similar in shape to hydrographic surveying lead line weights [LID; PF]. Mussels were often crushed and thrown overboard (either directly into the water or in a tethered sugar bag) as groundbait to attract the fish to under the boat ([HM]; Wedlick 1965:33).

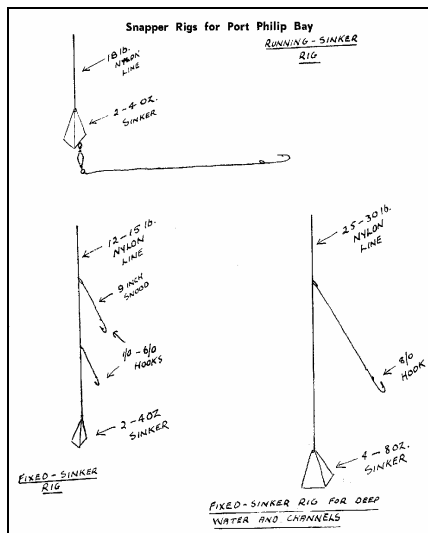


Figure 6. 5: Examples of Snapper Fishing Rigs used in Port Phillip Bay (In Wedlick 1965:26).

Despite the incident described above, when several fishers were specifically questioned about the existence of territorial areas or patches that were owned by individual fishermen, all indicated that this practice did not exist in this area. However, all the respondents indicated that there was an informal (though obligatory) fishing etiquette that ensured everyone was given an equal opportunity of catching snapper. Once the first fisherman had arrived on the scene where fish were biting, any later arrivals were expected to line up their boats across the channel so that no one fisherman was any closer to the channel/fish shoal than anyone else:

The boats would form up in a line when snappering. No boat was allowed to slack back on the line. People would “‘Hoy out’ if you slacked back. The boats would line up and you would throw horse from the lead to the hooks. You would throw back as far as you could to get to the school. [HM]

Fishermen would often throw rotten bait and sometimes sinkers at each other if they thought another had breached informal fishing etiquette [PF], and the following incident (from the 1960s) exemplified the fishing community’s attitude towards anyone who violated this code [CS; HM]:

Anchoring in a line took skill, as you had to know where to anchor in order to drift back into line in the right place. Once, a [amateur] fisherman anchored further down the channel than the others already there, and drifted back over their lines [effectively blocking their access and potentially limiting their catch]. Bluey [Welsh] got a grapnel and threw it in front of their boat, and hauled in the anchor line...and cut the rope connecting the anchor and told him ‘Now get into line’. [LID]

Similar fishing etiquette was observed by Goldsmith Carter (1945:35) in Britain, where it was considered bad form to cast ones net close in front of another fisherman’s net, and often led to fights and lack of prestige for the perpetrator.

Snapper were also taken using longlines in the twentieth century:

There were seasons for snapper, but poaching went on. We used a 1000 hooks up past Mornington, long lines were used there, and you would unwind the line from linseed tins, with 50 hooks to a line. This was called the long line. The tin was under the 50 hooks and when thrown overboard it unwinds on the way down. [HM]

C) Crayfish

Crayfish (known internationally as the “Southern Rock Lobster”) were widely exploited around the rocky ledges of The Rip, Lonsdale Bight, Pt Nepean, the oceanic shoreline as far as San Remo and Apollo Bay, and sometimes in rocky patches in the channels [CS; HM; PF]. Crayfish were caught using the traditional method of cane pots which were set on the edges of underwater ledges, and crayfish availability varied seasonally, dependent on their breeding habits (see Wright 1990 for further discussion of crayfish habits). Crayfishing operations in Lonsdale Bight were described by [CS]:

In the Rip you would get crayfish...We made big cray pots. One day we shot three pots in the Rip. We pulled 180 crays in those three pots, and there was more hanging onto the outside of the pot. We would get crayfish from the area between Lonsdale Reef and Pt Nepean at Corsair Rock, and as far over as Victory Shoal. We would fish along the edge of the drop-off and the reefs. We would also get crayfish outside starting from Nepean Rock all the way down to Cape Schank... We would go a couple of hundred metres to half a mile offshore. [CS]

Cray pots were often baited with sheep's heads or dead fish, but birds such as gannets, pelicans and mutton birds were regularly used during the nineteenth century, and possibly later [PF]. Crayfishing became very popular in the area after WWII, and several larger boats operated out to the Bass Strait Islands from Queenscliff. After overfishing of krill stocks by foreign fishing vessels led to the decline of couta stocks, several fishermen converted their couta boats in the 1950s to include pot winches so they could exploit both crayfish and couta ([CS; HM]; Kerr n.d.:1985). Fishermen kept live crayfish in underwater holding pen crates called coffs (see Figures 6.6 and 6.7) which were located close to the piers or at their moorings until they were ready to be transported to market [LID].



Figure 6. 6: Crayfish coff, Fishermen's Pier (Photo PH020, QHM Collection).



Figure 6. 7: Lowering a crayfish coff with the Fishermen's Pier Crane (Photo PH092, QHM Collection).

D) Other Economic Catches

Many other fish species were exploited outside (and during) the snapper and barracouta seasons, including eels, flathead, garfish, ling, shark, rock cod, squid and whiting [HM; JB; PF]. Different techniques were involved in catching each type of fish, dependent on the area it inhabited, where it swam in the water column (i.e. top or mid water, or on the seabed), and these techniques resulted in many different variations of fishing material culture. Some fish such as yellowtail were deepwater fish, which required heavy sliding sinkers on the line which would not get caught on the reef [CS; HM]. Other surface dwelling fish such as salmon required lightweight sinkers (if any at all), whereas the shape of lightweight sinkers used to catch flathead and whiting (which inhabited sandy bottoms) were irregularly shaped as they were not in danger of being snagged on the seafloor [PF].

The fishing community demonstrated detailed knowledge of every economic fish species available in The Bay. The range of fish targeted is shown in Appendix E-2, along with the approximate season,

location and method of exploitation, but should not be considered exhaustive. It is notable that there is both overlap and discordance between the fishing areas outlined by each individual, which further demonstrates that fishers each exploited slightly different landscapes within the same study region (see below).

E) Bait

Bait for fishing was an important resource, and the type varied dependent on the sort of fishing undertaken and availability of resources. Appendix E-3 outlines in detail the types of bait exploited for different fish species procurement and where they were obtained from. In the 1930s, the blasting of the Rip associated with channel deepening was sporadically an important source of bait for crayfishing, when the dead fish floated to the surface after explosions [HM; PF]. Bait often included the by-products of fish processing, fish caught in fishtraps, shellfish taken from piles or shallow inlets, or illegal sources such as undersized crayfish, or seabirds. Similar practices were also undertaken in nineteenth century America at Cape Cod, where gulls were caught for bait using small house traps (Thoreau 1865:34; Yentisch 1988b:141).

4) Migratory Fishing Landscapes/ Extent of Fishing Pursuits

The migratory nature of some fish species was also reflected in the practices of the Queenscliff fishermen. In particular the movements of barracouta and snapper led several Queenscliff fishing families to relocate along the coast between San Remo, Queenscliff, Apollo Bay and Lorne at various times during the year [JB]. As such, many Queenscliff residents were also often considered members of other communities along the coast which were linked through seaward routes (Ferrier 1991:6):

The Queenscliff fishermen have a strong affiliation with Port Phillip Bay and Apollo Bay and Lorne. The fishermen here were transient nomadic fishermen, they moved chasing fish. Successive fishermen followed their brothers and fathers from one place to another. They followed the couta as they moved down the coast. There is a strong connection between fishing communities, and often the same people lived in different communities. [PF]

Queenscliff fishermen first exploited the Lorne fishery from May 1934, and some fishermen even fished as far afield as Lakes Entrance (Gippsland) or Port Fairy, but these were usually during breaks in the routine fishing seasons at Port Phillip Bay (Kerr 1985:71-2). The seasonal nature of couta fishing was outlined by one fisherman:

After March, we would go to Lorne... in the winter months, June July and August following the couta. I went to Lorne for 3-4 months in winter to follow the couta, then went back to Queenscliff in summer, until the fall of the year when the fish would ease off again... The Apollo Bay boats would also come to Lorne following the couta [HM]

Many Queenscliff fishermen had smaller couta boats (18 and 21ft) to use at Lorne for winter fishing from 1934-42 (Ferrier 1991:6). These boats were lighter than those used at Queenscliff, as the lack of a suitable harbour at Lorne meant boats had to be pulled out of the water and placed on the pier in bad weather [HM]. Differences between fishing practices at the two locations were also evident in the types of moorings used:

We would pull up our moorings and take them to Lorne with us, and back again when we returned. At Lorne we had 2 mooring anchors and would also tie up to the pier. In Queenscliff we had one central anchor that we would free swing on, and you had your own area to anchor in between the piers and on the north side. [HM]

Similarly, as fishermen began exploiting other fish resources, boats began to move further afield. As early as the 1880s, Queenscliff crayfishers exploited the resources of the Bass Strait Islands using larger vessels with inbuilt holding wells. These larger vessels were often ketches, capable of holding live crayfish in a well, with smaller tender boats that were used to pull the crayfish pots themselves (Kerr 1985:76-8; [LID]).

5) Tangible Traditional Knowledge

Queenscliff fishermen appear to have developed a suite of practical fishing skills and knowledge that extends beyond observations of fish habitats and seasonal availability. The Queenscliff fishing community have demonstrated tangible and intangible observations of the environment that are akin to the traditional knowledge and practices demonstrated by Indigenous Pacific Island fishing and navigator communities mentioned previously in Chapter Three. Some of these observations will be outlined in further detail below.

A) Daily Indicators of Resource Availability

It is common knowledge amongst fishermen worldwide that the presence of large numbers of pelagic fish caused smaller bait fish to shoal near the surface, thus attracting gannets, gulls and shags to feast on the school. Through the observation of flocks of diving gannets, it was possible to identify the location of predatory shoal fish, such as snapper, barracouta, salmon and tuna, and local fishermen found that it was possible to track and catch large schools of fish [BM; CS; HM; LF; LID; PF]. An environmental cycle determined the location of economic species within The Bay:

“The bird life moves around The Bay with the tides...Birds in the channel signal that whitebait are schooling, and that snapper are chasing them” [PF]. Various types of birds heralded different types of fish species, (and are outlined in further detail in Table 6.2).

Birds as Indicators of Economic Fish Species					
Fish Catch Type	Bird Type	Fish/Bird Prey	Location	Notes	
Barracouta (couta)	gannets	baitfish, krill, pilchards whitebait	Bay/ Ocean		[BM; HM; LF]
Mullet	unspecified		Pt King Birdwatchers Huts		[PF]; NHS 1966
Salmon	gannets/terns	squid/krill	Corsair Rock	terns called salmon divers	[BM; HM]
Snapper	gannets/terns	whitebait	Channels	netboat fish more active in dirty water, so fish on ebb tide	[PF]
Trout	gannets/terns	whitebait			[BM; CS]
Tuna	mutton birds/ terns				Wilson 1992:37
Seal	seagulls			“If you see seagulls when fishing, you don’t fish over there as a seal is throwing fish out of the water, which is attracting the birds”	[BM; LF]
Seal	snapper/ yellowtail			“Fishermen often can tell where a wreck is by the presence of a seal, as they live on the fish that live on the wreck”	[GrW; PT]
Shadows/ Dark Patches as Fish Indicators					
Mullet			Pt King Birdwatchers Huts		[PF]; NHS, 1966
Yellowtail		Pilchards	Convent Beach, Lonsdale Bight	“You could see differences in colour as they (the fish schools) moved across the sand. They showed up as a dark patch 200- 300 yards off the beach”	[CS]
Kelp for Reef Identification					
Crayfish				“We used to shoot pots by the kelp lying on the surface. You could detect the ledge underwater by the kelp lying on the surface in slack water”	[HM]

Table 6.2: Daily Indicators of Fish Availability.

This practice was common among ancient and modern Polynesian Fishermen (Gladwin 1970:30; Iversen et al. 1990:26). Goldsmith-Carter (1945:37) recorded similar behaviour in south east Britain, where flocks of “Herring gulls” were used to herald the location of the fish schools, an observation that was reinforced by [BE]:

My father and uncle fished for herring in Britain. They would sit in the wheelhouse for days at sea and never said a word. They were looking for birds that indicated where the fish were.”

This last observation may suggest that many of these practices may have been transported from analogous fishing cultures overseas to this area.

Other fish species (yellowtail and mullet) were also identified by the presence of dark shadows/patches on a sand bottom ([CS; PF]; NHS 1966), and crayfish habitats were identified by kelp on the surface which heralded the reefs underneath [HM]).

Normally rare documentary evidence of these practices was located in historical literature for an area adjacent to the study area. Bird and fish watching huts once existed on the cliff top near Pt King (between Sorrento and Portsea), and provided shelter for fishermen while they kept a lookout for diving birds and fish schools [PF]. These “Huers Huts” located 104 ft directly above the fishers beach camp were used by lookouts to spy for diving birds, grey shoals of fish entering the bay (along with associated dangers such as sharks or whales) whereupon an alarm was raised to those waiting in the camp below to begin work. The family eventually also built their own jetty and holding pens for storing live fish before they were transported to market, but these were demolished in the early 1960s. Further details of this venture were outlined in NHS 1966 (31-4, 46-7). No similar structures were identified at Queenscliff.

B) Knowledge of Migratory Fish Species

I) Seasonal Indicators of Migratory Fish Species

During the winter months, adverse weather conditions and the absence of migratory fish species forced many fishers (who did not relocate to follow the fish migration) to repair their boats and seek other work. These were periods of great poverty in the fishing community, where families often were forced to live on credit from local grocers and traders [JM]. The beginning of the catch season was a time greatly anticipated by the fishing community, as it broke the enforced fasts and hardships experienced during the lean winter months.

Fishermen relied on several seasonal indicators of the return of their principle source of economic livelihood, which were associated with the periodic flowering of at least three different plant species [CS; GW; HM; JB; PF; WN], or the insects attracted to them [CSp; SJ]. These indicators were summarised by [JM] observation:

...When the flathead flower, that was the capeweed, the dandelions, and the ti-tree flower bloomed it was the fishing season again for flathead and snapper. The fishermen payed off their debts and life became affluent again.

These observations are which are outlined in further detail in Appendix E-4. These signs were vital components of the fishers' landscapes that contributed to both the economic and cognitive well-being of the community. Furthermore, as many of the Queenscliff fishermen often relocated to follow the wandering fish schools, these indicators also were also important signals for determining the migratory fishermen's habitats. The veracity of these observations was observed by the author, where the seasonal blooming of ti tree flowers and the appearance of blowflies coincided with local newspaper fishing reports of the beginning of the snapper season (Kitchen 2003:39).

The examples of seasonal fishing indicators were accepted amongst most of the fishermen and other local residents. Interestingly however, a pilot [CSp] indicated that bogong moths were also an indicator of the snapper season arrival. This may illustrate the differing cultural landscapes of the varying maritime industries in Queenscliff, and could reflect external observations that were made by the pilots, who often lived/worked up to 50 km away in Williamstown. Furthermore, detailed knowledge of other marine species included the cyclic arrival of *Nautilus* shells every seven years in Swan Bay [DB; GW].

The seasonality of fishing, and types of species availability is an essential component that has shaped the Port Phillip landscape, and is an observation that is consistent with many other fishing landscapes, where seasonal indicators similar to those above have been observed (e.g. Goldsmith Carter 1945:19, 35; Johannes 1992).

II) Geographical Knowledge of Fish Species Habitats

Different fishermen targeted different fish species, and it became clear during the study that not all fishers accessed all types of marine life. Additionally, many fishermen used different markers and indicators to relocate and access their chosen species. Although most respondents interviewed were happy to share their knowledge of general fishing localities and marks, some indicated that there

were secret spots and/or favoured locations that were held by only a few members of the community and were closely guarded as familial heritage [LID]:

George Jurgens knew all the crayfish spots in the Bay...It was local knowledge passed down from father to son. He told Harry Mouchmore about some of these when he retired. Harry said he had been fishing the bay most of his life and never known about these spots. It's a pity, most of those spots went to the grave with him. [GW]

The differentiation of access locations and species exploitation demonstrates that within the fishing community there were multiple individual fishing landscapes, even within the same species fishery. This is reminiscent of other indigenous maritime communities, where traditional knowledge of fishing sites and practices are closely guarded secrets. This is perhaps best demonstrated by the comparison of two fishing landscapes described by two fishermen - Harry Mouchmore and Colin Shapter of similar ages and fishing vintage (Figures 6.8 – 6.11). Both exploited cousta, but Shapter showed a greater specialisation towards net fishing, but as can be seen, their respective use of the same maritime arena is starkly different. Mouchmore's fishing landscape was also more dependent on seasonal movement of cousta, which led him to exploit areas further to the east and west than those indicated by Shapter.

III) Recognition of Ecological Change

Numerous fishermen demonstrated recognition of long term ecological changes in The Bay and surrounding waters, and most recognised the web of symbiotic ties between many marine resources, and the subsequent effects of over-exploitation of one marine species on another. Consistent observations regarding the effects of krill and/or squid harvesting in Antarctica were made by several fishermen [LID]:

The cousta feed on Brit (krill), and often you would cut a cousta open and its belly would be full of it. The Russians and Japanese were taking tonnes of anticarticus, and that affected the fishing in Lorne and Queenscliff. It really affected the amount of fish we were taking. It led to the cousta leaving the coast. [HM]

A summary of other observations is presented in Table 6.3. Similar observations were made by [BM] regarding cousta fishing from Queenscliff and Westernport Bay:

There were once thousands of acres of cousta in Bass Strait. They come home from the Antarctic. We would shoot cousta nets and catch enormous amounts in a day. We were not to blame for their disappearance. That was because of the Aluminium oxide plant and the 17 sewerage outfalls around this area [Westernport Bay]. It kills the spawn and whitebait. There used to be acres and acres all over the bay. The gannets and terns were all over there diving for the fish. They used to mass over the shallows, and there would acres of bird shit on the seagrass, the birds used to provide the fertilizer for the seagrass.

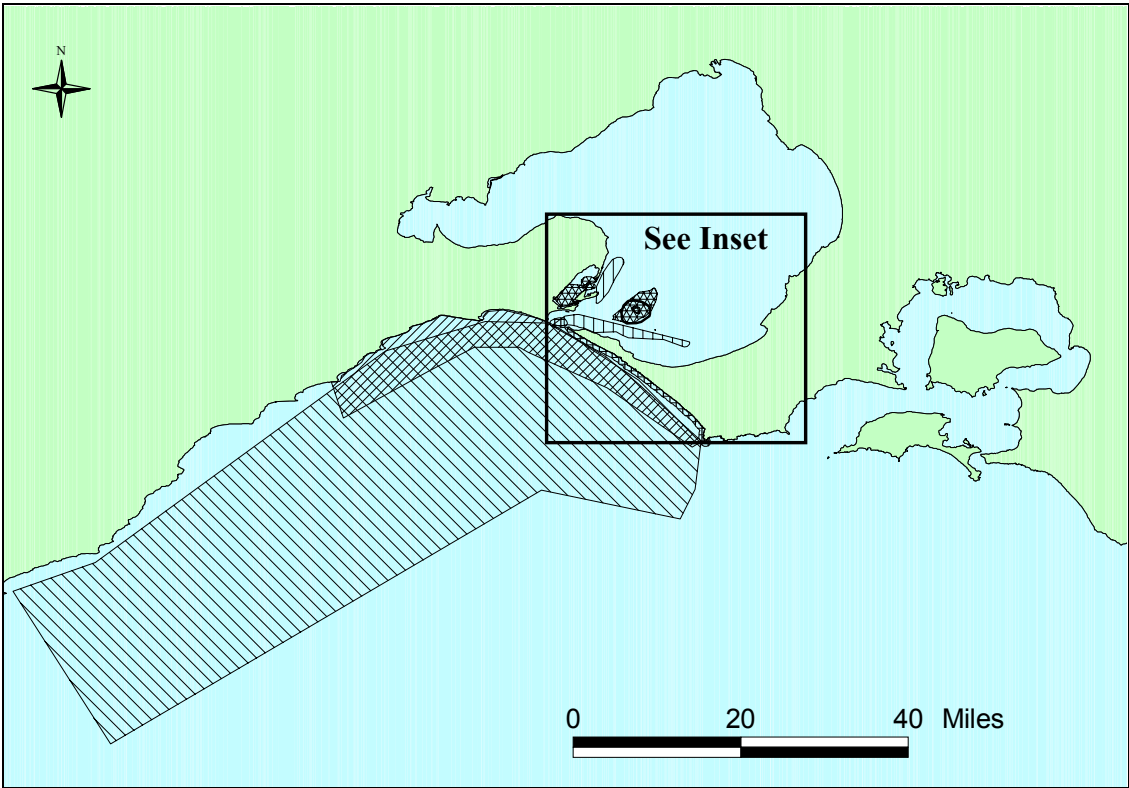


Figure 6. 8: Regional fishing areas exploited by Colin Shapter.

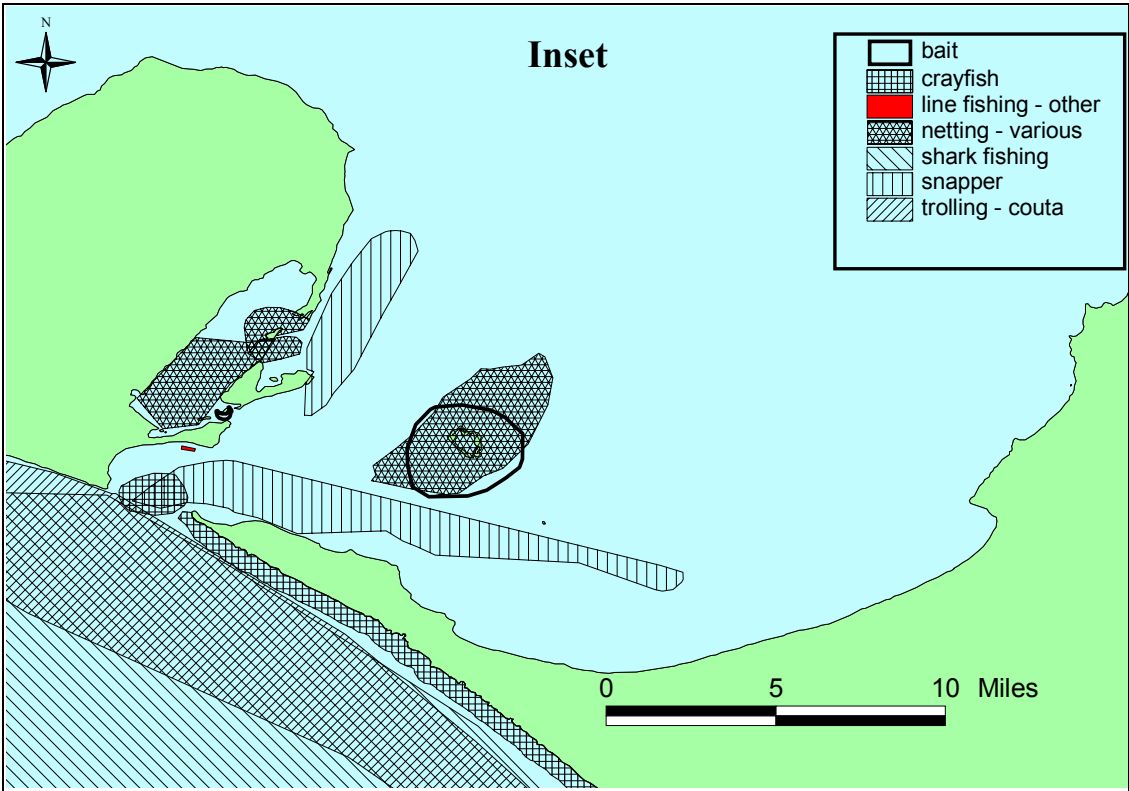


Figure 6. 9: Local fishing areas exploited by Colin Shapter.

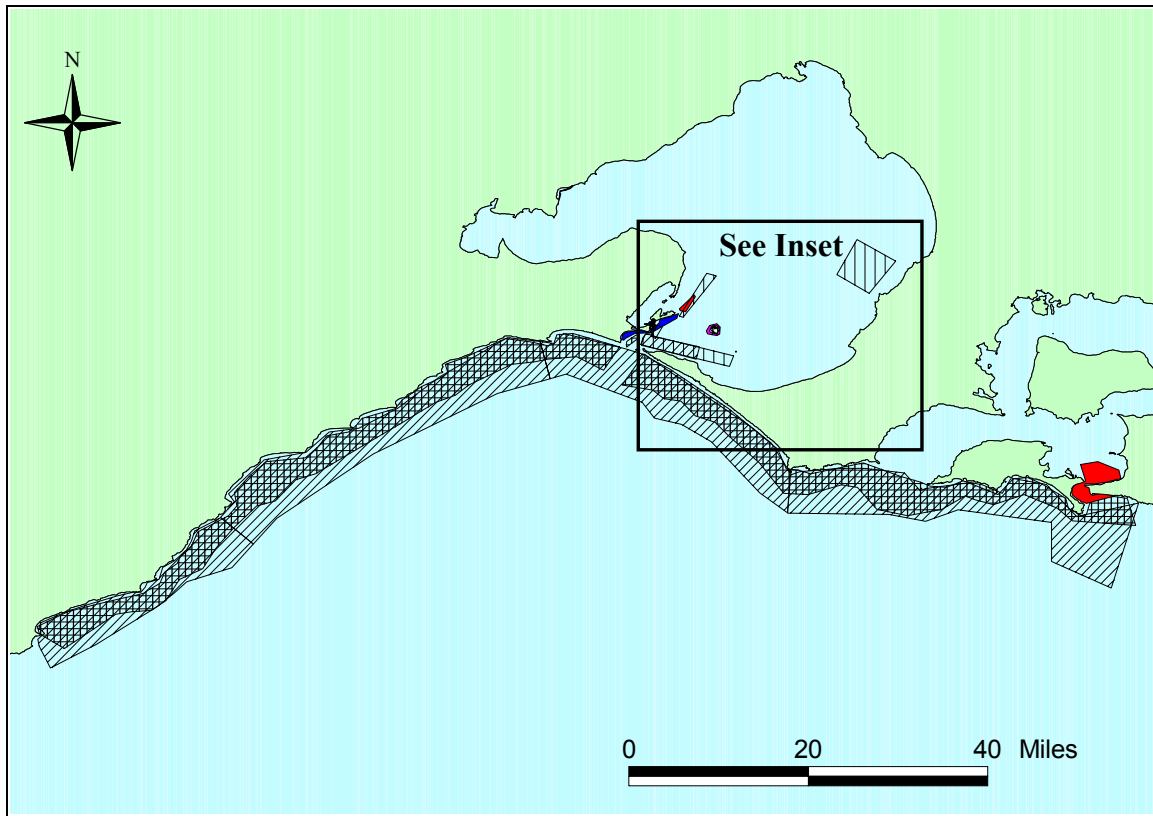


Figure 6. 10: Regional fishing areas exploited by Harry Mouchmore.

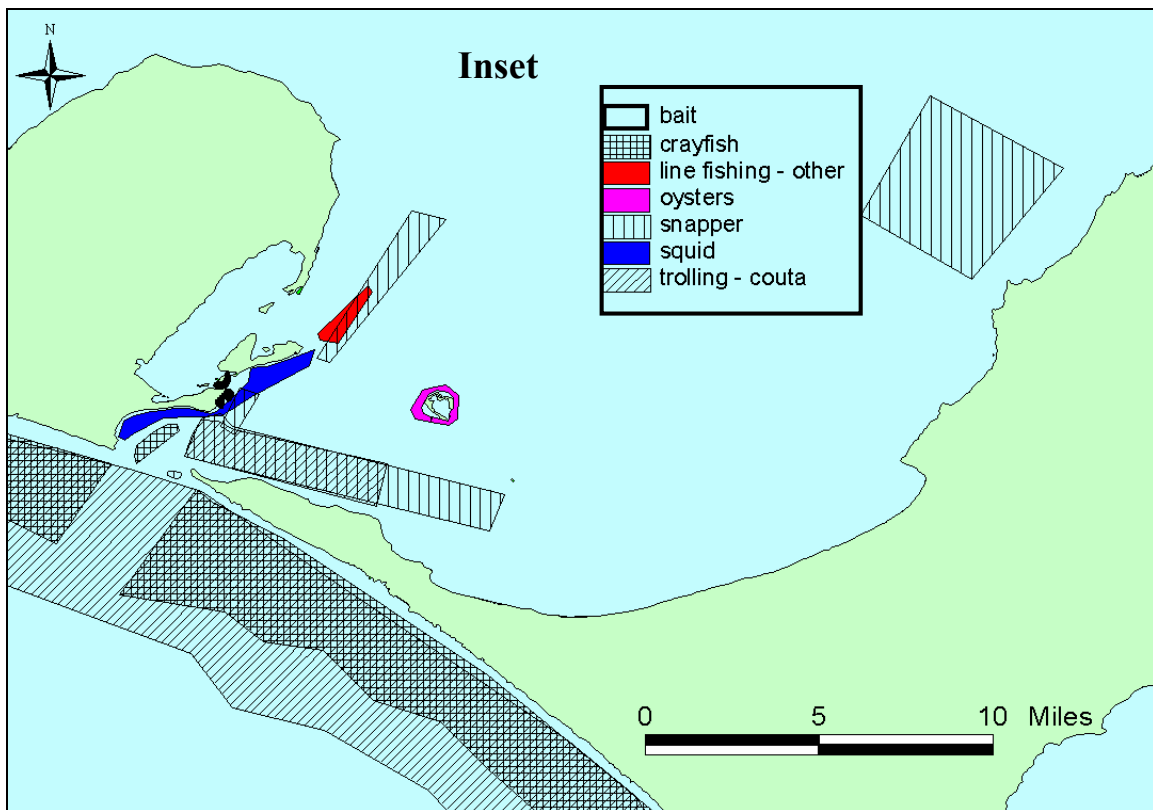


Figure 6. 11: Local fishing areas exploited by Harry Mouchmore.

Now the seagrass has disappeared too, and there is nowhere for the fish to hatch. There are no couta here this season, and only a few in Queenscliff. [BM]

Although these observations signify a measure of territoriality expressed at the perceived invasion of local fishing waters by foreigners, they also suggest a degree of hereditary knowledge and understanding of the region's ecological balance, along with some level of perceived custodianship of those local resources. Verification of these observations was beyond the scope of this study, but may be of potential interest for future research.

Fish species exploited	How	Fish species affected	Result	Source
krill	overfished in Antarctica	couta	decreased numbers	[HM]
cockles - Swan Bay	overfished	cockles	disappeared	[LID]
gummy sharks - PP Bay	overfished	octopus and spider crabs	Infestation of	[CS]
salmon	longlining - overfished	salmon	decreased numbers	[CS]
squid	overfished	salmon	decreased numbers	Ferrier 1991

Table 6.3: Fishermen's observations of the effects of overfishing of economic fish species.

C) Other Ancillary Resources

Many other resources were used by fishermen for their industry, or for subsistence and daily survival.

Some of these resources were used to either maintain or build essential fishing equipment. Several fishermen reported that local ti-tree (*Melaleuca*) was used for the construction of crayfish pots [CS; HM], and also to construct fishtraps, which were used to catch fish for bait [PF]. This material was collected from the foreshore area at Rye on the north coast of the Mornington Peninsula, and could later also be bought from the same area [HM]. Similar practices were undertaken by fishermen at Rhyll (Westernport Bay), Port Welshpool and Sealers Cove (Wilson's Promontory) (Kerr n.d.:29-30).

Cotton nets and ropes used by local fishermen had to be tanned to protect them from rotting from exposure to salt water and jellyfish. The fishermen tanned the nets and ropes in backyard concrete or cut down corrugated iron water tanks using a saturated saltwater solution of tannin from local wattle tree bark (sourced from Swan Bay/Island, and the Bellarine Peninsula, [CS; LID]). Wattle

bark solutions were also used by coua fishermen to tan the baited fishing lines and small burley nets inside heated 44 gallon drums [HM].

A marine seagrass known locally as eel or swan grass (*Zostera muelleri*), was used extensively throughout the township for the lining of houses (especially in the fishing community) and other public buildings where it was stuffed into the recesses between the walls and ceilings [LID; PF]. The string-like grass was sourced in great quantities from Swan Bay, especially during the winter months, and had excellent insulation properties for both sound and heat, and resistance to burning and rot [GW; LID]. These qualities also made the seagrass suitable for insulation inside locally made (Jonette) briquette hot water heaters [LID]. Swan grass was also harvested in commercial quantities along the eastern coast of Westernport Bay until at least the 1970s for housing insulation in Melbourne [BM]. Similar practices using marine resources (e.g. reeds, shells) and other agricultural produce discard (e.g. oat and corn husks, walnut shells, straw) for insulation were known in Suffolk and East Anglia in England until at least the 19th century (Evans 1966: 43-4).



Figure 6. 12: Charles Zanoni, fisherman and craypot maker (Photo PH284, QHM Collection)

D) Alternative Food/Other Resources

Wild rabbits formed a major component of the fishers' diet, and many recounted the importance of rabbitting as part of their childhood [CS; LID]. Rabbits were introduced by fishers as a food source to the Mud Islands, and had reached plague proportions in the area by 1912, causing denudation of vegetation in many areas (QS 11/5/1912; Yugovic 1998:90, 96-7). Many fishers stated that their families might have starved if rabbits had not been available to supplement their

diet [CS; LID]. This situation was common in many other Victorian coastal towns, especially during the depression and WWII (Hunt 1999:9, 29).

Local game were also heavily exploited by both the fishing and local communities, particularly from around Swan Bay, Swan Island and Lonsdale Lakes. Ducks, quails, and swans were shot using specialised duck punts (Figure 6.13), and eels were taken from the creeks to supplement fishers diets [CS].

Common Name	Scientific Name	Use
Black Boy/Grass Tree	<i>Xanthorea australis</i>	Sap used to stain furniture. Collected by Jack Clay after fires and mixed with shellac and turpentine to stain timber. Also used by local Indigenous people to waterproof their water containers.
Bearded Glasswort	<i>Sarcocornia quinqueflora</i>	Burnt for potash for glass manufacturing.
Bower Spinach/ Warrgul Greens	<i>Tetragonia implexicoma</i>	Eaten fried or boiled as a substitute green vegetable during depression - and tasty too!
African Boxthorn	<i>Lycium fero cissimum</i>	Used by Military as a natural alternative to barbed wire.
Chinaman's Bread	<i>Malva australiana</i>	Segmented fruit bearing plant – eaten.
Coastal Beard Heath	<i>Leucopogon parviflorus</i>	Berries used by Indigenous People and children - white berries size of pea available in Jan and Feb. Tastes like a nashy pear.
Eel Grass/ Swan Grass - angiosperm	<i>Zostera muelleri</i>	1. Insulation in buildings and heaters. 2. Mulch to grow asparagus.
Flat leafed Sedge - Reed/ NobbyClub Rush	<i>Lamanda</i>	Used to make baskets.
Kelp		1. Manure for gardens. 2. Indigenous people rolled kelp into rolls to sustain them during inland hunting trips - provided basic sustenance. 3: Used to make tennis balls for children.
Kelp/ Seaweed		1: Potash/ Iodine/ Bromine - industry suggested, unclear if exploited. 2: Local use as an antiseptic for cuts.
Old Mans Beard	<i>Clematis aristata</i>	Indigenous people used the fluff from this bush to line the cradles for babies.
Ruby Salt Bush	<i>Enchylaena tomatosa</i>	Used by Indigenous people as a red dye.
Sour Sobs	<i>Oxalis pres-carpae</i>	Used by children to clean coins.
Ti-tree - Melaleuca	<i>Leptospermum & Levagantum</i>	Craypot/ fishtrap manufacture.
Wattle (Acacia)	<i>Papanacia vilbata melan</i>	Bark used for tanning fishing nets and lines.

Table 6.4: Exploited indigenous and wild exotic plant species.

Numerous indigenous plant species from around Swan Bay were exploited by the fishing community and other sectors of the community, especially during the depression in the 1930s when

many families could not afford vegetables [DS; WN]. A summary of alternative uses of indigenous plant species is outlined in Table 6.4.

The location and traditional knowledge of the use of these sources represents important components of the fishing cultural landscapes. An expanded synopsis of these resources and oral histories is included in Appendix E-5.



Figure 6. 13: Duck punts on nearby Reedy Lake, Moolap c. 1920s. Similar craft were used on Swan Ponds (In Wynd 1988 – Photo: Mrs T. McAllister).

6) Supplementation of Fishing Income

Due to the variability of the industry and often large families, many fishermen often supplemented their income with other ancillary occupations and activities when times were hard. This was especially the case during winter, when the couta fishing ceased and fishers lived on the proceeds of the previous season [JB]. Many people commented that the fishermen's meager budgets meant that they were better equipped for hardship than other sectors of the community:

...the depression only brought slight changes in lifestyle for the fishermen, but they could get by. They used to fish and sail to survive. It hit the city people more. They had less candles and other things, but they used the barter system. Tourists were welcomed as a local source of income. They bought fish direct from the wharf. There were no transport costs to Geelong, and no taxman involved. [PF]

All members of fisher families often undertook alternative work, or exploited other resources to supplement their income. Many fishing families rented their houses to tourists in the summer, and the family would occupy a smaller cottage at the rear, accommodate their children in tents or sleep-outs, or spend their holidays with other family around the Peninsula (Ferrier, 1989:17 [DS; WN]). A fisherman [CS] recalled: "The guesthouses would take people in the summertime. People would

let their houses in summertime, and live in a batch in the back of the houses”. The money gained from the rent would be used to pay the rates for the next year [LID; WN].

Fishermen, particularly in the latter half of the nineteenth century, were often engaged as boatmen and offered unofficial ferry services across The Bay. However, the Customs Department discouraged this practice after several accidents, and by 1892, a licence was required to operate a boat for passengers outside the Port of Melbourne (QS 10/12/1892). The practice continued though, and in 1894, three fishermen were charged for rowing passengers to Portsea and Rye without a licence (QS 10/3/1894).

Fishermen exploited whatever financial opportunities that was available to supplement their income. These included: work in the lifeboat service; discounts for sails displaying advertising [CS; PF]; rabbiting for skins and carcasses (Ferrier 1989:20); glass recycling; boatbuilding [PF]; and raising chickens [WN]. Fisher families were often innovative in their approaches to earning extra income. One fisherman’s young son established a fish hawking business, when he discovered he did not like fishing. He delivered fish to Pt Lonsdale, but the boy’s initiative was not appreciated by other fishermen, as until then they had conducted informal fish sales direct to customers at the pier and a hawkers licence was required to sell outside those areas [LID].

7) Intangible Traditional Knowledge

A) Weather Forecasting and Topography

Port Phillip Bay is known for its extremely wild and changeable weather patterns. There are many instance of fishing boat losses, along with their crew. Accurately predicting the weather was therefore an essential aspect of survival for bay users, especially the fishermen who frequented the dangerous inshore areas in pursuit of catches. Most fishermen used conventional weather prediction techniques, such as the barometers which were installed on both the piers [CS], but prior to this time mariners had to predict the weather themselves based on their own experience or inherited knowledge. Many fishermen demonstrated a broad recognition of local weather patterns that could only have been derived from many years of seasonal and tidal observations, and probably originated from many generations of inherited ancestral observations of the Bay’s environment.

Fishers used different observations to determine possible weather and ocean conditions. These included subtle colour changes in the water; body temperature changes (touch); bird movements inland, or prolonged roosting of birds on nests; subtle changes in wind direction, movements of boats at anchor and cloud shapes/ movement; stock movements to avoid wind; onset of headaches or arthritis; frogs croaking; cobwebs in rigging; and increased visibility of distant features (to herald bad weather). Some of these weather predictions have since been observed by the author, and have been noted to be uncannily accurate. Further details of these traditional weather observations are contained in Appendix E-6. Similar practices have been made elsewhere around Australia and worldwide in European and Pacific Island communities (Goldsmith Carter 1945:11, 14, 25; Evans 1966:164; Gladwin 1970; Wurtele 1971; Lewis 1976, 1994; Kerr 1987: 85, 166, 170; n.d.:21).

B) Folklore, Superstition, Luck and Religion

The Queenscliff fishing community demonstrated a rich oral history that was full of ancestral tales, historical accounts and meanings associated with places and events. Additionally, several informants alluded to a number of superstitious beliefs and folklore traditions that were embedded within the fabric of the fishing community. Access to these stories was difficult, and some stories were clearly only known to selected community members. It was not always clear if these were just recounted stories, or if they were practiced ideologies in some sectors.

Several fishers unexpectedly related a number of superstitions which were predominantly related to avoiding bad luck. It was bad luck to bring wild bird eggs [CS] or peacock feathers [CS; JB] into houses, even though bird nesting to collect eggs was a popular activity amongst fishers' children (Dod1931:93; [HM]). The age old tradition of placing coins under masts to pay the ferryman of the dead (Delgado 1997:64; Jeans 2004:306) was also practiced in Queenscliff [HM; JB; PF] and Lorne (Hunt 1999:92) until tabernacle (hinged) masts were introduced [HM]. Many superstitions appear to have been introduced with the arrivals of immigrants, such as where one Scotsman who would refuse to go out on a trawler if a seagull landed on the mast due to the ominous overtones [JB]. Another belief common in fishing communities worldwide was observed in 1863, when three Chinese fishers died after their countrymen would not go to their assistance as they were superstitious about rendering assistance to drowning men (Simpkin n.d.:10). Some of these observations have potential archaeological ramifications, particularly the practical demonstrations of votive offerings (under masts), and might also explain the surprising lack of native birds' eggs in fisher dwellings which might normally be interpreted as a lack of exploitation of those resources.

Some fishermen stated that there was an unwritten lore regarding boating activities on a Friday: “you wouldn’t launch your boat on a Friday, it was bad luck. You wouldn’t launch on a Friday even if you had won lotto” [CS]. A former boatwright with the Pilots’ Service confirmed the existence of this practice [JB]:

No, they wouldn’t do it. That came from England, the superstition. It was all the fishermen. They wouldn’t do it, wouldn’t launch on Fridays. If a boat had just been finished being built, and it was ready by the Friday, they would launch it on the Thursday, or delay it to the Saturday or Monday. No, they wouldn’t go fishing on a Friday either. It was bad luck to go fishing on the Friday. One bloke had his boat up on the slip and he went to launch it on a Friday, and he broke his mast when someone forgot to open the door properly, and the mast broke on the way down. There were also no markets on a Saturday, so you couldn’t sell your fish if you went out then. They fished from Monday to Thursday, and Thursday’s fish was sold at Friday’s market. They worked on the boats on their days off, went to Geelong to go shopping and mowed the lawns. Things like that. The small boats that worked inside the Rip sometimes caught snapper on the Friday. They kept fishing as they had local markets at Geelong and Queenscliff, and would sell them on the pier. [JB]

Although other fishermen (e.g. [HM]) had no knowledge of this practice, this suggested that this was a personal belief limited to individual families. As noted, some fishing vessels that worked inside The Bay sometimes did work on a Friday [JB]. Mullen (1969: 211, 219) has suggested that the incidence of superstition amongst fishermen was directly related to the amount of risk they were exposed to, and has observed similar behaviour in Texas, where inshore fishing vessels may risk breaking the taboo as they were less exposed to the dangers experienced by offshore fishermen. This worldwide phenomenon was related to the crucifixion of Christ on a Friday (Kemp 1992:847; Jeans 2004:308). Mullen (1971:407) recorded that this belief amongst American fishers originated in England, which may also be the case in this study area.

Similarly, fishing on Sunday, the traditional Christian day of rest, was originally discouraged amongst local fishermen in the early years of the township. In 1893, when some non-Christian fishermen began working on that day contrary to popular religious beliefs, Queenscliff fishers complained to the Customs Minister that the day was being desecrated (QS 3/6/1893); by July that year, all the fishermen in the town had agreed not to fish on that day. However, this effectively meant that there were now three days that the fishermen did not take a catch, as any fish caught on Saturday usually spoiled before getting to market on the Tuesday (QS 1/7/1893).

These beliefs and practices were to have marked effects both locally and regionally, especially on the Melbourne Fish Market, where fresh fish were available from Tuesday to Friday, but meant that

the fish market was closed on Mondays as no fresh produce was available [BM]. This practice appears to have changed in later years with the advent of freezing:

...before the co-op was established, there was nothing to do [but fish]. Most fishermen fished on Sundays to get a catch for the market the next day. If you didn't fish on Sundays you missed a day supplying the market. After the co-op was built, you could fish any day as they could freeze it, and you weren't dependent on supplying fish fresh on market days only. [GW]

The constraints of religious observance on fishermen during similar historical periods were also observed in the UK (Hunter (1994:262; Parker 1995:94) and the USA (Procter 1873:92; Collins 1882:126–7; Mullen 1969:218). Some informants maintained that many traditions and beliefs originated from the UK [JB], particularly those regarding Friday boating prohibitions (England) and seagulls on masts (Scotland).

The first Blessing of the Fleet ceremony to be undertaken in Australia was conducted by a Presbyterian Reverend (W. F. Hart) at Queenscliff in 1935 [LF]. This ritual was undertaken to place a blessing on the fishing fleet to ensure their safety from inclement weather over the coming year, and a ceremonial cross was thrown into the water as a symbol of Christ's blessing on the water. The service represented a ritual cleansing of evil from the sea, and/or a votive offering to the sea god (in this case Christ) to offset bad weather, which may have earlier origins in pagan rituals. Blessing of the Fleet ceremonies became popular social events, which often overshadow the spiritual component of the ceremony (Broeze 1998:191), a sentiment echoed by [GW] who noted that: "it was more for show" [than religious purposes].

Despite the observations above, religion did not appear to have played a major role amongst the majority of fishermen, particularly in mid twentieth century [LF]:

Fishermen weren't religious, not a bit. The only time they had seen a church was at weddings and funerals [and christenings]...I once heard a minister say that Queenscliff was the most unreligious town he had been in. [GW]

Other beliefs were centred around more practical concerns. Fishermen in Port Phillip Bay have always feared and respected sharks which followed snapper and mullet schools into The Bay. Sharks were problematic as they usually stripped fish from the line before the catch could be hauled in, and were known to attack boats if the fisher attempted to haul aboard a hooked fish that they were chasing ([HM; PF] QS 4/11/1899). In most cases fishers surrendered the fish to the shark, but some took catastrophic risks:

[A fisherman] was fishing on the snapper beds once and was losing a lot of double enders as there was a snapper shark there, and he was losing a lot of fish. He decided to go for it and get both fish in before the shark took it. As he reeled the fish over the side of the boat, the shark leapt out over the back of the boat, and [he] fell over backwards into the fish well, and had to fend the shark off with the tiller. There were teeth marks on the boat to prove it. [He] was as white as a sheet when he got back, and staggered into the pub to tell his story. He was shaking so bad he could hardly hold his beer. [PF]

[PF] recalled that this sometimes influenced the designs of boats:

Fishermen would also not paint their rudders white, as it attracted sharks. It was my understanding that if you were fishing on the snapper beds...if you painted your rudder white you were more prone to damage when trying to get the snapper in ... because the reflection of the rudder as it moved [if painted white] used to attract the sharks to the boats.

Another circumstance was detailed where fishermen at Port Welshpool supposedly increased their catch of barracouta by attaching a mirror to the bottom of their rudder, but this ruse which was designed to fool Gippsland fishermen (who were unfamiliar with couta fishing techniques) shows the receptiveness of the fishing community to integrate and adopt new folkloric ideas regardless of their seemingly inane methods:

When Jocka Todd and Smacka Jackson went down to Port Welshpool, they cleaned up. They told all the locals that they had put a mirror on the bottom of the rudder, and that this attracted the fish. Within weeks everyone there had a mirror on the bottom of their rudders, but they [the Queenscliff fishermen] had only been putting it over them. [HM]

Fishermen also gutted their fish out to sea, so as not to lead sharks back to shore around the piers. Fishers recognised that sharks were intelligent enough to follow net and line boats as they knew that fish would be caught near them (QS 23/3/1907). The Lorne Pier was apparently free of sharks until a fisherman broke the rule and gutted fish whilst tied up alongside, and there have been sharks there ever since [HM; LID; PF]. This observation has implications for expected archaeological remains for fishing sites, and might explain the lack of fish cleaning facilities in the Queenscliff area.

Although tall fishermen's tales of sharks abound and have been incorporated into local lore in various forms, they appear to have a thread of credibility in most accounts given their similarities to other historical accounts, which were told and retold to the author on many occasions. These forms of folklore tales represent parables in which social history is recorded, but that also reinforce the underlying need for caution when dealing with sharks. Their significance therefore lies not so much in the facts of the past, as opposed to its' implications to that society, a notion which is consistent with Gazin-Schwartz and Holtorf's (1999:13) observations of folklore meaning. These forms of stories also provide insights into cognition and perceptions that are often not accessible elsewhere.

The threat of shark attacks may also have produced tangible modification in vessel designs, albeit subtle avoidance of the use of certain colours. An expanded examination of superstition and folklore is included in Appendix E-7.

It is clear from the above accounts that local legends, folklore and superstitions in their many forms affected not only the perceptions of the community, but also left tangible remains of their existence. These notions are therefore important aspects of the local landscapes.

8) Fishing Community Landscapes

A) The Fishermen's Flat

As previously mentioned, the Fishermen's Flat formed the hub of the Queenscliff fishing community. Small fishing shacks and houses were erected in this area, along with personal storage sheds and other facilities used as part of the industry. The location of the Flats on what was considered wasteland further demonstrates the isolation of the fishing community from the rest of the community (which is discussed further in Chapter Eight).

B) The Fisherman's Pier

A pier which had been built at the eastern end of Wharf St in 1856 to service small cargo steamers ("Bluelight" 1912) was linked to Queenscliff via a 15 ft wide raised plank road (built on 3ft high blocks) that was constructed in 1857 to traverse the marsh area from Gellibrand St to the pier (Dod 1931:19; Cuzens 1912:1). A lifeboat was added in 1856 along with a lifeboat shed in 1860 (Fanning 1892b). The pier was extended several times over the years due to siltation problems, with a northern arm added in 1860, a crane and tramway in 1861, and further lengthening in 1870, 1872 and 1875 (GA 21/7/1875:2; Sutherland 1888b:58; Raison, 1987:23). This pier became the focus of maritime activities in Queenscliff for many years. It was used by fishermen to offload produce, for boat maintenance and as a meeting place, and also acted as a wharf for various Bay Steamer tourist ferries from the 1870s onwards. With the opening of the Geelong to Queenscliff railway in 1879, fish were then transported to Melbourne via rail, and a branch line to the pier from the new railway station to service the fishermen's deliveries to Melbourne was constructed sometime after 1893 (QS 22/7/1893; Cash 1910 plan). Two sheds were located at the end of this line, the fish shed (used to load fish onto railway carts) and the pilots' coal shed (used to provide coal to the pilots boats), and by 1930 the coal shed had been replaced with the Ports and Harbours

Buoy Shed (Allom Lovell 1984:161). Although the spur line has been removed, its route (until recently) was still evident in a series of laneways through the Fishermen's Flat.

When a new pier was built to the south to service the deeper drafted Bay Steamers in 1884/85 (VPRS 2143: 84.5/257), the original pier was renamed the Fishermen's Pier (QS 10/5/1884; VPRS 2143: 84.5/257). The Fishermen's Pier became a central component of the fishermen's landscape being used to launch dinghies, repair boats, store equipment and offload fish (see Figures 6.15 and 7.16). It was a working pier as opposed to the Steamer Pier, and housed four pier sheds (Rope, Fishermen's, Lifeboat and Slip sheds) which were used respectively to store rope and tackle (but was originally built for fish storage with a concrete floor); for social gatherings; sea rescues; and a slipway winch was used for boat maintenance and removal of fishing boats onto the pier in rough weather [GW; LID]. A tramway line ran the length of the pier and was used to transport fish from the boats to the Fish Shed which stood at the base of the pier [LM; Cash 1910 Plan]. When the seafloor around the Fishermen's Pier began to silt up, fishermen temporarily used the New Pier until the former was extended in 1913-15 (QS 21/11/1908; [LID; PF]). The Fishermen's Pier functioned not only as a central workplace, but also as an important social hub, where fishermen congregated daily prior to embarkation for the days work [CS; GW; HM; PF].

Around 1890, an island pier (commonly known as a "dolphin") was built between the two piers. It was used for secure craypots and net storage, and a coal shed was constructed on it to supply fuel for the cross Rip military delivery vessel *Mars*. The dolphin also aligned with the dogleg extensions of the both piers to provide additional shelter for the fishing fleet in bad weather in the enclosure between the piers and to the north of the Fishermen's Pier (Allom Lovell 1984:162; [LID; LM; PF]).

In 1889, after canvassing from a number of "agitators" within the community, a third major pier was proposed under the fort at Shortland's Bluff. In June 1889, the Commissioner of Customs visited the township to assess the necessity and possible location for the new jetty. The jetty was opposed by the Defence Department, due to its proximity to the fort, and by a number of community members, who lamented the slow progress of the New Pier, and that the proposed construction of another pier would either divert badly needed money away from it, or sink both projects. The new jetty's location was proposed under the site of the lighthouse, and would extend into 27 ft of water at a cost of £8500. It was advocated that ocean going steamers would be able to unload here in preference to Williamstown, which could have had major implications for the

development of Queenscliff as a major international port (QS 22/6/1889), but the structure was never built.



Figure 6. 14: Fisherman's Pier (on right) 1925. Note fishermen's moorings between piers and to the north (Photo C. Pratt, Image b14708, SLV Collection).



Figure 6. 15: "Fishermen's Jetty", c. 1908, showing Fishermen's Shed (centre) and Fish Shed on right (Image a03485, SLV Collection).



Figure 6. 16: Unloading fish at Fishermen's Pier. c. 1940s (Photo: QHM Collection).

C) Fish Marketing Companies, Associations and Local Transport Networks

The remoteness of Queenscliff from a major city was always a problem for fishermen, as the fish had to be transported to market before they spoiled. Prior to 1879, fish were transported to Geelong via a fish cart (Raison 1987:7) or were reliant on the regular Bay Steamer services, a coach service, or an arrangement where fishers shared the task of sailing the entire catch to market the next day [CS; GW; LID]. Several fish marketing companies were successively established at Queenscliff between 1859-1878 (GA 26/4/1867:3; Raison 1987:7), but the opening of the Geelong to Queenscliff Railway in 1879 dramatically expanded the scope and viability of the Queenscliff

fishing industry to include Melbourne, Ballarat, Bendigo and Portland. Although established for the military (GA 13/9/1877:2), the railway became an integral component of the fishers' landscape. Despite daily train services with special louvered cars for ventilation from the mid 1890s onwards ([CS]; Evans 2003:93), fish still spoiled enroute when trains were delayed, a situation which in 1917 led to the importation of ice for packing market consignments; by 1938 a local iceworks was opened for this purpose (Raison, 1987:7, [LID]). By 1933, fish was transported to market using trucks ([JP]; Raison 1987:7).

From a very early period, the fishermen also began organising the distribution of fish. The first of a series of professional fishing associations was founded in 1864 to protect fishing interests, which began marketing large quantities of fish in competition to other suppliers (GA 7/2/1866; Raison 1987:8). When an oversupply of fish at the Melbourne market in 1892 saw good fish condemned for lack of demand, local producers realised that they needed a mechanism to control fish supplies so as not to produce a glut (QS, 10/12/1892), and fishermen subsequently imposed their own quota system to limit their daily catch:

There were 30-40 couta boats in the early days. There were usually three people onboard, a father and two sons. Boys 14-16 were allowed a quota of 3 boxes, and men could have six boxes a day. The quota was imposed by the fishermen to keep the price stable on the market. It was tough until after the war. [HM]

The formation of the Queenscliff Fishermen's Cooperative in 1949 allowed fishermen a degree of certainty regarding catch prices, as fish were now sold to the co-op at a daily fixed price, and fish could be held back to avoid a glut and low prices at markets (Raison 1987:8; [JP]). An expanded history of fish marketing companies and Fisher Associations is presented in Appendix E-8.

D) Changing Fishermen's Landscapes

I) Fishermen's Anchorages and Moorings

The landscape of fishermen's boat mooring areas changed many times as new maritime infrastructure was built in the area. In the early days of the settlement, fishermen would shelter their boats into the waters of Swan Ponds via "*The Creek*" (as it was known), which was a shallow bar inlet located between the shifting spit of Chinaman's Point and Swan Island. Several fishermen or recreational yachtsmen moored their boats below Swan Hill in Swan Bay, and piles from a small jetty and tie posts are still located in this area [CA]. Several small piers existed in this region, including Tobin's Jetty behind the Railway Station (QS 24/12/1910), which were used until the

installation of a low bridge to Swan Island prevented boat access via the bar. This location was only accessible in calm conditions, and during unexpected bad weather fishermen trapped outside The Creek were forced to shelter behind the northern extremity of Swan Island or in Stingaree Bight. [HM] recalled crossing the bar:

The sea used to break through [the Spit] naturally in a big sea, and the entrance would move up and down from Swan Island. But it was not deep enough for the fishing fleet to sail through loaded up, so we would throw our ballast out at the pier and sail in on an angle to the landing at Swan Island. The ballast was pig iron and fireplates, which was all we could get as we couldn't afford lead. We used to go to Swan Island in a big blow. We had to get permission to go to the island at Swan Island. They had an electric rail across the bridge to Swan Island to take the workers to the naval area. There was an old bridge that the trolley went across.

When Swan Island was taken over by the military in the late 1870s, the fishermen were allowed to continue this practice, and usually moored to the defence jetty (built in 1882) or laid their own moorings in Stingaree Bight. The fishermen were then transported via a horse drawn cart (and later an electric tramway) over the island back to Queenscliff (Raison 1987:24-5).

The area between the two piers was used as a semi- sheltered area for fishermen after the construction of the second pier in 1884. By 1894, there were at least 50-60 boats moored between the two piers (QS 7/4/1894), and the area developed into an important mooring area for fishing boats. Couta boats were moored in this area in moderate weather, but were pulled up on the shore between the two piers during onshore breezes, or taken around to Swan Island during gales:

...the wind was usually off the land in winter. If the wind came onshore we would pull the boats up on the shore. If it was offshore we left the boats on the moorings between the piers. In Queenscliff we had one central anchor that we would free swing on, and you had your own area to anchor in. We used to go to Swan Island in a big blow. [HM]

A boat slip was added for the convenience of fishermen near the naval depot at Swan Island in November 1908 (QS 21/11/1908). The slipway was still accessible to fishermen in the 1930s [HM] and many used the facility:

Grandad had his boats in between the piers until the wind got up, when he would shift them to Swan Island to in between the Piers at the Navy docks. The fishermen were brought back home on the trolley, and they would bring the boats back when the weather cleared. There was a good relationship [between the fishermen and] with the army and navy [JB]

After lobbying by fishermen, new breakwater arms were built at the New Pier in 1911 and the Fishermen's Pier in 1913-15 (QS 19/8/1911, 8/4/1916), which added further protection for fishermen's moorings between the two piers, and more were later added to the north of the northern

pier ([GW; HM]; Larkin 1928, 1929 Plans). Boats could now be moored there in most conditions, but still had to be taken to Swan Island during gales ([HM]; Raison 1987:25). This practice led to the formation of cordial relationships between the Defence Base staff and the fishermen, who were forced to use the Defence Department's electric tramway to access their vessels.

The need for a new sheltered anchorage was sorely felt by the fishermen, whose vigilance was required to avoid damage to their boats moored between the two piers. After severe storms in late 1934 caused extensive damage around Port Phillip, work began the next year to install a permanent channel into Swan Ponds (Raison 1987:25). The new 80 m long canal (known as "The Cut") that was dug through the Queenscliff Spit at Chinaman's Point was lined with timber sheet piling (Figure 6.17). The venture was financed by the PHD (PWD), and was excavated in a few months predominantly by fishermen using shovels and picks and a horse drawn scoop [HM]. Access to Swan Bay still proved problematic even after the work was completed:

When it was first built, the cut finished up where the [current] slipway was. It would never run straight, it would start to bend towards Swan Island (at the entrance), and fishermen would have to go halfway up to Swan Island and then turn back. One bloke got stuck in The Cut after a low tide and it sanded up. They extended the length in the 1950s, as the end was silting up...all the sand on the other side of the creek [at Dutchie's Island] was pumped there by dredging. [GW]



Figure 6. 17: The Cut opening, c. 1935. Note the timber training walls on either side (Photo: PH215 QHM Collection).

The new channel was also referred to as "The Creek", a name which had been previously applied to the entrance through the Queenscliff Bar. Even though fishermen established moorings in Swan Bay, silting proved a problem, and a breakwater, sheet piling and causeways were built between the former northern end of the Chinaman's Point Spit and Swan Island to force water through the cut, and prevent water from breaking through the sand spit to form a new entrance. Despite all these efforts, constant dredging has been required for the area ever since, and the spoil which was pumped to the northern side of the creek has led to the formation of a new island (Dutchie's Island)

and alteration of the northern Queenscliff coast (Raison 2002:25). These structures also led to extensive flooding on many of the foreshore Flat houses in Beach and Bay St, as the water from Swan Bay backed up behind them as it was funnelled through the narrow gap [JP; PF].

In 1960, all civilian access to Swan Island was discontinued when the army took over the base there [LID], which then prevented its use as an emergency fishing boat harbour. The combination of these circumstances and the increased silting between the piers made the waters too shallow to safely moor at the same time, led to the construction of a new boat harbour that was dug on the southeast side of the cut in the newly formed land. A slipway was built at the western extremity of the basin in 1964 to replace the previous slipway located on the Fishermen's Pier, with a second slipway added by 1972. The basin was extended to its present size between 1975-1982. A trailer boat ramp was added behind Wharf St on reclaimed land in 1972, and a car ferry began operating between Queenscliff and Sorrento in 1987 (Raison 2002:26).

II) Boatbuilding Landscapes

Boatbuilding establishments and activities were essential components of the fishing landscape, with many boatbuilders having established premises in Queenscliff and Pt Lonsdale. The region's first boatbuilder, Anders Hanson originated from Denmark, and may have introduced Danish shipbuilding techniques into the area. The first boat builders in Queenscliff operated close to the open shoreline of Port Phillip Bay just above the high tide mark in Beach Street, and were forced to launch into exposed water over sand dunes. Subsequent boatbuilders who had their businesses at the top of Hobsons St behind the Vue Grand Hotel, probably also launched into Swan Ponds behind the current railway station. However, as the port evolved with the opening of the Cut in the mid-1930s, boatbuilding facilities were moved closer to the sheltered waters of Swan Bay, where an outlet to the deep water was now available. With the construction of the new harbour in the 1960s, along with two new slipways in the 1970s, boatbuilding activities moved closer to the centre the Queenscliff Harbour precinct. Eventually, as road transport networks improved, later boatbuilding, especially of smaller craft, decentralised outside the central borough region (Ferrier 1981, Kerr 1985; Raison 2002:10; QMM display; [PF]).

In most cases subsequent boatbuilders had been apprenticed to the previous tradesmen, who often took over the same business, and then trained underlings themselves, creating an unbroken generational dynasty of craftsmen. Most of the boatbuilding sites in Queenscliff were constantly re-

used for that purpose, and therefore boatbuilding landscapes in themselves represent ancestral landscapes, where the knowledge passed down not from family but from master to apprentice. An expanded history of boatbuilding in the area is outlined in Appendix E-9.

III) Boat Maintenance

Fishermen were also known to build boats in winter to survive [PF], and many undertook their own boat repairs. Several areas were significant for fishing boat maintenance around the town. Many coutha boats were careened by early fishermen along the shore of the Swan Spit beach up to as far as the Swan Island Beacon. The boats were dragged ashore on greased skids using block and tackle, were chocked on each side with timber poles, and then anti-fouled and painted (Dod 1931:27-8; [CS; LID]). Historic photographs reveal that the northern foreshore of the Fishermen's Flat was also used to careen boats around the late 1880s (Photos PH 10, PH 409, QHM - see Figure 6.18). Goldsmith Carter (1945:21-3) observed similar behavior in Kent (where fishing boats were launched and recovered using greased roller blocks), and in other places worldwide (e.g. Smolarek 1981:56).



Figure 6. 18: Boat slipping area, Swan Bay. Near the locality of the current Cut - c. 1890 (Ph 409: QHS Collection).

Several slipways were known to have existed in the area. These included those associated with boatbuilding (e.g. Lacco's informal launching area behind 31 Beach St, Cayzer's slipway at the end of Beach St and the slipway in the new Harbour). A new slip was built at Swan Creek in 1912 to allow boats to be slipped and cleaned after the crane was removed from the old Pier (QS 25/5/1912). Several informants [CA; GW; HM] recalled a slipway behind the train station that was possibly used by a yacht club and/or lifeboat [LID] and which was probably associated with

Tobin's Jetty. During the 1920s-30s, a slipway was based on the extremity of the Fishermen's Pier, which was used to slip vessels for maintenance, and vessels could also be pulled out of the water in rough weather and stored on the pier [GW].

The Gasworks was also an important component of the fishermen's and boatbuilding landscape. Monk (2003:10) recorded that tar from the gasworks was used to seal many a recreational flat bottomed boats used in Swan Bay, and this observation was repeated during interviews with fishermen:

When I was a kid, I was sent up to the gasworks at Queenscliff to get tar in a four gallon kerosene drum. We used to tar the yards with it, and used to tar the inside and outside of the boats before we put on the anti-fouling. It gave a good seal for the boats. We would throw beach sand on it after it was finished, and this was done every year. We used to get a sixpence for doing it. [CS]

Tar was also used to preserve craypots and buoy float lines: "We used tar to tar the ti-tree, and we tarred the pot lines in the early days too. We used sisal for the ropes" [HM].

IV) Military Sites as Resources for Boatbuilding Materials

Several Queenscliff fishermen indicated that various military sites provided materials for boatbuilding. After the South Channel Fort closed in the 1960s, fishermen would go over and take the jarrah supporting beams which were re-used as keels [CS; LID], a factor that probably led to the collapse of some of the underground sections of the fort (Kitson 1987:5.4). The former entrance tunnel into Fort Queenscliff at the base of Shortlands Bluff, which was once lined with thick jarrah beams, also appears to have been mined for this resource [SH]. [WN] maintained that the defence forces were also involved in the removal of beams to make furniture at both of these sites. Kerr (1985:54) has recorded similar behaviour at Port Melbourne, where fishermen cut sections off the pier to form the stem and sternposts for their fishing boat.

Artillery sites also provided unexpected boons for fishermen. It was common knowledge in the community that shells had been fired at Duck Island for artillery practice [CS; HM; LID], and these were salvaged for use in boatbuilding [LID]:

The fishermen used to go to Duck Island to get the rifling bands from the shells [copper rims around the iron shell] that they fired at there. They used them for the quarter bands on the backs of the couta boats, you know as a rubbing strake to protect the stern of the boat. They had a howitzer in Swan Bay that used to fire at the island. [HM]

9) The Archaeology of Fishing Landscapes

A) Piers and Associated Amenities

The fishing industry provided much more subtle evidence than many of the other industries in the Queenscliff area. Though partially demolished, substantial remains of the former Fishermen's Pier still exist under reclaimed land of the Queensland Maritime Museum and former Marine Science Laboratories sites, and were evident during redevelopment works in 2005 (see Chapter Eight). The course of the former plank road (now Wharf St) is still distinguishable in the raised embankment that fronts the adjacent reserve.

Several structures that formerly stood on the Fishermen's Pier are now located in the Queenscliff Maritime Museum and adjacent Parks Victoria grounds, including the Fishermen's Shed, The Fish Shed (Figures 6.19-6.21), and the Morgue. These structures are all of timber construction with corrugated iron roofs, and The Fishermen's Shed was decorated inside with paintings of passing vessels. Other work related areas of significance include the Fishermen's Co-operative Building and a branch line railway siding from the train station to the former fish shed site (near the current co-op, which is now only visible by its former path along a laneway between the fishermen's houses.



Figure 6. 19: Fishermen's Pier Fishermen's Shed, now located in the QMM.



Figure 6. 20: Interior of Fishermen's Shed.

Many small piers were located at Swan Bay (Figure 6.22), South Red Bluff (Jameison's Jetty), St Leonards (Figure 6.23) and at the Mud Islands, which were used for landing catches and nets (the latter of which was also used for guano mining). These piers were of vernacular construction, using lightweight sawn or unformed timber piles. Two small piers found north of the township St Leonards, and another at South Red Bluff (near Pt Edwards) used un-worked ti-tree branches as pier piles, and were associated either with the fishing or firewood trade, or both [GH].



Figure 6. 21: Fisherman's Pier Fish Shed, QMM.

The northern area of Queenscliff between Bridge St and Weeroona Parade was an important boatbuilding area, as was the seaward side of Beach St, where boats were launched directly into the water. The remains of a Cayzer Brothers former slipway and boatbuilding shed (which were built by Locke) are still visible at the end of Beach St, and are characterized by a dock formed in the sheet piling wall and scattered timber (Figure 6.24). An earlier slipway behind the railway station consists of substantial circular piles with vertical iron bolts, attached leeway timbers and an excavated area in the bank, which is probably the early slipway used by the fishermen and local Yacht Club (Figure 6.25). However, the construction of the railway in front of the facility, along with the installation of the low bridge to Swan Island either suggest that it was only used for slipping smaller vessels, predates those facilities, or that it was only ever accessed from the sea. Buried evidence in these areas, and along the sand spit to the north might include careening debris, rollers and other structural material and fittings, although none were identified during the study. Slipways increased in size over time as the size of fishing boats and other coastal vessels increased, as was evidenced by the latest dual slipway installed in the 1960s at Queenscliff Harbour (Figure 6.26).

Other facilities associated with the fishers presence included a barometer which once stood on the Fishermen's Pier, but which was moved to the top of the new Harbour Slipway when the pier was demolished. This area then became the focus for fishers' gatherings after the Fishermen's Shed was also removed (Figure 6.27). A weathervane was also mounted on the top of the Ports and Harbours Building, which probably originates from the West Channel Pile Light (Figure 6.28).



Figure 6. 22: Vernacular fishing boat pier, Queenscliff, Swan Bay.



Figure 6. 23: St Leonards fisherman's/ firewood trade pier piles. (Scale =20cm).



Figure 6. 24: Cayzers boat shed dock/ slipway.



Figure 6. 25: Recording the Swan Bay Slipway.



Figure 6. 26: Queenscliff slipway.



Figure 6. 27: Queenscliff slipway winch shed. Note former Fisherman's Pier barometer and Fishermen's meeting place seat on right.



Figure 6. 28: Weathervane atop the former Ports and Harbours building. This feature probably originates from the West Channel Pile Light.

B) Fishing Boat Anchorages

Fishing anchorages were usually located in sheltered shallow waters, usually with some degree of protection from prevailing gale force winds. Fishing anchorages were also evident in historic times by the presence of breakwater planks and cranes on the piers, the former to provide shelter for the vessels inside. The most obvious evidence of fishers' anchorages at Queenscliff was the current boat harbour and remains of The Cut. At the western extremity of the Creek (Figure 6.29) and current boat harbour, two extant (but degraded parallel timber training walls mark the original length of The Cut (Figure 6.30). A substantial breakwater/ causeway installed to silt up the former creek entrance were also evident on the northern side of the cut in the Swan Ponds, and consisted of a timber piled and planked wall reinforced with rough-cut bluestone boulders (Figure 6.31). Similar training walls/ breakwater entrances across a bar have also been observed at Gippsland Lakes (on a much grander scale). Anchorages were ideally located in a bay predominately sheltered from south westerly winds, and this protection was usually enhanced by the use of singular or paired breakwaters for housing fishing fleets have been observed by the author throughout Port Phillip (Mornington, Sorrento, Queenscliff, Geelong, Melbourne, Portarlington, St Leonards, Swan Island, Swan Bay), and Westernport Bays (e.g. San Remo, Hastings, Phillip Island), and along the entire Victorian coastline (e.g. Warrnambool, Port Fairy, Lorne, Apollo Bay, Port Albert, Port Welshpool, Toora). Strategically placed hulks and or actual shipwrecks were also used to provide shelter (e.g. Indented Head, Sorrento), as were timber sand groynes which encouraged sand accretion on the seaward side, whilst forming a deeper sheltered area on the other side (e.g. St Leonards – Portarlington, Avalon Beach Geelong – Duncan 2004a, Werribee). Where no protection was available on exposed coasts, fishing fleets were often located in tidal inlets, estuaries or lakes, and might be encountered miles inland in very shallow/ narrow waterways (Duncan 2003b). This was

particularly the case where there were sandy beaches in the Gippsland region (e.g. Mallacoota, Port Franklin, Foster) and cliffy coasts of Western Victoria (Port Fairy, Warrnambool).

Furthermore, the differences in the size and type of moorings further indicated the type of weather each mooring was used for (i.e. everyday/storm moorings). As it was known from oral histories that couta fishermen used single anchor moorings between the piers at Queenscliff [HM], the use of permanent moorings at different sites around Queenscliff and Swan Island might further be used to differentiate between types of fishermen and their economic catches (e.g. net vs. line fishermen). Several vernacular fishing boat moorings (e.g. engines, heavy scrap iron and kerosene tins filled with concrete – Figure 6.32) were discovered at Swan Ponds, Stingaree Bight [PF] and St Leonards [RA], respectively, and similar opportunistic use of local materials (i.e. curbing stones) has been documented at Williamstown near Melbourne (Duncan 2003a: 287). Although old train wheels were the favoured mooring type, none were identified in this area. Fishing boats were also evident in the archaeological record through discarded/lost ballast (e.g. lead ingots 30 x 10 x 8 cm) and/or pig iron/fireplates at the Portsea Pier (e.g. [PF]; VHR S737 database record – *Winfred* shipwreck).

An unexpected type of fishers' boat storage was observed at Portsea close to Pt Franklin in Collins Bay, where a former fisher's camp was formerly situated on an exposed beach. A number of caves had been carved out of the cliff face and a block and tackle were installed in the rock roof to raise the boat out of the water/tidal range in bad weather ([RG]- Figure 6.33), but the interior of these features were not inspected.

Fishing anchorages were also identified by timber or iron tie posts (2-3ft high) that were used to secure small boats fore and aft (Figure 6.34). These were spaced 10-15m apart, usually in a perpendicular line to the shore, usually sheltered from prevailing winds. These features were often the only indicator visible of fishing anchorages in some areas, and these types of characterisations have been observed by the author in other regions (e.g. Melbourne, Gippsland, Geelong, – Duncan 2003a, 2003b, 2004a, respectively).

Fishing anchorages have been tentatively identified by distinct artefacts used by fishermen. These include recycled marble aerated water bottles with intact oil inside (which were used as engine oil storage for couta boats). Other possible archaeological signatures of fishermen's moorings include rabbit traps (for eradicating rats that ate nets) and half sheep shears which were used for filleting knives. [SA] observed that there were no alcohol bottles near the *Wauchope* (shipwreck), which was



Figure 6. 29: Queenscliff Harbour and The Creek from the east.



Figure 6. 30: Extant northern timber training wall of the original Cut entrance, western end of The Creek.



Figure 6. 31: Swan Ponds breakwater/ causeway.



Figure 6. 32: Vernacular fishing moorings discovered offshore at St Leonards (Photo: Heritage Victoria).



Figure 6. 33: Fishers boat storage cave, near Pt Franklin.



Figure 6. 34: Pt Norgate tie posts, Swan Island.

a former fishermen's anchorage, an observation which could reveal more about fishers work habits, and the separation of work from recreational areas, but was not tested further here.

Although several fishing boats were known to have wrecked in the area, at the time of this study no fishing boat wreck sites had been located outside of Swan Ponds (where several had sunk at their moorings). This observation possibly indicated that those boats that foundered in open waters were either recovered soon after the incident, or the hulls quickly deteriorated after the wrecking event.

C) Fish Species and Differentiation of Economic Catches

Physical evidence of fishing activities underwater often indicated the historical fishing locations, and included preserved craypots; scallop dredges; lead sinkers, hooks and grapnels and nets, that were usually found in conjunction with concentrations of underwater bottle scatters (e.g. the West Anchorage [PF]). Modern recreational fishing locations were often evident by scatters of aluminium beer cans [PF]. Examination of the types of sinkers, in conjunction with ethnographic accounts and oral histories, may reveal the types of economic fish species caught in various areas, based on observed traditional fishing practices that varied for different types of fish (i.e. bottom feeding fish require heavy sinker in current etc). Most of the sinkers appear to be of vernacular construction (probably using a homemade mould) and some were made from lead filled copper pipe or scale weights, providing further insights into the recycling practices of the fishing industry (Figures 6.35 – 6.38). These artefacts were generally located along on rock bottoms at the edge of the rocky reefs (over an area of 200 and 700ft long) [PF], where lines were more prone to catch, but these were also the areas where some fish species were more prevalent (e.g. snapper). Furthermore, snapper fishing often used very heavy weights to counteract the effects of currents (sometimes many kilograms in weight), and often resembled lead sounding weights used for determining water depth [PF], whilst whiting sinkers were more lightweight [LID]. Examples of specific recreational fishing rigs used in Port Phillip Bay have been documented Wedlick (1965: 27, 38, 39) - see Figure 6.39). Unfortunately the nebulous and vernacular scope of fishing sinkers, along with their predominant lack of any distinctive stamping that might be expected in commercially manufactured items often precludes any exact dating of these types of rigs. However, one sinker (in Figure 6.35) was scratched with “24” which might be a distinctive mark to signify ownership.



Figure 6. 35: Snapper fishing sinkers used in Port Phillip Bay. Sinker on right was used as a beach casting sinker (probably for salmon fishing). Note scale = 15cm (P. Ferrier Collection).



Figure 6. 36: Possible scale weights (left) used as fishing sinkers (P. Ferrier Collection).



Figure 6. 37: Fishing sinkers made of recycled cartridges and copper pipe - found at West Channel Pile Light (P. Ferrier Collection).



Figure 6. 38: Snapper fishing sinkers (P. Ferrier Collection).

D) Housing

The earliest fishermen's huts were nearly always located on the Fishermen's Flat, as it was originally reserved Crown land for this purpose. Many fishing residences are still extant on The Flat, and were characterised by their small size, timber construction and few rooms (Figure 6.40), and often smaller rear cottages for leasing to tourists during the summer season (Figure 6.41). As fishermen's housing areas were marginalised to low-lying marshy areas, they were also indicated by the presence of anti-erosion devices such as sandstone walls, timber groynes (Queenscliff – Figure 6.42, St Leonards, and South Red Bluff) and even a former shipping hulk (*HMVS Lonsdale*).

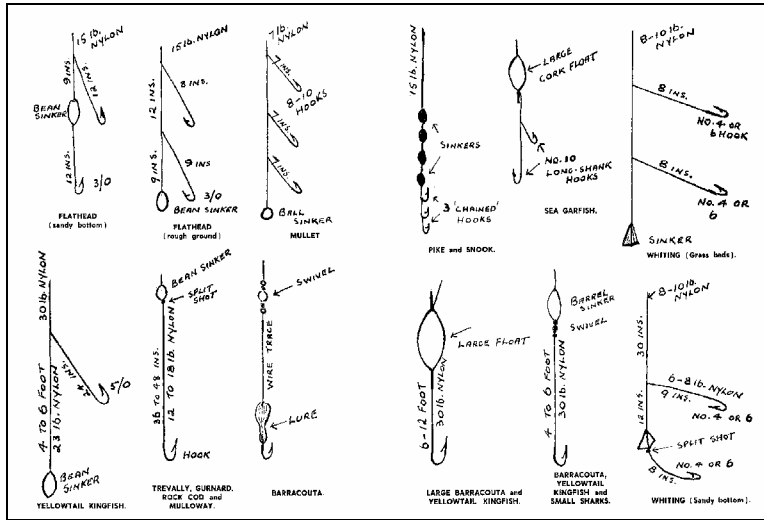


Figure 6. 39: Examples of fishing rigs used in Port Phillip Bay (in Wedlick 1965: 38-9).



Figure 6. 40: Fisher's house (left) and rear cottage, Bridge St, Queenscliff.



Figure 6. 41: Fisherman's cottage, Queenscliff Maritime Museum.



Figure 6. 42: Excavated timber groyne uncovered behind Beach St Fishermen's Houses in 2006 (Scale = 2m).

Fishing houses usually did not have their own water supply, but many were known to have open ended timber barrels buried in the yards which were used for soaks, where ground water seeped into the barrel overnight, a practice that was also common in the early pilots' service (Dod 1931:17). An iron tank around a spring was located at 16 Wharf St in recent years [GW]. Some housing blocks also had small net storage sheds, and concrete tanks with corrugated iron forming formwork, or cut down corrugated iron tanks which were used for the annual net tanning (Figure 7.43). Similar examples have been observed by the author at Hastings, Westernport Bay.

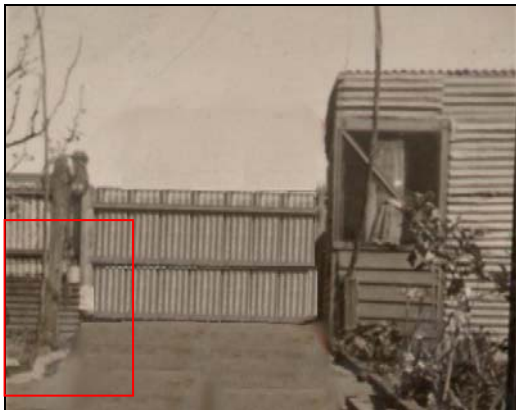


Figure 6. 43: Shapter Family net tanning tank (left) and net storage shed (After Photo: PH160 QHM Collection).



Figure 6. 44: Edwards Point fishermen's road/hard (Scale = 1.5m).

Due to the popularity of looting amongst fishermen, it has also been suggested that finds of contraband wreck or smuggled material buried in backyards or secreted within the house structure [GW; HM; LID; PF] might also characterise historic fishermen's residences. This aspect is discussed further in the following chapter.

Remains of isolated timber and corrugated iron shacks and house foundations were once evident on Mud and Swan Islands, along with alcohol bottles [GrW; IS; LJ]. Drop-pit toilets were also used at fisher's cottages, and Thompson (n.d.:2) reported that 13 years worth of toilet pits were located under the 7th hole of the Swan Island Golf Course. Only flattened areas of former Mud Island house sites were located during the survey, along with some exotic plant species (but the latter could have been transported there by birds). House sites at Duck Island were indicated by brick, bluestone, timber, corrugated iron and concrete remains; it is probable that further archaeological remains are buried in these areas. Huers Huts (bird/fish watching huts) were once located in Weeroona Bay, but

were not investigated as part of this survey, and no similar features were identified on the Bellarine Peninsula.

E) Other Signatures

Access roads or hards for net fishermen at Edwards Pt Peninsula (Figure 6.44) were constructed over swamps using brick rubble, and some of these tracks formed the foundations for many of the current roads into the area [GH; LJ; PM; SS]. The brick road is still visible along the eastern finger arm, and may have altered the environmental conditions of the area to produce a third peninsula finger. Similar features have been observed at Port Albert on the east coast of Victoria and in Westernport Bay (Duncan 2003b, 2004b). Other signatures encountered of fishing include environmental indicators, such as the denudation of ti-tree stocks in the Rye area and wattle trees from the Swan Bay and Swan Island regions, which were respectively used for manufacturing craypots, and for tanning nets and fishing lines.

Perhaps the greatest physical indicator of fishing landscapes lies in the environmental change they wrought. Aside from the obvious effects of denudation of natural resources (i.e. fish stocks and local vegetation) and the effects of constant anchoring on the seabed, the installation of pier and fishing boat harbours to extensive changes in local geomorphology. The installation of the first pier began a cycle of sand accretion in the area, and the creation of an enclosed boat harbour through the installation of breakwater planks on the two major piers further between (c.1914-1935) complicated the problem (see Appendix G-3 for further details). The final implementation of The Cut and the associated breakwater/causeway to close the old entrance caused massive siltation and erosion problems along the Queenscliff and Swan Bay foreshores respectively, and led to dramatic reshaping of the Queenscliff coastline and the installation of erosion control devices to protect the fishers houses from washing away ([HM; JP; LID]; Larkin 1928 [plan]; Raison, 2002: 24). The changes also demonstrated at Edwards Point show the extent to which fishing anchorages and activities effectively changed coastal topography, and therefore it might be said that the biggest archaeological indicator of the fishing industry is in fact environmental change. This aspect is discussed in further detail in Chapter Eight. A summary table of archaeological signatures associated with fishing landscapes is presented in Appendix E-10, and an overview of fishing landscape sites is presented in Figures 6.45-6.49.

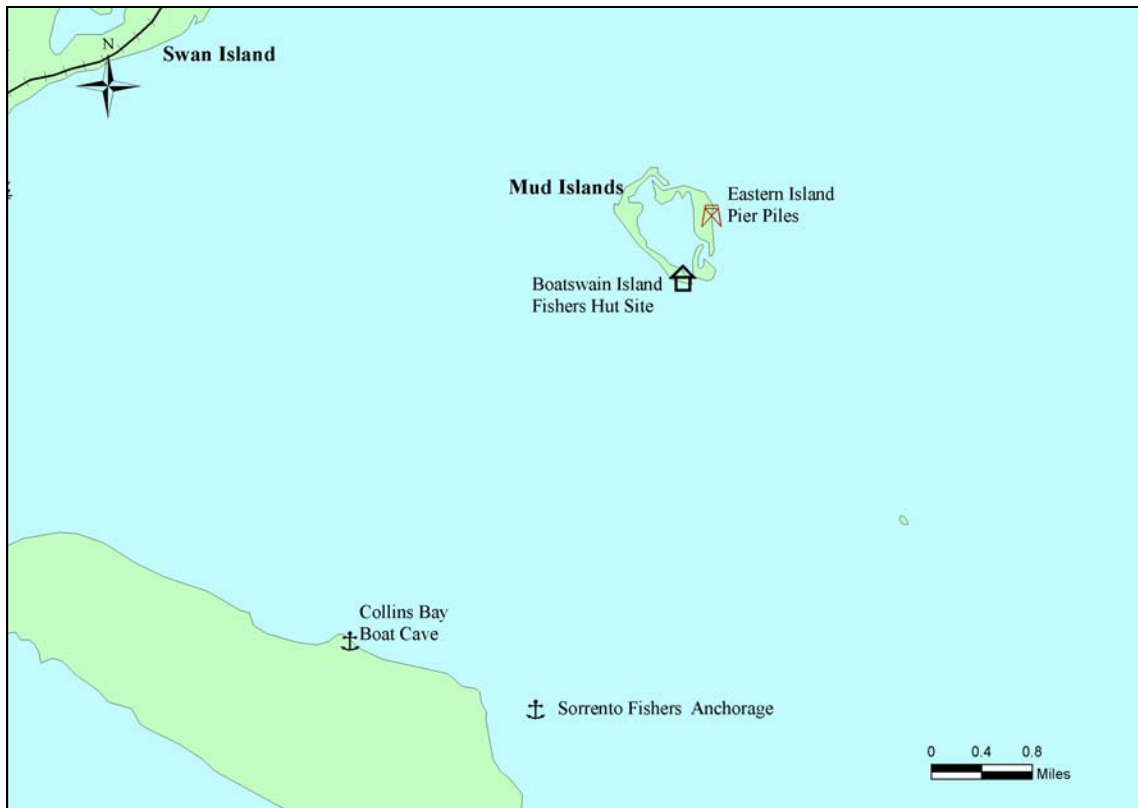


Figure 6. 45: Fishers landscapes of the South Channel.



Figure 6. 46: Fishers landscape sites of the Swan Bay.

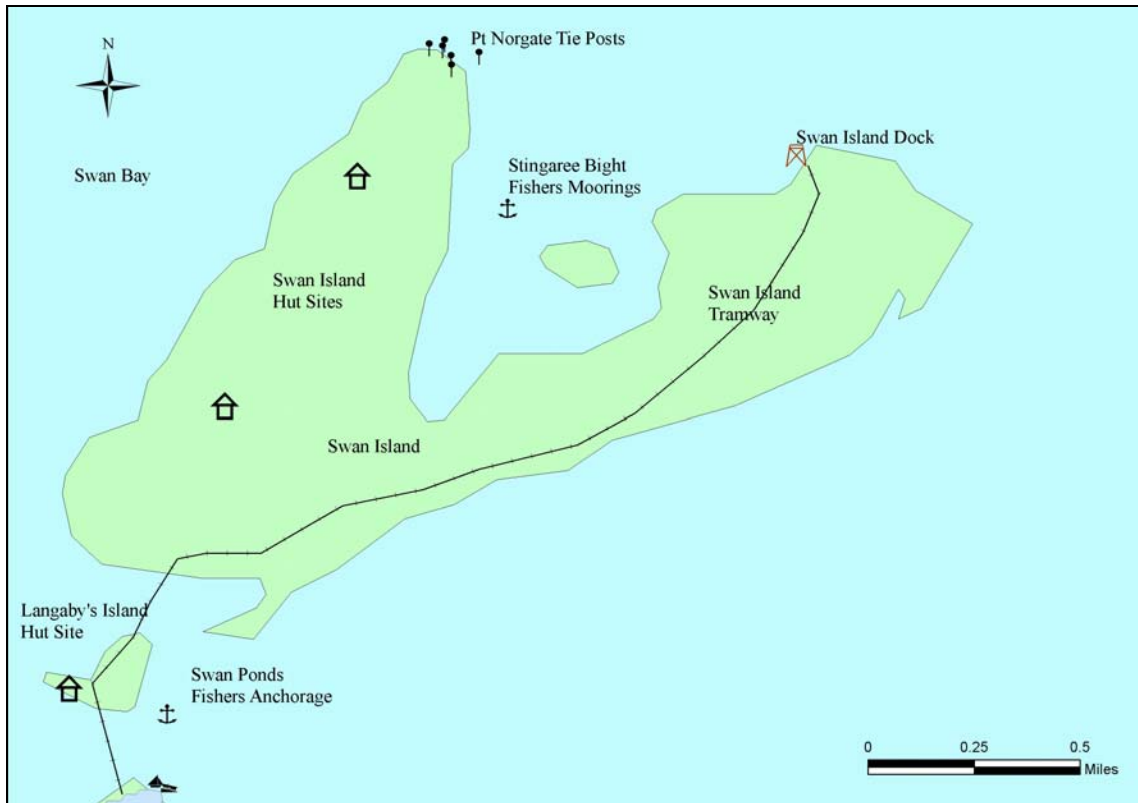


Figure 6. 47: Fishers landscape sites of Swan Island.

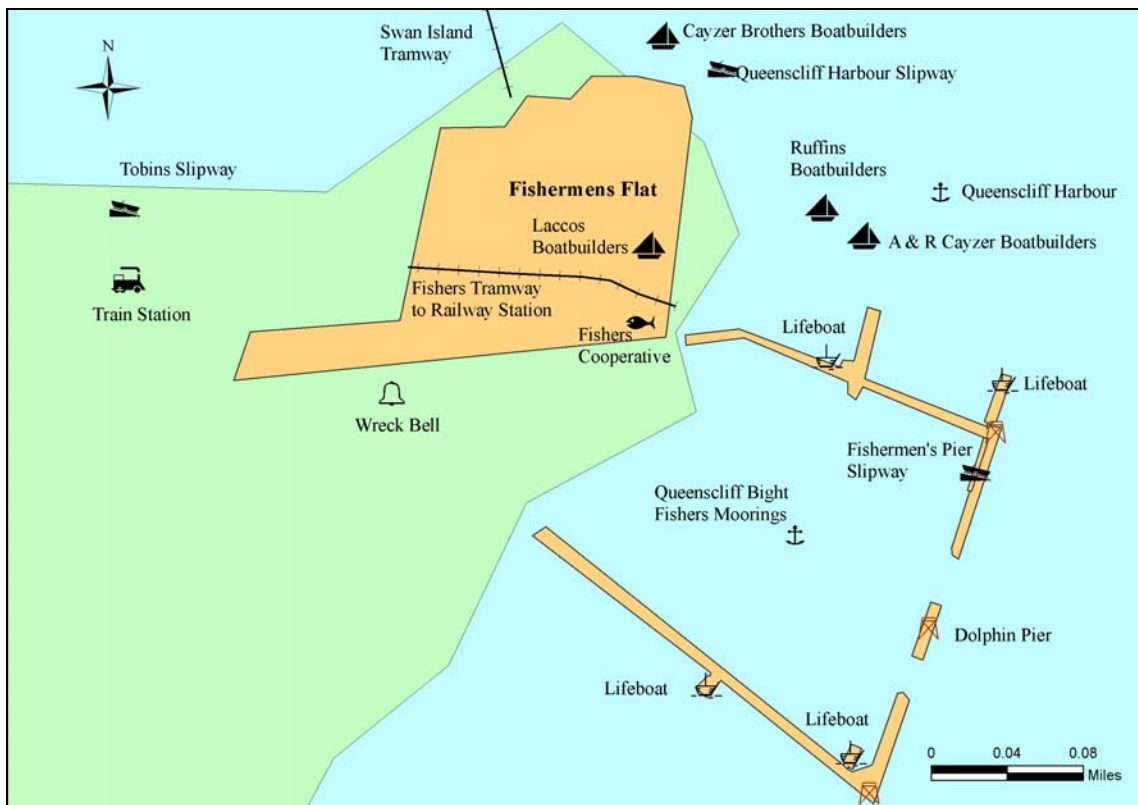


Figure 6. 48: Fishers landscape sites of Queenscliff (east side).

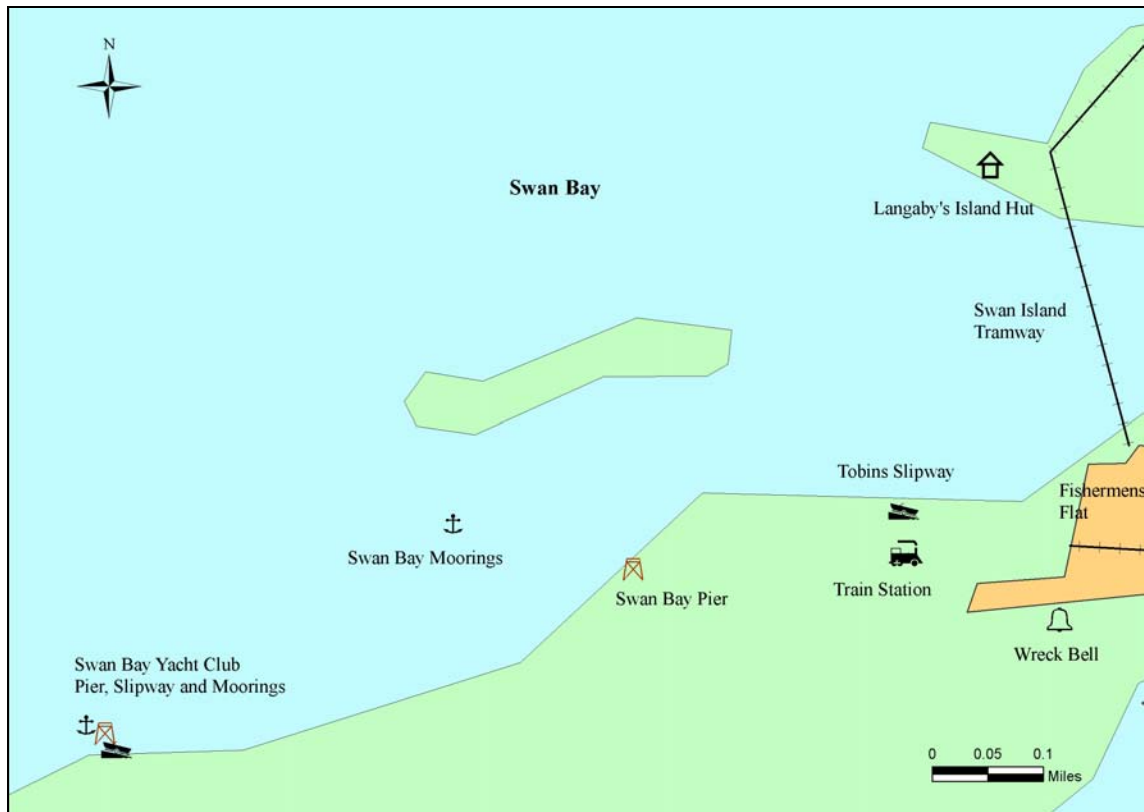


Figure 6. 49: Fishers landscapes of Queenscliff (west side).

10) Cognitive Landscapes

A) Gendered Fishing Community Landscapes

I) Fisher Men's Landscapes

Examination of the fishing community also provided an opportunity to discriminate between gender based activities of that social group. Aside from the obvious examples of workplace practices already outlined above, there were many apparent disparities between the areas accessed by men and women who regularly mixed in and experienced very different worlds to each other, and often held different views of other community groups within the township. These exposures to disparate experiences of Queenscliff society may have led to the generation of very diverse landscapes based on gender, which will be explored in further detail below.

(a) Entertainment for Young Men

There were many popular recreation venues throughout the region for fishermen which represented male dominated spaces. Several informants indicated that the lower end of the town, between

Hesse and Gellibrand Streets was often frequented by the younger men of the fishing community who did not venture outside the world of the Fishermen's Flat or their own pubs:

...if they [the fishermen] didn't go to the footy ground they wouldn't know what the other side of town looked like...they used to hang out at the Esplanade Hotel, and never went any further than the Vic [Victoria Hotel at the eastern end of Hesse St]. They would sit on the windows [sills] and talk all day if the weather was bad. One bloke was called the rounder, because he spent the whole day doing the rounds of three pubs at the bottom end of town...They didn't go to the top of the town too much, except for the football. [name withheld] came back from uptown the other day, and asked where the Asters Boarding House had gone, and that had been pulled down 20 years ago, which shows how often he goes up there. [GW]

The proximity of the Esplanade Hotel to the fishermen's moorings meant that fishermen (of all ages) could watch their boats whilst enjoying a beer outside the pub, and it became the favourite watering hole for fishermen [HM]. Similar practices were noted amongst fishermen at Lorne in Western Victoria, many of whom were probably also Queenscliff fishermen (Hunt 1999:132). Several visitors to Queenscliff over the years recorded a larrikin element at the bottom end of town were a problem (QS, 21/6/1884, 27/3/1886, 10/8/1907), and the triangle shaped park opposite the Esplanade Hotel developed a reputation as a place where drunk fishermen went to fight soldiers, urinate and sleep after overindulging at the pub [GW].

The Mud Islands were another venue that was used almost exclusively by male fisherfolk and local football clubs. The earliest use of the Mud Islands was related in oral accounts where fishermen would tow barrels of alcohol they had found from shipwrecks to the island, where they would remain until they had consumed its contents [LF]. Many respondents recalled that "Barrel Days" that had taken place at the Mud Islands, where (often underage) teenagers took a keg of beer over to the north-west extremity of the islands, and would stay there until the barrel was empty [GrW], which has obvious parallels to the looting behaviour outlined above, and suggests that these customs may have been traditional practices. [GR] remembered:

I've been to Mud Islands for BBQs with the footy club. We had all sorts of fun there. We used to have a thing called the Mud Island Gift. It was a race, 100 yards up to your knees in mud. It was won once by a bloke from Fiji. You would also see how many toadies you could fit into a beer glass. It was fun having to catch them in the mud. You usually stayed for the day...You would anchor the big boat offshore and wade or paddle in. We took barrels of beer, sometimes 7 nine gallon barrels. Up to 60 people used to go. We went to the NW island and came in the NW side in the shallows.

The visits continued at least up until the 1960s, when a fishing accident that claimed the life of two young boys led to the cessation of this practice [GR].

Football was a popular sport with fishermen, and regular Australian Rules football matches were held in the park (now the Queenscliff Fort parade ground), and later at the football oval. The local league included not only teams fielded by the local fishermen, military, and Portarlington and Drysdale districts, but also other sides from the across the bay on the Mornington Peninsula, and in one circumstance, Queenscliff won the league after an entire opposing football team was lost when their boat sank during a squall coming back from a match (Moorhead, 1980:133; [HM]). Derby matches with Sorrento were known as the “Battle of the Rip”, and spectators often sailed across and around The Bay to watch ([GW; HM]. The matches presented opportunities to let off steam, impress the local women and to even old scores, and were often rough affairs (this is discussed further in Chapter Eight).

Sailing regattas were another popular sport for the fishing community, who quickly dominated the sport from the 1860s onwards (Fanning 1893; QS 28/12/1912). Local fishermen were often such good sailors that they were banned from sailing in competitions at Port Melbourne on the grounds that they were professional sailors (Raison, 1987:29). Annual regattas are still held in the community, and are closely tied to the annual blessing of the fleet (QH, Feb 2004:1, Mar 2004:1). Ferrier (1989:20) recalled that youths would often take their fathers boats across to other coastal towns (e.g. Portsea and Sorrento) for nights out with their friends and girlfriends, but were often punished with a days fishing when they arrived home early in the morning.

(b) Fishermen’s Sacred/ Traditional/ Ritual, Spiritual Fishing Landscapes

Many informants revealed the existences of a number of localities which were considered of special importance within the fishing community, especially to the men.

(i) The Rip

It is without doubt that that The Rip is one of the most dangerous stretches of water in the world, accounting for many lives (and near mishaps) amongst the Queenscliff community, and the negotiation of which required specialist knowledge of its intricacies and irregularities. The Rip was often spoken of in reverential terms by many mariners, as recounted by Dod (1931:39): “many mariners venturing through The Rip breathe a long sigh of relief when they are safely through its terrors”. Many feared the crossing, but were forced to accept it as an occupational hazard [JM]. One informant summed up the fishing community’s perception of The Rip:

Was The Rip Dangerous? Christ yeah! Especially in a south west wind and a big break, with the tide and a break coming behind you. A few boats got sunk there. I wasn't too happy sometimes coming through I tell yeh! [CS]

Fishermen often relied on their own intuitive perceptions of The Rip to guide them through. One fisherman described The Rip with religious overtones, where he attributed his salvation from the monstrous conditions he experience to a Higher Authority, and others were known to plead the almighty for their salvation [LF]. It was clear that the area was held in exalted and solemn regard by all mariners who traversed it. Those who faced its dangers were highly respected for their abilities amongst the general community. The fishermen in particular were respected within the community for their specialist knowledge of its intricacies and variations. A former boatbuilder for the Pilots Service stated:

Fishermen had a better knowledge of the Rip than pilots. Pilots stuck to one entrance, fishermen worked the Rip, knew the currents, swell, seas. Fishermen knew the Rip, knew every swell that came in. Pilots knew The Rip to suit the job. [JB]

The Rip presented a greater danger to fishermen due to the restricted size of their boats, which were hence more exposed to the dangerous currents and eddies than larger vessels. Many accounts attest to the hazards of the fishing industry (QS 7/4/1894), and in one family alone, three sons were lost in separate incidents (QS 22/10/1892). Fishermen therefore used alternate routes to mainstream traffic whenever the weather was boisterous. Smaller channels inaccessible to larger vessels were used inshore of Lonsdale and Corsair Rocks in certain weather conditions to avoid the full effect of the tide or seas (PHB 1959:185). Fishermen used the Boat Channel (inshore of Lonsdale Reef) when the wind was blowing from the north/northwest and strong spring ebb tides [HM]. They would also use the channel between the Campbell shipwreck and Corsair Rock, to avoid the full effects of the tidal eddies ([PF]; PHB 1959:185; 191). These routes were initially guided by vernacular lead marks ashore, which were later replaced with official lead beacons (see Figure 4.4).

(ii) Fishermen's Shed

The Fishermen's Pier had two sheds which were used by fishermen to wait for daybreak to assess if the fishing fleet could put to sea. The Fishermen's Shed was reserved for senior fishermen, with the other hut for younger lads not permitted amongst their elders (Ferrier 1989:20). This structure stood midway along the Fishermen's Pier, and was the central focus of the fishermen's life before embarking for work:

Fishermen used the shed to talk in the morning before they went out fishing of a morning. They played cards in there when the weather was bad and sat and talked. When they

were coutering, they [the fishermen] went out at daybreak, and they would go into the shed and talk...and one by one they would gradually slip away. The young ones had to stand outside in the cold. The kids were not allowed into the shed when the fishermen were there...only when they weren't there. The shed was never locked and anyone could come in, but when the fishermen were there, the kids weren't allowed in. You weren't allowed in the shed until you were a man. When you got to a certain size you were allowed to go in to talk to them, and they were good talkers too. Some young kids once were playing around and nailed a dead squid to the underside of the [cards] table. Every time someone thumped the table, maggots would fall off, and eventually someone upended the table in a rage, and there was cursing in eight different languages. [GW]

Boys were only allowed into the shed after they had become fishermen themselves (i.e. not just assistants to their father). Some exceptions were made to allow boys to run errands [LF], and to read for their illiterate fathers ([PF]; Raison 2002:22), but generally this was a place reserved for elder fishermen only, and it was a habit of the elder fishermen to tease the young lads (Ferrier, 1989:20). Similar behaviour has been observed by Evans (as cited in Kerr 2003b), where boys were excluded to the periphery of congregations on the wharf, and fishers also gathered in the Round Topped Shed. Fights were also sometimes settled in the sheds, along with occasional championship boxing bouts [LF]. When the Fishermen's Shed was removed from the Fishermen's Pier after it was demolished, fishers congregated at the winch shed at the top of the slipway in the new boat harbour (Kerr, 1985; [DG]).

(c) Fishing Initiation and Rites of Passage

The restriction of children into the Fishermen's Shed until they were a given age suggests that a process of education and initiation as a fisherman was undertaken there. Symbolically, admission to the shed represented an acceptance by one's mentors into manhood and as an equal. Final acceptance as an initiated fisherman was earned when the individual could negotiate The Rip on his own. In some cases, boys as young as 14 owned their own boat, but were not accepted as fishermen until they were 16. [HM] recalled the hierarchy of the shed:

Boys weren't allowed in until they were 14-16. They could go in when they were men. They usually got their fishing licence around that time, and then they could go in. They would go out with their fathers fishing before then, and they were only allowed a partial quota. When they turned 16 they could go in the shed, and that was around the same time as when they got their licence. (Q. Was it a kind of initiation, like in other places where boys had to perform a certain task to be accepted as men?)...Oh yes. That's what it was like. You had to be a man to be allowed into the shed, and you had to be accepted as a fisherman before you could go in...Some boys shied away from it [The Rip] when they first tried, and went back in. You had to be able to show that you were a man though to get in the shed. You had to prove that you were a man to get in, through fishing. You had to be able to show you could handle yourself. I didn't start fishing until I was 14, and I didn't get in until I was 16. They were different times back then.

Sognnes (1994, as cited in Westerdahl 2000:12) recognised that the transition from sea to land (and vice versa) could be seen as a rite of passage, of the type called territorial passages, where the time spent at sea represented the liminal period away from normality, after which the participant would return anew.

It appears that the shed was a revered or ritualistic space, where free admission signified not only membership of a special order (i.e. of fishermen), but also of those who had been initiated into manhood or accepted as men, possibly through a rite of passage through The Rip. The exclusion of outsiders during the hours of use by fishermen signifies that the shed itself was not significant, but the actual space during the time that it was used by fishermen symbolically was. This practice is analogous with halls that are used for Masonic Temples (and other Lodges), which possess significance as a semi sacred landscapes when in use by the Lodges, but are often used by other parties outside those times for other purposes.

This practice of exclusivity has often been adopted by numerous other trade guilds (e.g. Freemasons, Horsemen's Society (Evans 1966:235)) to reinforce their own cultural identity through secretiveness and mysticism. Minegal et al. (2003) and Wright (1992) have observed the importance of hereditary knowledge in fishing communities lay in the ability of those members to recount and identify themselves as part of those groups, whether they were related to those in the stories or not. In Queenscliff, secrets of the trade (e.g. fishing locations and technological secrets) were closely guarded, and exclusion of the uninitiated and other outsiders from the fishermen's secret inner world thus maintained the social differentiation both within and without the fishing community. Those who were outside the fishing community were excluded from the hereditary knowledge of the secrets of local fishing, and younger members of the community were placed within the social stratum of the fishing society by restricted access to that information. This restriction of understanding has similarities to ritual initiation cults, where manipulation of knowledge and successive levels of secrecy is used by elders to gain social and political domination over younger men (Barth 1975, as cited in Smith 1986:250). The rationing of knowledge to those who were part of the hereditary fishing community and the exclusion of those who were not, was a significant component of maintaining the cultural identity of the Queenscliff fishing community. Furthermore, the existence of a specialist and secretive body of maritime knowledge has parallels to the Polynesian societies, where traditional understandings of the localized maritime environment was passed from generation to generation as a closely guarded specialized trade secrets (e.g. Gladwin 1970; Lewis 1994; Hviding 1996;), and often helped establish a separate cultural identity

from those who were terrestrially based (Thomas 1997:45-8). This issue is discussed further with reference to external social differentiation in Chapter Eight.

The lifeboat service may have represented a further step in the initiation process, as originally seasoned mariners only were accepted for the service. Membership of the lifeboat was made up predominantly of fishermen, many of whom were teenagers in the late twentieth century [CA; HM; PF]. Membership of this institution was predominantly a necessity in most cases to make ends meet, but was also bestowed a degree of admiration from the township and tourists, as the work was often undertaken in very dangerous conditions. It is therefore possible that a place in the lifeboat was yet another way that fishermen demonstrated the depths of their courage and status of manhood. Other aspects of fishermen's service in this activity are discussed in Chapter Seven.

II) Fisher Women's Landscapes

In stark contrast to their male counterparts, fishing women often had a much broader exposure to other sectors of the township. This intermingling with other social groups within the town, even if only in a professional capacity, led to different landscapes/experiences to those of their male counterparts. Although the worlds of the fisher women were only explored in much shallower depth than the fishermen (due to times constraints predominantly), they present interesting alternative and often unexplored insights into the other half of the fisher community.

Married women often had very large families of up to 17 children [JM; PF]. However, far from being submissive domestic housewives, the women of the Queenscliff and Pt Lonsdale communities often dominated the households. [JM] claimed that especially within the fishing community, the women ruled the roost:

They were tough characters, with strong and often loud women who controlled the families and money. It was a matriarchal society.

Fishermen's wives often forced their husbands to get jobs during the winter months, and according to one informant [PF]: "The weather and the wife were the boss". [WN] reaffirmed this observation:

Yes it was peculiarly matriarchal around here. It was the same in all the families I knew of. It was a product of the war. The women took up the reins while the men were away, and they didn't want to hand them back when the war was finished. All the families I knew were like that. It seemed to be while the war was on, that the women took up the reins. Women did things then that normally would be frowned upon. Auntie Nola played the drums in a band, and mum played the guitar in a local band, which were usually roles

played by men. I know when Bob was away, Nan speculated on land, and made a lot of money doing it too. When Bob came back he spent all the money, and was in the doghouse for a long time after that. They used to call a lot of the husbands the lovable dopes. They were nice people, but the men were no good with money. That sort of thing. Women still are the same strong figures in the community. If you look at the historic records, they mention a lot of strong mother figures, which was a common facet of Pt Lonsdale and Queenscliff life.

Furthermore, one informant maintained that boats were always named after women:

All their boats were named after women. My boats were named after women in my family, and in the end I ran out of women's names and named my last boat after the dog.
[HM]

This was a common observation in Victorian fishing communities (Dwyer et al, 2003:11), and might suggest women also have exercised influence over sea as well as home life.

(a) Work and Employment

Although women do not appear to have been involved in waterborne fishing, several informants (both male and female) indicated that women played a role in the seine fishery, and were mainly involved in helping haul in the nets, predominantly in the early days [JM; LF; PF].

Single women from fishing families were not afforded the luxury of staying at home, but were forced to train for a profession either in the technical trades (e.g. seamstress, music teacher etc) or to bring some form of income into their often large families [WN]. Fishing women were involved in a variety of professions over the years, including washing clothes at the fort around the turn of the century [PF], or making souvenirs from shells and other flotsam and jetsam to sell to tourists Dod (1931:25-6).

Fishing women often completed higher standards of education than their male counterparts, especially in the technical trades such as tailoring and photography [DS; WN]:

You made all your own clothes back then, and it was reported in the local paper. Nan made ball gowns, white silk shirts for boys, and foundation garments (undergarments). She was trained at the Gordon Tech. You weren't allowed to stay at home. Women had to be trained to do something - that was mainly the fisher women folk. She did right up to merit at High School. Mum took her own photos and developed them. Mum had a dressmaking and Millinery shop... in 1940. [WN]

Guest houses were also an important part of many fishing communities (e.g. Lorne - see Hunt 1999:25), as they provided supplementary work especially for young women. Several descendents

of fishers recounted how their family's womenfolk were extensively involved in the guest house trade, where they worked very long hours, but also occasionally had time to swim at the more exclusive Pt Lonsdale Beaches [DS].

The women of many fishing families often worked in, or ran guesthouses, and made all the decisions even when the fishermen owned the facility [WN]:

All his sons were fishermen, and all his daughters were in the boarding house business... Jonah Aitken owned the guesthouse behind the nursing home...Her husband sat down and cried when his wife told him that she was starting a guest house, as it meant more work for him. The husband had to compact the latrines. [JM]

Beachcombing appears to have been a significant component of fishing women's landscapes, but was also undertaken by other family or community members. Women often patrolled the beach in search of fuel for home fires [DS; PF; WN]. Driftwood and shipwreck timbers were also collected by women as firewood from the same area, and also at Swan Island, despite being officially out of bounds for the local community (Ferrier 1991:2). Beach combing is explored further in Chapter Seven in relation to shipwreck flotsam.

(b) Army Personnel

The fortress at Queenscliff played an important role in many women's landscapes, particularly for the younger daughters of the fishermen. Many informants revealed that the army personnel were very popular with the townships younger female population:

The young ladies loved the men at the fortress. The Gunners at the fort were the backbone of the Australian Infantry Forces, and many of them went to Tobruk and El Alemein. Lots of young men returned from the war as commissioned officers. The war had a big effect on the town, and the army was well educated. The fort had a big effect on the town, and the girls too. And the fishermen. The army (personnel) took all the girls. [JM]

The forts at Shortlands Bluff and Crows Nest were therefore important components of the recreational landscapes of many single Queenscliff women. Additionally, as the army personnel had more money than the fishermen [GW], their spouses and girlfriends were also likely to have had exposure to the more affluent areas of the town that were inaccessible to the poorer male fishing population, which further contributed to the ill feeling between these two social groups. This aspect is explored further in Chapter Eight.

It appears that fisher men and women occupied very different landscapes within the Queenscliff community. It is clear from the above analysis that there were many gendered aspects to landscapes within Queenscliff, particularly a division where the sea was predominantly accessible to males, from which women rarely ventured. However, it can also be seen that women also had areas where fishermen were excluded, and in particular this was into military areas (and their associated recreational regions) that were accessible to women either through work or fraternisation with soldiers, and into tourism areas through their work commitments.

III) Fisher Children's Landscapes

Children's landscapes presented another opportunity to investigate gendered landscape perspectives. Of particular note was the involvement of boys in fishing activities from an early age to assist their fathers. Given that many followed their fathers into the business, these formative years can be seen as a prelude to a fishing apprenticeship. Fishers' children were educated in the use of boats from a very young age to prepare them for a maritime career:

I knew a lot about boats and boat handling from Dad and Granddad. I was always in boats with Grandad. To get to the boat, we would go out in the dinghy, and [we would] muck around on the pier and other boats. [JB]

Often children missed school to go fishing with their fathers:

Oh yeh, they went out fairly early, most kids were fishing by 14. [Name withheld] didn't get to school too much. He got as far as the 6th grade. I can remember the schoolmaster shouting and waving at him as he went out in the boat when he was supposed to be at school...as soon as you could walk you went fishing with your father... a lot of kids often didn't go to school in the early days because they were out fishing [GW]

Children were often recruited to assist their fathers with the maintenance of fishing equipment, including procuring bark (for) and tanning nets, and tarring fishing boats [CS]. However, the initial excitement of fishing often became a mundane chore for many children, some of whom would go to extreme lengths to avoid it.

The fishermen would go down to the shed of a morning before going out, and to see how the water was. If there had been a rough sea, the pier would be covered in kelp, and that usually meant it was too rough to fish. The boys would often put kelp on the pier to save having to go out fishing. [PF]

Many other observations of fisher children's landscapes are included in Appendix E-11. Gender was clearly a significant factor in the determination and differentiation of landscapes of the Queenscliff fisher community.

11) Discussion

This chapter has shown the scope of activities undertaken by just one section of the Queenscliff community, and the rich diversity of cultural landscapes that exist even within one thematic group. In particular the fishing community appears to have developed an inherited ancestral knowledge of fishing practices that is analogous to the indigenous fishing communities of the Pacific Islands regions. This knowledge is often expressed informally as folklore, and extends to specialist knowledge of seasonal and spatial availability of fish and ancillary resources, climatic indicators, traditional fishing practices, history of the fishing community and superstitious beliefs. An informal toponymy for places of fishing resources has also been illuminated, which records fishing resources areas and their associated history, and of which knowledge is often restricted even within the local community.

At first glance, the fishing community were portrayed by a number of informants as an egalitarian sub-culture of Queenscliff society, a world of equal opportunities where rewards were based on hard work and experience that could lead to good fortune and the respect of their peers. However, fishing knowledge particularly of individual species locations was often closely guarded and represents a degree of territoriality towards resources. The external perceptions of unity within fishing society often masked internal social differentiation and underlying tensions within the community that were based on different social status that was associated with age, experience and gender.

It has been demonstrated that the evolution of fishing landscapes was influenced by a number of diverse factors, but primarily by the seasonality of resources availability. The cyclic nature of fish stocks influenced not only the working practices of fishermen and the development of associated material culture, but also shaped the cognitive perceptions of the area. These insights into fish habitats, weather and other phenomena generated new folklore and oral histories that imbued meaning to seemingly intangible and “natural” places. These understandings were also used as a social ordering mechanism, where access to restricted knowledge was used to discriminate between community elders, and later to define one’s membership within the fishing culture. Furthermore, the migratory nature of fishing practices has been shown to affect the residential landscape of fishermen, and has led to seasonal links between other communities, which are connected by cognitive waterborne routes. Localised fishing landscapes have also been driven by environmental determinants on many levels. Changes in coastal shorelines as a result of both geomorphologic and

culture influences have led to several transpositions of fishing harbours, mooring sites and boat building ventures.

Economic market forces have also driven and been driven by fishing landscapes. It has been shown that fish prices drove the viability of fishing to make a living, and that the subsequent paucity or glut of supply then drove the market. These mechanisms were eventually harnessed by the fishers, and used to steer prices to their advantage. It has been further shown that folklore and ideologies such as superstition and religion also played a role in the manipulation of the market and its working times.

The heavy reliance of fishers on shore-based resources to supplement or substitute their income demonstrates the inherently problematic notion of a land- sea divide when applied to maritime studies. As has been illustrated, fisher folk not only stamped their presence on the sea, but also on land, where their recreational, business and familial affairs have created firm presences and landscapes that drive the local community. The degree of accumulated ancestral knowledge in this area has obvious parallels to indigenous societies, a remarkable feat given that fishers have a relatively limited presence of 150 years in the region. As has been alluded to repeatedly above, traditional knowledge from overseas fishing societies may have been imported with the arrival of foreign fishermen, who brought their cultural practices and material culture with them, thereby reinforcing the notion of transported landscapes in this area.

Exploitation of specific fish resources of the industry has also been shown to produce divergent landscapes, even amongst fishermen, which further demonstrates the individual nature of landscapes and the depth of detail which these types of studies can investigate. Gender has also been demonstrated to be a significant determinant of landscape generation and differentiation. In particular, individual members of the community may often have access to some landscape areas where admission to others is denied based on gender or initiatory status. The social ramifications of this observation will be discussed further in Chapter Eight, along with the fishers' relationships with other community groups. Furthermore, the existence of an initiation process has been shown to facilitate the progression between child and adult male fishing landscapes, whilst also imbuing power based on age for older fishermen, which again has parallels with indigenous cultures. These practices have led to revered landscape features, some of which are still evident within the town.

The initial relative paucity of archaeological and historical evidence of the fishing community has demonstrated the necessary reliance on ethnography and oral histories for analysis of these sub-cultures. As shown from the evidence above, fishermen essentially represent hunter gatherer groups, and the investigative use of informal traditional knowledge networks has parallels to studies of other indigenous groups engaged in similar practices worldwide. Although some locations used by fishers may reveal negligible archaeological evidence or may be widely dispersed across large areas, it has been demonstrated that even small finds can significantly inform on wider work practices and daily life. It is also notable that fishing and its associated activities have contributed to biological/coastal change numerous ways, which in turn has altered the physical landscape itself. These environmental alterations are in themselves significant archaeological indicators of the presence of fishing landscapes.

To summarise, fishing practice is largely driven by seasonal availability of resources, market demand and other economic forces, and environmental determinants and changes, which pervade and change the communities' landscapes. This chapter has demonstrated the multivalency of fishing community landscapes that exist within a particular sub-group of the Queenscliff society. In particular, the collection of oral histories, folklore and recorded memoirs has elucidated an area of social history that has until now been largely ignored in official historical records, and demonstrates the importance of these sources for alternative social analysis of (often poorly documented) cultures.

The next chapter will examine Queenscliff from another direction, and the effects of an introduced event in the form of shipping disasters. In this case, the multivalency of singular incidents will be examined from many different and often conflicting viewpoints, where the community is both galvanised and polarised in their subsequent reactions.

And the clamorous bell spake out right well
To the hamlet under the hill,
And it roused the slumb'ring fishers, nor its warning task gave o'er,
'Till a hundred fleet and eager feet were hurrying to the shore. (Treanor 1904:132)

The cargo was piled breast high on the shore for a mile and the wreckers of Queenscliff and all the district around had a great time. All the drays and spring carts were commandeered, and on Saturday afternoon there was a steady procession of vehicles rolling into the Cliff, loaded up with every variety of goods, cartes of crockery, bales of drapery, bundles of brushware of every kind, in fact an innumerable list of articles. The Customs authorities had not taken any action, and the police seemed to think it was a case of flotsam and jetsam, where finders were keepers. It was too late on Saturday evening when the lot arrived for us boys to make for the wreck, but at daylight on Sunday morning a band of us were off hotfoot to share in the plunder...I was business bent. I had a private tip that there was some good things planted in the ti-tree scrub above the sand dunes on the Saturday, by folk who were too heavily laden to carry away all they had gathered. Seeing the patrol on the beach, I restricted my searches to the scrub and was quickly rewarded with the discovery of an iron bath tub full of all sorts of brushes of every kind...(Dod 1931:68)

Chapter Seven: Shipwreck, Smuggling and Salvage Landscapes

1) Introduction

The sea is a tempestuous and unpredictable medium, and its many moods have accounted for numerous shipping tragedies since time immemorial. The abundance of treacherous shorelines close to ports has led to many coastal townships being exposed to a multitude of nearby shipping tragedies. Although the physical remains of shipwrecks have been well documented around Australia, little consideration has been paid to the effects that such catastrophic events might inflict upon nearby communities. The study of the consequences of shipping mishaps on coastal communities, and how these essentially external influences might affect the cultural landscapes development of a community offers another dimension to cultural landscapes studies.

The shipwreck resource in Australia has been well documented and provides ample indications of what shipwrecks represent in terms of technical construction specifications, transport and trade links, and cargoes carried. Shipwreck studies highlight an inherent problem in archaeology (Gavin-Schwartz and Holtorf 1999:5), as for many of its practitioners, shipwrecks represent episodic and isolated events which signal the transformation point of these cultural features from the systematic to the archaeological context, and thereby a terminus of cultural utility. Nowhere is this more evident than in the often used term “time capsule” (Muckelroy 1978 56-7; Dean et al. 1996:32;

Gould 2000:12-3). However, this approach is somewhat insular, as most shipwrecks (particularly in Victoria) occurred within the coastal arena (often close to townships), and therefore site specific interpretation disregards the possible effects of these catastrophic events on neighbouring communities. These incidents potentially stimulate a range of reactive behavioural traits and cognitive perceptions from nearby residents that have not been previously explored, and which may offer new understandings of the effects of shipping mishaps on local societies.

This chapter will demonstrate the impact of shipwrecks and strandings on the town of Queenscliff, and consider what they have added to the cultural landscapes of the community. As will be shown, shipwrecks were continuously utilised long after the wrecking event, playing an active role not only as an ongoing economic resource, but also in the formulation of a social relationships both within and outside the township. The types of behaviour associated with two distinct stages of maritime mishaps will be examined, the first being that linked directly with the shipwreck event, where the ship is transformed into a shipwreck, and secondly, the cultural practices associated with resources generated by maritime disasters, whereby the shipwreck becomes a place in the environment over the longer time period.

Although several authors have noted the historical occurrence of salvage and looting associated with shipwrecks in the study area (e.g. Foster 1987, 1988; Loney 1989b; Anderson 1997a; Anderson and Cahir 2003), little analysis of the effects of these events on the local communities has been undertaken (with the exception of Fielding 2003). Countless newspaper accounts and oral traditions detail the utilisation of these sites, both during and after the wreck event, which inform of the shipwreck site formation processes. Furthermore, there is also a suite of other sites associated with shipwrecks that are largely unrecognised in archaeological literature (such as stranding sites, and flotsam and jetsam traps). The behaviours associated with the generation of these and other site types may reveal community responses to wrecks, and how wrecks have affected the social environment, demography and geography of Queenscliff itself. For the purpose of this section four types of sites/events/landscape features will be investigated: shipwrecks, strandings, and flotsam and jetsam traps. It will be shown that in general there is little perceptive distinction between the four site types within the local community, as the difference lies in the amount and type of material available, and that they all represent economic opportunities. The problem addressed here is not necessarily what type of resources the sites are characterised by, but what these sites mean for the Queenscliff community. Therefore for the purposes of this chapter I will treat these events generally under the same banner to begin with.

This chapter has been structured slightly differently to other sections, as it seeks to examine community landscapes from a different direction than those previously addressed. The complex interactive nature of community relations associated with shipwrecks and their subsequent exploitation has necessitated the use of an often seemingly disjointed historical narrative, that jumps backwards and forwards between sub-themes, but whose reasoning will become apparent as the chapter progresses.

2) Shipping Mishaps at Port Phillip Heads

The causes of shipwrecks at The Heads have been extensively attributed to the dangers of striking the often uncharted rocks and reefs (Heritage Victoria Shiplist Database; Williams and Searle 1963; 1964; Loney n.d. a, n.d. b, 1971, 1981, Arnott n.d.; Naylor n.d.; Foster 1987-1990; Wealthy and Bugg 1995; Anderson 1997a; Anderson and Cahir 2003; Love 2006). Many vessels tore open their hulls on the rocks at Pts Nepean and Lonsdale, and were either wrecked at those locations, or foundered inside the Bay as water filled their hulls (Figure 7.1). Some ships sank as a result of collisions and some ran aground on sandbanks and were subsequently destroyed by storms. Vessels that could not be removed became shipwrecks (also known as “total constructive losses”), whilst successfully removed vessels were termed strandings (Broxham and Nash 2000: x). Gibbs (2006) refers to the latter sites types as “phantom shipwrecks...the ones that got away”.

The first documented shipwreck at The Heads occurred in 1840, when the cutter *Prince Albert* went ashore at Port Phillip Heads (Bateson 1972:149). Since then, innumerable shipwrecks and strandings have occurred in the area, with the hulks of over 95 wrecks lying within 10 km of The Rip, both inside and outside the Bay (Foster 1987-1990; Anderson 1997a, Anderson and Cahir 2003 – see Figure 7.1). The proximity of the wrecks to the coastline, popular resorts and other essential services has led to a rich historical documentation of these events, along with an extensive collection of images of vessels ashore on shallow reefs at both sides of The Heads.

Poor navigational services initially contributed to numerous strandings of vessels, particularly inside The Bay where vessels often grounded on the constantly changing sandbanks and uncharted rocks. Previous historical research has identified well over 100 strandings or collisions in the study area (see DPH 1959/ Miller 1860/ Cole 1860, 1865 as cited in Taylor In Prep; Williams and Searle 1963, 1964; Loney 1971:143), which has been supplemented by the author’s own selective primary research (see Appendix F-1). The first stranding in Port Phillip occurred in 1831 before the

establishment of any permanent European settlement, when the cutter *Lively* washed ashore (Bateson 1972:93). The first stranding positively identified inside the study area occurred in 1839, when the cutter *Superb* went aground in the West Channel (Williams and Searle 1964:83).

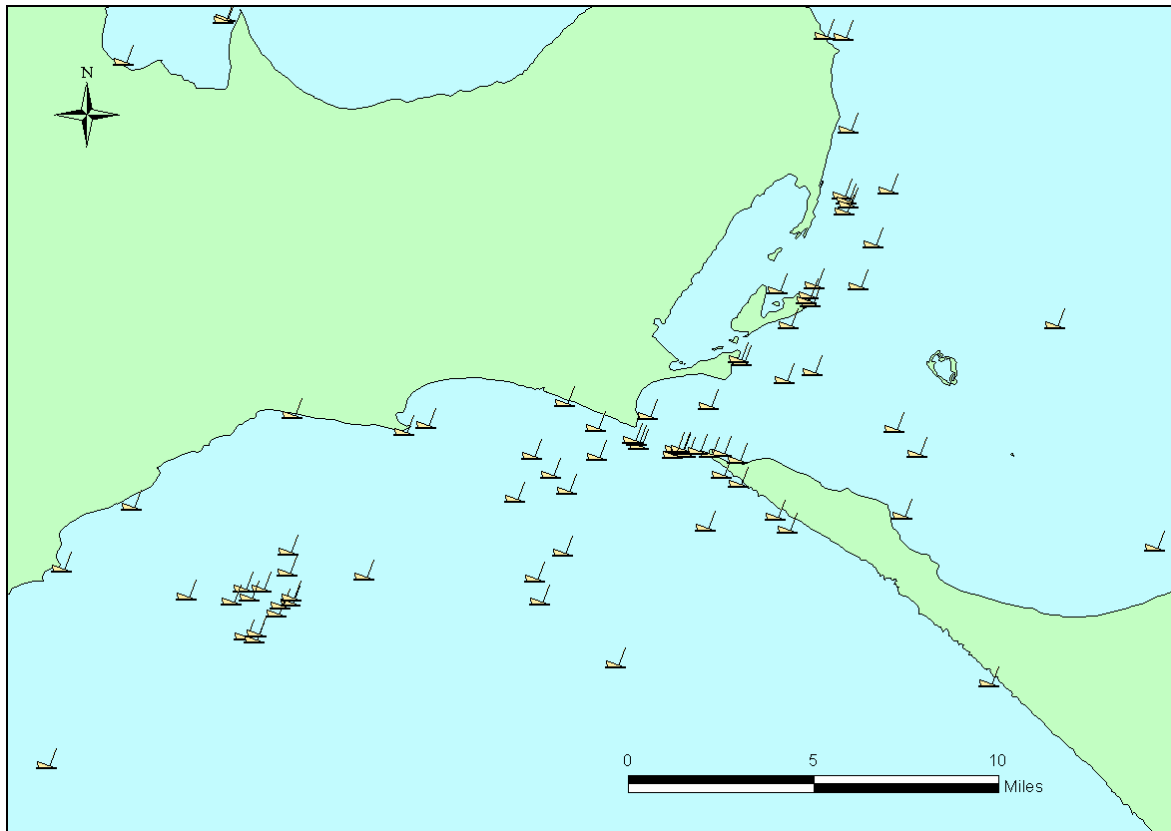


Figure 7. 1: Distribution of archaeological known shipwrecks around The Heads.

3) Shipping Disasters as Events and Places in Maritime Communities

A cultural landscapes approach enables shipping mishaps to be viewed from multiple perspectives, both as an event and a place. Wrecks may initially be perceived as the scenes of disastrous calamities, and as such are the settings of frantic activity to save life and cargo, and might be interpreted as the nineteenth century historical equivalent of a modern day jumbo jet crash [PH]. Alternatively shipwrecks can also represent new places in the landscape, which fill or reconstitute the space/place that preceded them. They may embody multiple meanings to different people, through their tangible symbolic representations of historical events (e.g. grave sites), contested space, or memorials of significant incidents (Gibbs 2005).

The role of wrecks, strandings and other associated sites as centres of social activities (and associated behaviours) requires further examination. Gibbs (2002, 2003, 2006) has outlined a sequence of actions and behaviour that takes place after a shipwreck has occurred (Figure 7.2). The first phase involves the actual wrecking event, followed by subsequent rescue attempts, and possible official salvage claims to the wreck. These are followed by stages of physical salvage at both official and illegal levels, and distinct behavioural practices associated with long term exploitation of the wreck. These phases and their associated behaviour have been used as a guide for investigating the various activities and behavioural traits associated with shipping mishaps around The Rip.

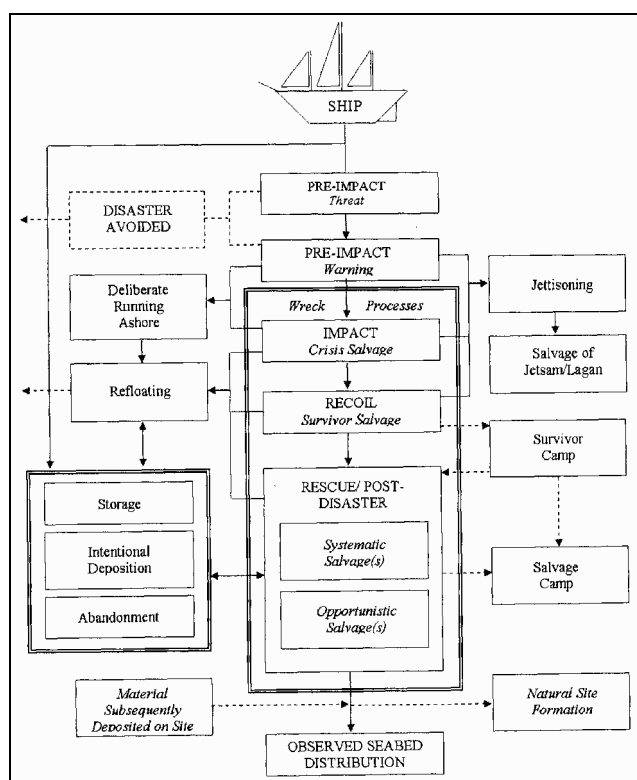


Figure 7. 2: Flow diagram of stages of cultural deposition on shipwrecks sites (Gibbs 2006).

Shipwrecks around The Heads usually prompted a range of official and unauthorized responses from the Queenscliff community on many different levels which were instigated to save lives and property. However, shipping mishaps also represented significant economic opportunities for salvage by a range of social groups, which were at once both routine and opportunistic, a dichotomy that will be further explored below. These official and unofficial responses were shaped by (and helped shape) not only subsequent practices at wreck sites, but also the physical and cognitive culture of the township itself.

A) Shipwrecks and Strandings as Events

I) Strandings Events and Reactions (Impact Stage)

Strandings represent a previously unexplored archaeological resource in Australia. Aside from the recovery of isolated anchors lost from vessels when anchored or aground, few deposits from stranding sites have been documented in Australia (see Henderson 1980:90; Knuckley 1988:3). Several researchers have recognised the potential significance for archaeological investigation of stranding sites (Duncan, 2000:56, 2004c; Gibbs and McPhee 2004:46-7).

Although stranding sites are often overlooked as the ship involved in the incident is no longer present at that location, historical accounts have documented numerous instances of large quantities of cargo and ballast jettisoned in attempts to lighten and refloat vessels (see Table 7.1; Williams and Searle 1963, 1964; Loney 1971). It was not possible to plot the exact locations of most of these sites, as many were described on in only general terms, and most have not been previously investigated archaeologically. In one account, over 50 tons of general cargo was thrown overboard when the *Victory* stranded in Lonsdale Bight (MMH 19/8/1850:2). Many wrecked and stranded coal carrying vessels lost or discarded their cargoes around the vicinity of Shortland's Bluff or Lonsdale Bight, including the *SS Milora* which discharged 1500 tons of coal into the sea (Williams and Searle 1963:54). Stranding sites therefore present an opportunity to study shipping mishaps that may only be evident from cargo or discarded structural remains.

Vessel	Date	Location	Cargo	Source
<i>Victory</i>	1850	Victoria Shoal	General, slate, iron pots	MMH 19/8/1850:2
<i>Lady Peel</i>	1852	Queenscliff Bight	Coal	GA 7/6/1852:2
<i>Success</i>	1862	Queenscliff Bight	Coal	GA 20/4/1862:2
<i>George</i>	1862	West Channel	Coal	Cole 1865:8
<i>Hindoo</i>	1863	South Channel	Coal	Cole 1865:10
<i>Success</i>	1863	Shortland's Bluff	Coal	Cole 1865:10
<i>SS Barwon</i>	1866	Lonsdale Bight	Coal	GA 28/6/1866:2
<i>SS Wodonga</i>	1882	Lonsdale Bight	Coal	Dunn 1949:55
<i>Endeavour</i>	1891	Bell Rock	Maize, general	BA 2/6/1891
<i>SS Milora</i>	1934	Victoria Shoal	Coal	Williams and Searle 1963:54

Table 7.1: Identified cases of jettisoned cargo from historically identified strandings around Queenscliff.

Strandings had obvious visual impacts on the community, particularly when they occurred close to shore. One informant recalled witnessing the stranding of the *SS Milora* (Figure 7.3):

I remember that I was 4 years old when that happened. My parents had taken us over to the beach with my brother to look at this ship. It was close to the Clark Beacon and closer to Pt Lonsdale. This was an enormous ship up on the beach. [JP]

Similarly, when the 39000 tonne tanker *Golden Gate Sun* ran ashore off the Queenscliff Back Beach (see Figure 7.4) it presented an imposing site that towered above the lighthouse and other beacons in the area (Wane 2003:51).



Figure 7. 3: *SS Milora* stranded on Victory Shoal (Photo: John Patrick Collection from QHM Collection).



Figure 7. 4: *Golden Gate Sun* ashore at Shortland's Bluff in 1984 (Photo: © Rodney Nicholson, Sea Gems Gallery, Queenscliff).

II) Unofficial Stranding Areas to Prevent Vessels Becoming Total Wrecks (Recoil Stage)

One phase not examined by Gibbs (2003) involved behaviour where vessels were deliberately ran aground on shallow shelving beaches to stop them from sinking into deeper water after their hulls were unexpectedly holed. Despite the presence of a complex network of navigational beacons, many vessels often struck uncharted rocks, causing serious damage to their hulls. Local researchers [DL; PF] have observed that, in order to prevent distressed vessels from sinking, many vessels were often deliberately run aground or beached in the shallow and gradually sloping waters off Swan Island Spit, Popes Eye, Pt Nepean Beach or the Mud Islands as these areas were better protected than Lonsdale Bight from sudden gales. This practice enabled the vessel to be repaired or sufficiently lightened to continue its journey, by either throwing cargo overboard or through its transferral to lighters. The first historical evidence of a deliberate stranding was reported when the barque *William Salthouse* was run ashore in Nepean Bay in 1841 (Williams and Searle 1963:1).

Several similar instances were reported from 1852-55, when a number of vessels were intentionally grounded in Swan Bay after they had torn open their hulls on Corsair Rock:

The *Marie* made water so fast after striking [Nepean Rock] that to save her life, the pilot...ran her ashore in Swan Bay, near the spot where *St George* was stranded...(GA 16/11/1853)

A Queenscliff pilot reported this practice was used as early as 1855, and in particular Swan Island and Swan Bay (north of the Swan Spit Buoy, where the lighthouse stood afterwards) presented the most favourable conditions, as it was sheltered from most of the prevailing winds and was close to a settlement (Draper 1900:8-9). This practice was evident in several other historical accounts:

The Ship *St George*...arrived at The Heads on Tuesday...she got on some rocks off Pt Nepean, and struck heavily for a few minutes. The force of the current carried her clear of the rocks, but so leaky that the pump could not keep the water under. The Captain then...got inside of Pt Lonsdale, where a pilot was got on board – there was now seven feet of water in the hold in spite of an incessant pumping. He decided to take her into Swan Bay, and beach her, which manoeuvre was safely effected...The ship is described to be in a perfectly safe position, beached in Swan Bay, and the Captain is confident that he can get her into harbour after discharging a portion of the cargo. (MMH 31/12/1852)

Vessel	Date	Location	Source
<i>William Salthouse</i>	1841	Nepean Bay	Noble 1979:7, 45
<i>Marie</i>	1852	Swan Spit	DPH 1859; GA 16/11/1853; MMH 31/12/1852 (as cited in Love 2006)
<i>Ontario</i>	1852	Swan Spit	DPH 1859; <i>Argus</i> 31/12/1852:4 (as cited in Love 2006)
<i>St George</i>	1852	Swan Spit	<i>Argus</i> 31/12/1852:4 (as cited in Love 2006)
<i>Marchioness</i>	1853	Swan Spit	DPH 1859; <i>Argus</i> 16/11/1853 & 17/11/1853 (as cited in Love 2006)
<i>Antoinette Cezard</i>	1854	Swan Bay	DPH 1859; Williams and Searle 1963:17
<i>Lady Harvey</i>	1854	Queenscliff Bight	Williams and Searle 1963:1
<i>Prince of the Seas</i>	1854	Pt King (Sorrento)	DPH 1859; Williams and Searle 1963:16
<i>Empress of the Seas</i>	1861	Nepean Bay	Simpkin n.d.:9
<i>Emily</i>	1877	Queenscliff Bight	Williams and Searle 1963:17
<i>Lulu</i>	1883	Queenscliff Bight	Anderson 1997a:29
<i>Trusty</i>	1883	Nepean Bay	Williams and Searle 1963:37

Table 7.2: Cases of deliberate strandings identified from historical research in the study area.

Deliberate beaching was also used in cases where vessels were ablaze, as was the case with the *Empress of the Sea* where: “the cables had been slipped and the vessel ran on shore as far as she would go” (Simpkin n.d.:9). This practice was also undertaken place at the Mud Islands/Great Sands Bank and Popes Eye Shoal [DL; PF].

Deliberate stranding sites in the study area are shown in Table 7.2 and Figure 7.5. The role of strandings as a deliberate hazard prevention practice amongst coal vessels in the Gippsland region of Victoria has been investigated by Duncan (2000, 2004c), who suggested that these vessels deliberately sailed closer to the coast than advised, so that if these often dilapidated ships got into difficulty, they could purposely strand on the beach rather than risk foundering at sea.

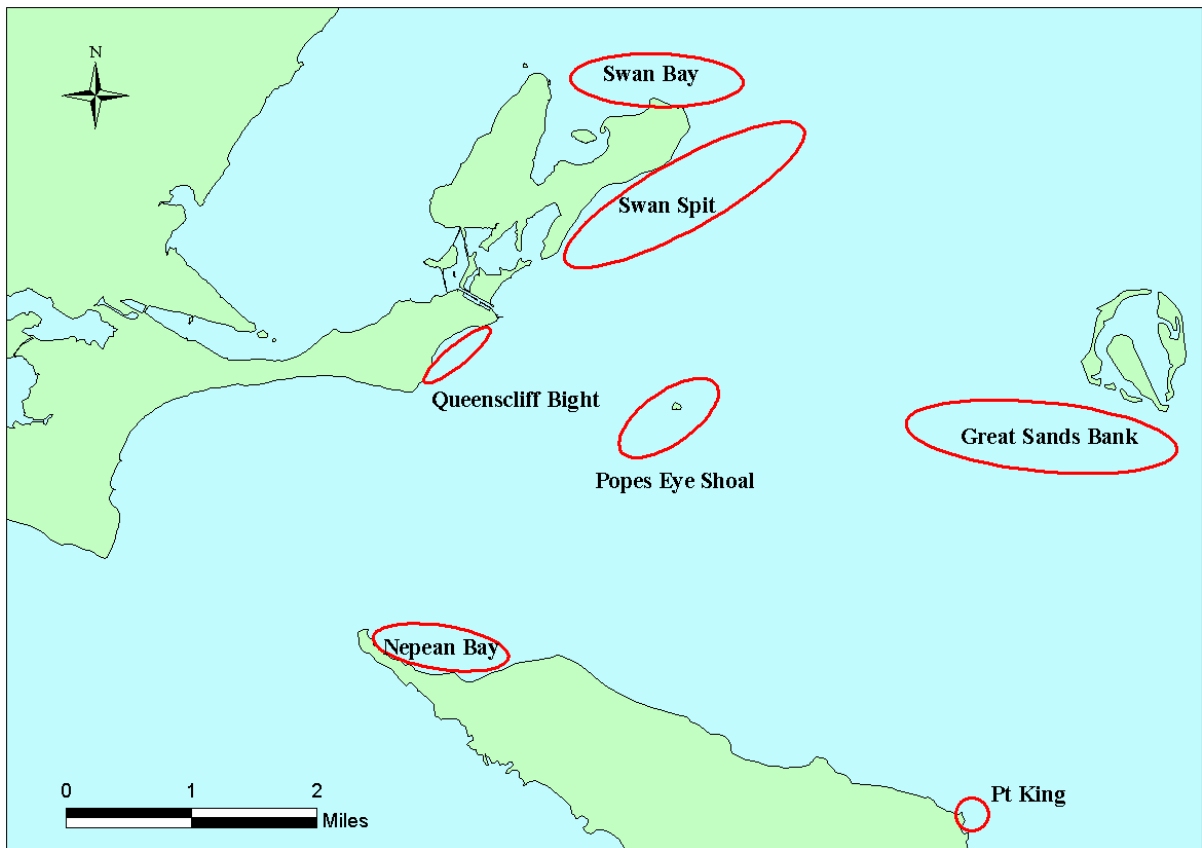


Figure 7.5: General locations of known deliberate stranding sites in the study area.

III) Altruistic Responses to Shipping Mishap Crises (Rescue/Responsive Stage)

If a ship could not be saved through deliberate stranding and/or subsequent refloating, it became a shipwreck, an incident that was experienced and perceived differentially by diverse groups within and without the community. As such the wrecking event can be divided into a number of distinct landscapes dependent on the experience and perspective of those involved. Furthermore, as will be demonstrated below, community members exposed to shipping mishaps often experienced multiple perspectives of the same event.

The initial shipwreck event often attracted large numbers of visitors to the site for sightseeing (e.g. GA 4/1/1872), and to render assistance wherever possible. Many historical accounts and images show large crowds of people gathered by the wreck (Figures 7.6), presumably both for humanitarian and other reasons, which will be explored further below.

(a) Lifeboats and Lifesaving: Rescuers and Wreck Management Landscapes of Port Phillip

In the late eighteenth and early nineteenth century, almost a third of British seamen would die either from accidents on board or in shipwrecks (Bathurst 2000:2). The massive loss of life associated with early UK shipwrecks led to the design of many innovative life saving devices from around 1808 onwards, including Manby's lifesaving mortar (that fired a shot weighted rope to wrecked vessels) and lifesaving vessels with watertight compartments which were the forerunners of modern lifeboats. By 1824, the Royal Society for the Preservation of Life from Shipwreck (England) was established to facilitate organised rescue of shipwreck survivors (Bathurst 2000:2-3). These landscapes of shipwreck management (see Duncan 2000, 2004c) ordered and directed physical resources and people to not only co-ordinate the rescue of shipwrecks survivors, but also address their subsequent welfare after the event.

The initial agglomeration of shipwrecks around Port Phillip Heads fell within the same period of the development of lifesaving services in the UK and eventually led to the establishment of a lifeboat service at Queenscliff and similar shipwreck management regimes. From the 1840s onwards pilots were expected to assist all distressed vessels, which became a formal requirement from 1852-56. When the *Sacramento* wrecked at Pt Lonsdale in 1853, both pilot boats were used to assist, and the pilot later proceeded to an incoming vessel immediately from the wreck (Draper 1900:10). The Health Officers yawl was also used for this purpose (see Figure 7.7). An ordinary ship's lifeboat was put into service at Shortland's Bluff in 1856 as the first dedicated lifeboat, and was moored off the Customs Quarters (near the current Pilots Jetty).

A series of purpose-built lifeboats were constructed from 1858, the first (*Queenscliff*) being mounted in a shed (constructed 1860) on the northern arm of the Queenscliff Pier, where she was lowered using falls and from which she was manned for 30 years (Raison 2002:26). The oared vessel was rowed by 10 men, and had a Coxswain, Bowman and Superintendent (who was the Head Lightkeeper). After the wreck of the *Gange* in 1887, public scrutiny highlighted the necessity for a

lifeboat to be stationed at Pt Lonsdale after time was lost rowing from Queenscliff to Pt Lonsdale. A new larger self-righting lifeboat (Pt Lonsdale Lifeboat #2 - later known as the Queenscliff Steamer Pier Lifeboat) was purpose built, along with a pier and lifeboat shed at Pt Lonsdale (Noble 1979:48; Boyd and Roddick 1996:3). However, when the Pt Lonsdale pier (Figure 7.8) proved inadequate for the size of the new vessel, it was exchanged with the *Queenscliff* (lifeboat) and the new lifeboat was housed in the shed (built for the previous lifeboat in 1888-89) on the new Queenscliff Steamer Pier. The presence of two lifeboats in the same area enabled their crews to practice their lifesaving and rocket skills with and between boats, but the *Queenscliff* lifeboat was never involved in any rescue attempts during this time (Boyd and Roddick 1996:3; Rasion 2002:27, 37). A new motor driven lifeboat, *Queenscliffe*, was purpose built in 1926 to specifications of the RNLI (QS 26/4/1919). It was shifted to the New Pier after the Cut caused sand accretion around its launching ramp on the Fishermen's Pier, and was moved to deep water in 1949 ([JB]; Rasion 2002:28). From the 1950s onwards, a search and rescue service was established to coordinate searches for smaller vessels such as pleasure craft. When the search and rescue service was disbanded in 1979, the lifeboat was also decommissioned (Noble 1979:49). Further details of the lifeboat service and lifeboats and a summary table are contained in Appendix F-2.



Figure 7. 6: The *Gange* wrecked at Pt Lonsdale (Marine History Postcards, Jack Loney Collection).

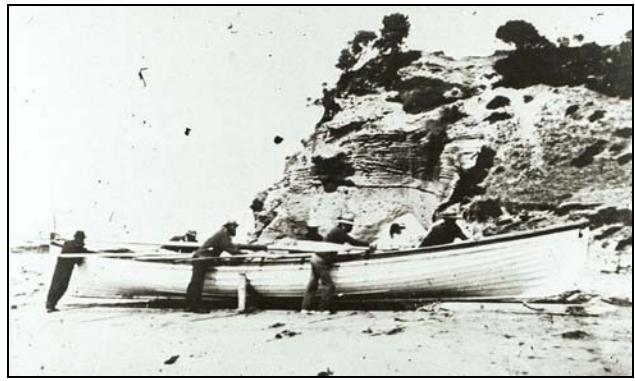


Figure 7. 7: Health Officer's yawl, c. 1864 (Photo PH42, Baillieu Collection, PH 42, QHM Collection).

The lifeboat was primarily intended to service the regions around The Heads at Queenscliff, Pt Lonsdale and Pt Nepean, occasionally up to 3 miles out to sea, and as far as Barwon Heads or Cape Schank. The lifeboat also serviced inside the Bay, up the West and South Channels and around the Mud Islands (GA 18/4/1867:3). However, in 1932, the lifeboat was called on to rescue crew from the *Casino*, which had gone ashore at Apollo Bay, but they were recalled before they had gotten past Barwon Heads as the journey would have taken six hours (Boyd and Roddick 1996:13-4).



Figure 7. 8: Pt Lonsdale lifeboat shed and pier, c. 1890 (QHM Collection Display).

(i) Sequence for Rescues

(One) Emergency Personnel

Whenever wrecks occurred around The Heads, a series of pre-planned and organised actions were instituted. International regulations at the time specified that light rockets and blue flares were to be used as signals of distress in times of shipwreck (GA 1/2/1872:2; Draper 1900:9). Wrecks were often first observed by the Signal Station on Shortland's Bluff (which appears to have been the watchdog for The Rip area around the 1870s) as the Queenscliff postmaster or the signal station staff were often the first to report a wrecking incident (Dod 1931:13, 21, 39; Boyd and Roddick 1996: 12). The Pt Lonsdale Flagstaff was also used to convey messages of wrecks further to the west along the beach (QS 27/3/1886). The Lighthouse Keeper was officially appointed as the Superintendent of the Lifeboat, and was responsible for the administration, reporting, and safety of the vessel and crew, with the Coxswain in charge when at sea (Boyd and Roddick 1996:3). Most of the crew were young (but experienced) "Queenscliff lads" (W. Baillieu, In QS 30/1/1887). The lifeboat could not be launched without the Superintendent and Coxswain present, and the crew ranged in number from eight to eighteen, dependent on who was available at the time. Permission to launch the lifeboat was required from the Harbour Master, and this often delayed the launch, sometimes by hours, during which lives were periodically lost. Emergency call-outs were later regularly transmitted from the Queenscliff Post Office to the Light House Keeper via the telegraph (Boyd and Roddick 1996:3, 6, 14).

Lifeboat service was extremely dangerous work, and the crew were handpicked from experienced seamen (QS 20/1/1894). It was originally crewed by members of the Customs, Health and Pilots Boats (Fanning 1892b; McGrath n.d.:1; Boyd and Roddick 1996:3). Fishermen had joined the service by 1861 (Fanning 1892b), and formed the entire crew after the Customs and Health Boats

crews were withdrawn from Queenscliff around 1867, and were commanded by the Lighthouse Service Superintendent (GA 18/4/1867; Raison 2002:26). Fishermen were the natural choice for the lifeboat crew:

...fishermen had a better knowledge of The Rip than pilots. The Pilots stuck to one entrance, the fishermen worked The Rip, knew the currents, swell, and seas. Fishermen knew The Rip, knew every swell that came in. Pilots knew The Rip to suit the job. [JB]

This sentiment was reiterated by historical local newspapers, who stated that the boat was manned by: “a crew of hardy and experienced fishermen who know the eddies, currents and dangers of The Rip as well as they know Hesse St” (QS 10/12/1892).

(Two) The Wreck Bell and Lifeboat Launching Procedures

When a shipwreck was reported, a wreck bell was rung to alert the community and particularly the lifeboat crew. Wreck bells were integral components for many coastal communities and wreck bells were located at both Sorrento (NHS 1966:63) and Queenscliff (see Figure 7.9) where shipwrecks were common events. The original Queenscliff alarm bell was mounted on a flagstaff at the signal station (Figure 7.10) close to the black (High) lighthouse by at least 1877 (Dod 1931:13, 21, 39; [LID]). However, the bell could not be heard by the lifeboat crew at the bottom of the hill in a south easterly gale, which led to complaints that the bell’s location was unsatisfactory (GA 20/7/1871:3). A new bell provided by the Ports and Harbours Division (PWD) was erected on the corners of Gellibrand and Wharf St in 1891-92 (Boyd and Roddick 1996:5).

The bell was only ever rung in the event of a maritime emergency involving a wreck where the lifeboat was required, and had a very unique tone that could be distinguished from the fire alarm bell located in Hesse St near the post office ([LID; PF]; “Bluelight” 1912). In 1890, a reward was suggested for the first person who rang the bell during times of shipping mishaps (QS 5/9/1891). During disasters, the bell was sounded continuously for 15 minutes (QS 10/3/1894), and all the voluntary lifeboat crew ceased all other activities and ran to the lifeboat shed. The lifeboat crew was always available for service, and boasted that they could be ready for service within 12 minutes of the bell tolling (Ferrier 1991:4). The procedure for launching the lifeboat was described in a local newspaper:

...suddenly the alarm bell rings out, The clanging of the bell startled many a one at their comfortable fireside, its clanging tones rousing into instant action the hardy lifeboat men. As the iron tongue of midnight prolongs its clamorous appealing, it seems to voice the terror and helplessness of the shipwrecked, making the night darkness vibrate with sounds, indeed such heart shaking music once heard can never be forgotten. The large

crowd which rapidly gathers is informed that a ship is ashore at Pt Lonsdale Reef. (QS 24/9/1892)



Figure 7. 9: Location of alarm bells in Queenscliff.

Competition for a position in the Queenscliff lifeboat appears to have been fierce in the early days. Tom Dickson, superintendent of the lifeboat crew reported in 1887, that “in a few minutes we had double the crew that we wanted for the lifeboat” (QS 30/7/1887). In 1919 (QS 26/4/1919), it was reported that up to 30 people would show up for 12 places when the wreck bell was rung, and that the trouble was not in getting volunteers, but preventing them from getting into the boat. The problem became so acute that after the first 16 men from the No. 1 Lifeboat had reported for duty, the lifeboat shed doors were locked to prevent others entering the shed (Kerr 1985:73). However, in later years (1949), there was less haste when the bell was rung:

...there was no rush or panic to get launched...my family stayed tucked up in bed, while my father wandered over to see what needed to be done. [LID]

The original lifeboat launch procedure was described as follows:

At the pier, I met my fellows running quickly to the spot, and in a few minutes we had at least double the crew we wanted to man the lifeboat. Our boat is manned in the same way as the Humane Society, that is...a superintendent, a coxswain, a boatman, and as many men as there is oars, in our case 10. We quickly lowered the boat, which always hangs fully equipped for active service at a moments notice...from davits at the pier. (Dickson 1887).

Later launch procedures varied with the introduction of a motorised lifeboat mounted on an inclined slipway (see Figure 7.11):

The wreck bell was rung [organised] from the lighthouse, who got in touch with the coxswain of the lifeboat who would ring the wreck bell. Then all the crew would come down and they would ring anyone who didn't hear the bell. If the coxswain was away then the acting coxswain took over. Everyone had their own duties, and that might have been to put the bungs in, or make sure the cables were out of the way. When the order was given to, pairs of people would run forward to tip the boat over the cradle and into the water. The lifeboat had a Gardiner engine. [HM]

The lifeboat would then be rowed to the wreck, which was no mean feat in often gale force conditions (Figure 7.11; Fanning 1992b).

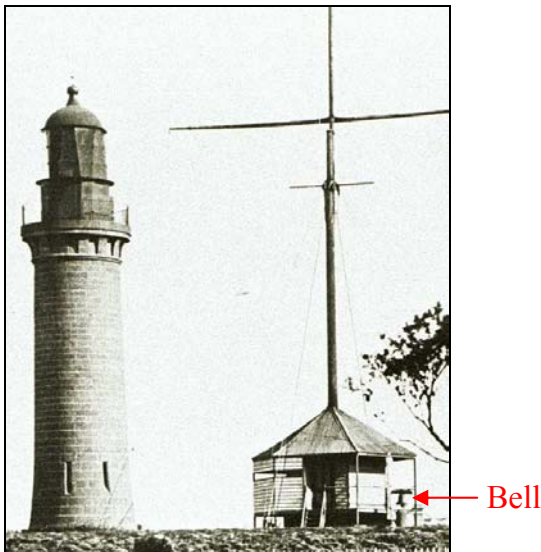


Figure 7. 10: Shortland's Bluff signal station wreck bell, c. 1878. Note High Lighthouse at left (Photo: PH23, QHM Collection).



Figure 7. 11: Queenscliffe Lifeboat being launched (Photo: PH916 QHM Collection).

(Three) Onsite Rescue Procedures and Facilities

Upon arrival at the scene, the lifeboat would indicate with flares to the signal station that they had found the wreck, and would then anchor to windward and drift back onto the wreck. The sequence of the procedure was extracted from a number of newspaper accounts:

...Mr Dickson burnt a blue light in response to the one at Pt Lonsdale. From that we knew that they had sighted the wreck...The line [was] fastened to the kedge [anchor] on which the lifeboat allowed herself to come down to the wreck. (Baillieu 1887)

First we let go an anchor, which kept the boat steadily to sea, then we paid out a rope attached to the anchor, as we slowly backed in towards the vessel...then two long lines were thrown to us...and made fast to the stem and stern, thus keeping us abreast of the barque.. After the rescue I gave the rescued party over to the *Albatross*, which took them across to the Quarantine station at Portsea to get a clean bill of health. (Dickson 1887)

After all had been safely placed in the boat, then it was a case of hauling off on the kedge line, which had to be cut, and pulling out to sea to wait until daybreak to get back to the harbour. At a little past seven all were safely landed on the Queenscliff Pier, and it would be 3 o'clock before the lifeboat crew would have their gallant craft stowed away. (Baillieu 1887)

The lifeboat crew also used a rocket launching device to pass an attached rope to the wreck, which could be deployed either from the lifeboat or from the shore. This was used to pass a thick secure line, which, when tied to the wreck mast could be used to transfer survivors via a breaches buoy to shore (Figure 7.13). Three different types of rockets were used over the years, and are outlined in (Table 7.3, Figures 7.14 and 7.15).



Figure 7. 12: Queenscliff lifeboat approaching a wreck at Pt Nepean (Sutherland 1888a:443).



Figure 7. 13: Deploying a breaches buoy lifeline via a lifesaving rocket at Pt Nepean (NHS Collection, in McMeekin and Braithwaite 2004).

Rocket Type	Date Used	Range	Description	Reference
Manby's Mortars	1858 +	200-300 yards	5 ¼ " diameter brass mortar fired 11 lb projectile attached to a rope.	Syme 2001:27
Dennet's Rocket	Uncertain - sometime between the former and latter devices	Unknown	Single stage gunpowder charged rocket mounted on a pole attached to a line faked into a box.	Mullett 1919:13; Syme 2001:27
Colonel Boxers Rocket	1871 +	500-1000 yards	2 stage gunpowder charged projectile mounted on a 9'6" pole attached to a line faked into a box.	Syme 2001:27; Mullett 1919:20

Table 7.3: Types of life rockets used at Port Phillip Heads.

Lifesaving rockets were originally stored in a gabled weatherboard structure at Pt Lonsdale in 1860 (Syme 2001:27), but later additional rocket sheds were installed closer the most common wreck locations at Pt Nepean (stored in the Customs Shed in 1876 - QS 13/8/1887), Pt Lonsdale (a new brick structure in 1890), Sorrento (a portable rocket shed was built on the Sorrento Pier in 1891, and a more permanent version in 1899) and were also stored at Queenscliff in 1893 (VPRS 2143:

91-2-129; Noble 1979:48; O'Neill 1988:42; Boyd and Roddick 1996:11,13; Raison, 2002:27;). Specific details of rocket rescue procedures are outlined in Mullett (1919).

Before rocket facilities were stationed at Pt Nepean (1876), the lifeboat crew would row across The Rip inside the Bay when shipwrecks occurred at the front beaches at Sorrento or Portsea (particularly in bad weather when it was too dangerous to go to sea), and transfer the rocket launching gear overland to affect the rescue via the ocean beach (e.g. during the *Cheviot* and *Craigburn* shipwrecks -QS 20/1/1894; Welch 1969:43). Later a series a pathways was cut along the cliff faces of the Nepean Peninsula, with tracks leading down to the beach through the scrub to facilitate easier access to any potential local wrecks (McMeekin and Braithwaite 2004). These paths are still evident today as the beach access routes along the foreshore.

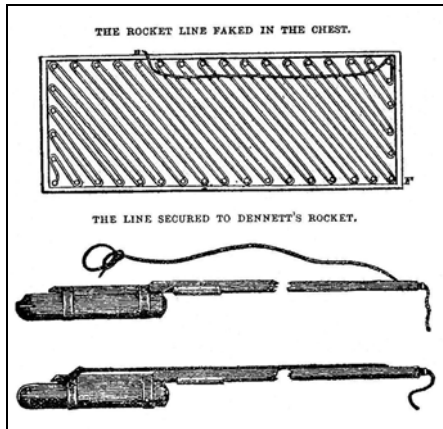


Figure 7. 14: Dennet's rocket apparatus (After Mullett 1919:13).

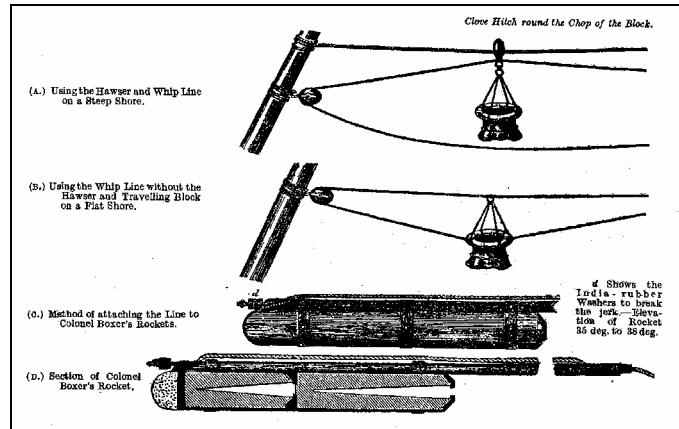


Figure 7. 15: Breaches buoy and Colonel Boxer's rocket setup (In Mullett 1919:14).

By 1894, calls were made to improve and implement the communications (via telegraph) between the lighthouse at Cape Schank, Pt Lonsdale and Queenscliff. When wrecks occurred at Pt Nepean or Sorrento Back Beach they had to be reported to Queenscliff via Melbourne, the folly of which was highlighted during the shipwreck of the *Alert* in 1894.

(ii) Lifeboat Service and Practice

The lifeboat service also impacted the lives of the crew outside times of wreck. Lifeboat practice was usually undertaken on the first day of the month, and consisted of either rocket or lifeboat drills that lasted half a day (Figure 7.16). In the early days lifeboat practice took place outside The Heads, with later exercises held at St Leonards, Sorrento or outside The Rip, with rocket practice at

Queenscliff or Pt Lonsdale (Kerr 1985:73; Boyd and Roddick 1996:3-4). During this time, the crews would inspect and maintain the contents of the lifeboats, and the Rocket Sheds at Pts Nepean/Lonsdale, and conduct rocket firing practice (VPRS 2143). A former member of the lifeboat crew described the rocket practice in the 1960s:

During rocket practice we would set up the apparatus on a certain angle, and would make sure that all the equipment was tied together the right way, and then we connected a lighter rope to the heavier rope that would later be pulled across. We would aim ahead of the target, and you needed to make sure that the rope stayed dry, as a wet rope would limit the range for the rocket. The later modern ones didn't work over considerable distances. The wreck needed to be almost onshore, or otherwise you had trouble firing into the wind. Later on the cost factor meant that the men couldn't physically fire the rockets, so there was no real practice. We also used to practice using the lantern to signal with. [PF]

The practices were well attended by the local fishing community:

They used to do the lifeboat practice here once a month and they would fire off the rocket for practice. The fishermen would always turn up for the practice as you got a pound for it and it was easy money. [GW]



Figure 7. 16: Rocket practice between the Queenscliff and Pt Lonsdale lifeboats c. 1921 (Photo: QHM Collection).

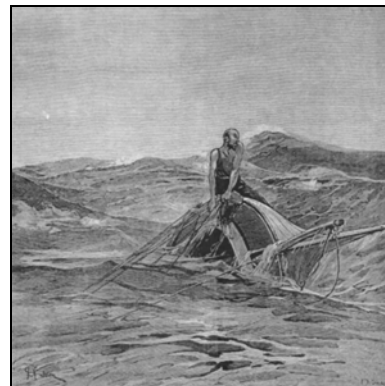


Figure 7. 17: “The fatal boating accident in Port Phillip Bay” (Sleep, IMP 1/1/1890, SLV Collection).

The lifeboat service pervaded many aspects of daily life within the community. The exertion of manning the lifeboat often affected the local football team, as often the Cliff team members had been involved in lengthy rescues (up to 19 hours) prior to the games, or were injured/too exhausted to play (QS 16/5/1891).

(iii) Perceptions of the Lifeboat Crew and Other Rescuers

Those who assisted in wrecks were lauded as heroes, and rightly so. Wrecks most often occurred during gales, and rescuers often placed their own lives at risk to assist shipwreck survivors. Many pilots assisted in the early rescues at The Heads, and this group and members of the lifeboat crew were all highly regarded within the community for their lifesaving work. In 1919, the lifeboat service was referred to “as valuable as digger’s work...There are land diggers and sea diggers”, which drew parallels between them and recently returned war heroes (QS, 26/4/1919). After the rescue of the crew of the *Gange* shipwreck, they were compared to the Kentish lifeboatmen of Deal for their valour (QS 30/7/1887). Many accolades were bestowed on the lifeboat crews (QS 15/2/1890), including:

...the lifeboat...deserves mention, as well as the brave men that are ready in all seasons to risk their lives in the endeavour to save and rescue the storm tossed victim. It is a sight never to be forgotten, to behold this handful of strong athletic fishermen man the lifeboat and bend the oar with a sturdy willingness which speaks volumes for the promptitude which may be expected from them when the real occasion arrives. They form a pretty picture and are deserving of a more extended description than our pen can spare. (QS 7/4/1894)

The heroism of the crews was often compensated by rewards from the government and insurance companies, or charitable funds organised by local or even inland communities (e.g. Ballarat Township) who had interests or brethren who had been involved in the wreck (QS 4/7/1891, 13/8/1897; Fanning 1892a).

(iv) Military Assistance in Shipwreck Rescues

The occurrence of shipwrecks often forced co-operation between the different organisations and services based at The Heads, including the military. Shipwrecks on the ocean beaches of Sorrento to Pt Nepean were often first accessed by military personnel from the fortresses in those locations (e.g. *Cheviot* 1887 - Welch 1969:43). However, the soldiers may have been restricted in their ability to leave the base during disasters due to lack of orders from their senior officers, and were sometimes accused of complacency at times when they did not turn out during times of wreck:

I saw the daring rescue of the crew by the Queenscliff lifeboat, the men of which deserve the greatest praise for their gallant conduct. Another thing I also noticed was the absence of the Artillerymen at the scene of the wreck...was it not their duty to have turned out when the Alarm bell was rung from the lookout station at Queenscliff, and make with all hands to the scene of the wreck...I am an old man...but when I hear the danger signal from outside The Heads. I hurried to the beach...and made my way...to where I could be

of use. Surely Victorian Artillery men are not afraid to face a wet night when precious lives are to be saved? (Neptune, Letter to Editor, QS 30/7/1887)

This did not bode well for the military forces' public image, and by 1887, approval was given to train the defence personnel at Pt Nepean in use of the rocket gear to assist in wrecks (QS 13/8/1887). In later years, military installations also played key roles in searches for survivors, where the searchlights at Crows Nest, Queenscliff Forts, and Pt Lonsdale were used to aid in rescues and the search for the survivors of various strandings, shipwrecks, and collisions [e.g. *Paroo* - 1902; *Edward* - 1912; *Wyrallah* and *Dilkira* - 1926; (QS 5/10/1912; Williams and Searle 1963:47; Boyd and Roddick, 1996:14)].

(b) Shipwreck Survivor Landscapes: Philanthropic Responses

Much sympathy was expressed for shipwreck survivors by the local community, who often sprang into action to assist rescued survivors in any way possible. An 1850s newspaper account applauded the conduct of the Flagstaff and Lighthouse attendants, who “displayed great promptitude in sending a dray to convey the emigrants from the wreck to The Heads, where Mrs Dod (at Government house) hospitably cared for them on this and on other occasions” (GA 2/5/1853:2). Obvious sentiment for the plight of the survivors was regularly forthcoming in the local press:

Although no lives were lost at the wreck [*Sacramento*], the loss of the cargo and luggage must be felt by those to who it belonged. When the immigration agents arrived from Geelong, the scene was heart rendering, as many people as possible had been fed and sheltered by the pilots, but there was neither food nor accommodation for 300 people. Many sufferers were scattered along the beach, wringing their hands in despair...and relatives had lost each other in the confusion. The arrival of the Government agents with provisions and other comforts was a most acceptable relief, and steps were taken to find out the scattered and lost...On arrival of the *Aphrasia* from Melbourne, they safely embarked and were conveyed to Melbourne. (GA 3/5/1853:2)

Other community members regularly displayed great acts of philanthropy towards shipwreck victims. During the *Sussex* shipwreck one local resident loaded his buggy full of brandy, tobacco and other stimulants in case survivors had made it ashore, as was also the case during the *Victoria Tower* shipwreck (GA, 1/2/1872). Prior to the establishment of the town in 1855, shipwreck survivors were commonly transferred to the Immigration Depot at Geelong for processing, where they were offered food and board, and access to employment until they found their own accommodation (Cuzens 1912:1; Kruithof 2002:89). These services were sorely needed as on many occasions the victims had lost everything in the wrecking event. Rescued shipwreck survivors were

often transferred to the Quarantine station at Portsea, as much for their accommodation, as to be checked for any symptoms of infection (Dickson 1887).

Whenever local fishermen or other mariners were lost during wrecks (Figure 7.17), the community galvanised to raise funds to support the family, and in some cases even bought the widow a house [JM]. There appears to have been an informal network to look after deceased fishermen, pilots or other mariner's families when they were killed at sea. Assistance was often requested for widows either through subscription lists or "some practical manner", and the community sometimes replaced the boats of wrecked fishermen (QS 22/10/1892, 26/11/1892; [AH]). Several charitable trusts were also established for shipwreck survivors (e.g. Nepean Disaster Fund; *Alert Distress Fund*), and concerts were held by the Victorian Engineers (defence forces) to assist (QS 10/12/1892, 23/9/1893).

It was clear that the communities at The Heads held strong sympathetic views for shipwreck victims, and in many cases were active philanthropists. The Queenscliff community was often represented as a heroic and noble populace, to whom shipwrecks were tragic events that befell the poor unfortunates who either owned the vessel or were onboard. However, as will be seen below, shipwrecks also offered an opportunity for income and resources that was often a boon for the town.

IV) Exploitation Responses to Shipping Crises

(a) Claiming Salvage Rights to Vessels at the Time of Wreck

Although a heroic front was presented during times of maritime disasters, shipwrecks also offered a financial windfall for many mariners in the area. Many rescuers often also acted as salvors, and several accounts documented where saviours later claimed salvage rights to wrecks after first removing the last of the survivors. One of the earliest cases of salvage claims resulted from the stranding of the barque *Victory* (on Victory Shoal, Lonsdale Bight), after the steamers *Vesta* and *Aphrasia* aided in towing the vessel off the reef, and two lighters belonging to a local merchant (Capt. Cole) aided in transferring goods that would otherwise have been thrown overboard (MMH 19/8/1850:2). Salvage was defined in the ensuing court case as "that compensation that is to be made to other persons by whose assistances a ship or its loading may be saved from impending peril, or recovered from actual loss" (MMH 16/9/1850:2). Cole became involved in a number of salvage cases at The Heads, where he also raised vessels using divers (MMH 9/3/1852:2, 14/2/1853:4).

Pilots were regularly involved in shipwreck rescues in the early days of the settlement, and often risked their lives to save survivors. However, on many occasions after pilots had rescued wreck victims, they claimed salvage rights on the vessel and/or their contents. In one instance, a pilot recovered enough specie from the *Sacramento* wreck to retire from piloting after only six weeks on the job, while his boatman invested his proceeds to establish the Melbourne Steamship Company (QS 30/7/1910; Draper 1900:10; Noble 1979:21). Similarly, when gold from the *Empress of the Sea* was transferred to the pilot boat after the ship had caught fire, the pilot schooner sailed directly to Williamstown where the gold was held in the Pilots' Office until a compensation claim was settled (Cuzens, 1912:7). Some historical sources even claimed that the pilots had engineered the transferral of the gold from the ship's longboat by delaying taking the towline until the vessel was swept outside The Heads, which thus increased the validity of their salvage claim, whilst the fishermen transferred the passengers ashore (Simpkin n.d.:10). Furthermore, pilots were often involved in rescuing or towing disabled vessels at sea, and frequently claimed salvage rights against them (e.g. *Lillies* – Noble 1979:55). It is of interest that salvage claims were still awarded to pilots as late as 1961 during the salvage of the tug *Walumba* by the *Wyuna* (Noble 1979:76).

Many government officials also advocated salvage rights for services provided to stranded vessels, even though they were operating in their official governmental duties. The Geelong Harbour Master (Capt. Bunbury) and crew of the Government schooner *Apollo*, the Geelong Customs Staff, and the master and crew of the steamer *Aphrasia*, all submitted salvage claims when they assisted in refloating the vessel *Victory* (MMH 16/9/1850:2). These government personnel were often reported attending various strandings and wrecks (e.g. *William Hyde* -GA 24/7/1849:2; *James T. Foord* - GA 3/5/1851:2; DPH 1859:0.). One newspaper went as far as to label Bunbury and his vessel as a “wrecker” (GA 23/5/1851:2), regardless of the fact that everyone except Customs personnel were legally entitled to salvage claims (MMH 16/9/1850:2). Despite the negative outcome to the case, the Customs officials continued their interest in shipwreck salvage, as is demonstrated in 1852, when they chartered the *Aphrasia* to proceed to the *Isabella Watson* wreck, and the former Customs official Mr Friend (by then the Geelong Harbour Master) waited by the wreck “in order to save as much as possible” (GA 24/3/1852).

The economic importance of salvage to local mariners often resulted in cut-throat practices. When the towline accidentally parted to the barque *Craigburn* whilst being towed through The Rip by the tugboat *Rescue* (1891), the pilot in command ordered the tug to return with the line after letting go the anchors. However the tugboat's captain demanded that another £500 was required or a salvage

agreement be entered into, as he claimed that the tow contract had expired when the rope was let go. The *Craigburn*'s Captain resisted attempts to raise the anchors, which led to several unsuccessful attempts by a number of competing tugboats to secure a towline, and resulted in the eventual wreck and drowning of some of the crew (Noble 1979:57).

Fishermen also engaged in legal salvage of cargo from distressed vessels. In 1861, Fisher Smith loaded his boat with chickens escaping the inferno of the wrecked *Empress of the Sea* (Simpkin n.d.:9).

Legitimate salvage continued to offer profitable economic opportunities in this region well into the late twentieth century. This included salvage payments to the *Queenscliffe* lifeboat crew and the Port Phillip Pilots for saving a tug that was assisting with the stranded *Walumba* at Pt Lonsdale in the mid-1960s [PF], and the salvage of tanker *Golden Gate Sun* stranded at Shortland's Bluff in 1984 where the owners of tugboats used to pull her free claimed salvage rights of \$400 000 (Wane 2003:51).

(b) Financial Benefits of Lifeboat Crew Membership

This duality of roles as both saviours and salvers offers starkly contrasting views of the community and its attitudes to wrecks. If we examine the role of the lifeboat crew again in light of financial incentives an additional perspective to the situation arises. There were also other rewards for being in the lifeboat crew beside the benefit funds and prizes offered by the government and other charitable communities. The lifeboat crew was recompensed with a generous stipend for each wreck attended or each time the lifeboat was launched, although the crew did not always consider this payment was adequate (QS 4/7/1891). The crew were also paid about nine pence for attending weekly 5 hours practice sessions in 1893 (Boyd and Roddick 1996:11), and the lifeboat remuneration was an important source of income for fishermen:

They got about £3 when they attended a wreck, which was a lot of money back then (c. 1930s-50s). They used to look after the married men first, who would usually get first go at a place in the boat... They would get about a weeks wage if they attended a wreck. My nephew attended a wreck in the 1970s and got \$15 for it back then...it was easy money... You got a few pound for attending the lifeboat practice, and the fishermen always turned up, especially during winter when it was tight and the fishing wasn't so good...All the men would turn up at the practice for their money. [GW]

Several people within the township also suggested that after being involved in rescue attempts to save a wreck and crew, the saviours often transformed to salvors:

Men were involved on both sides of the wreck. They would save people from the wreck and then be involved in the salvage and/or looting of the same wreck. This included lifeboat people, fishermen, and even pilots. Once the crew and captain were off the wreck there were no witnesses when the looters returned to the wreck in the dark. [nw]

Aside from the obvious noble intentions and demonstrated bravery, a place in the lifeboat also represented a valuable bonus income, particularly if official salvage by the lifeboat crew took place, whereupon substantial dividends were possible. As most of the volunteers were fishermen, it is clear (given the discussions of Chapter Six) that fishers (particularly in the nineteenth century before salvage rights were abolished for lifeboat crew) may have heavily relied on the extra income to support their often large families, which probably explained the reported rushes to be amongst the crew (QS 30/7/1887, 26/4/1919; Kerr 1985:73).

(c) Victualling and Transportation of Shipwreck Survivors and Cargo

Other economic benefits were also reaped by members of the community as a consequence of shipping tragedies, which often presented unexpected financial windfalls for local passenger steamers and victualling merchants. Shipwreck survivors had to be fed, and transported from the scene, and during the gold rush era of the 1850s, an increase in immigration often meant hundreds of people were aboard the wrecked and stranded vessels (see Table 7.4). Additionally, vessels were often chartered in attempts to refloat or tow the vessel, as were lighters to discharge cargo (see Table 7.5). The local vessel *Aphrasia* derived a substantial income from the transportation of shipwrecked and stranded passengers, and towing numerous derelict vessels (*Victory* -MMH, 19/8/1850:2; *Isabella Watson* – GA 24/3/1852:2; *Sacramento* - GA 3/5/1853:2).

Vessel	Date	Passengers	Source
<i>John T. Foord</i>	1851	300	GA 3/5/1851:2
<i>Considine</i>	1852	180	GA 16/9/1852:2
<i>St George</i>	1852	240	Argus 31/12/1852:4
<i>Sacramento</i>	1853	236	GA 3/5/1853:2

Table 7.4: Examples of shipping incidents involving the transferral of immigrant shipwreck survivors.

Vessel	Date	Source
<i>Sophia</i>	1848	GA 7/6/1848:2
<i>William Hyde</i>	1849	GA 24/7/1849
<i>Victory</i>	1850	GA 19/8/1850:2
<i>Cossipore</i>	1852	GA 10/12/1852:4
<i>Sylvia</i>	1855	GA 8/9/1855:2
<i>Barwon</i>	1866	GA 26/6/1866:2
<i>Sussex</i>	1872	GA 20/1/1872:2

Table 7.5: Examples of shipping chartered vessels were used for towing or lighterage.

V) Ancillary Industries

(a) Pilots

The inauguration of a Pilots Service was primarily a mitigative response to shipwrecks around The Heads, and continued shipping mishaps reaffirmed the need for reliable assistance (Argus 23/9/1853:4; MMH 13/8/1852:2, 9/12/1852:4). This situation led to the establishment of the Victorian Pilots Service Board, a major industry that was to further affect the development of Queenscliff through to the present day. Shipwrecks were considered not only a human tragedy for the colony, but also a financial loss that discouraged shipping trade. Official correspondence in 1852 regarding the need for pilots revealed: “every shipwreck was dangerous to the character of the port” (Noble 1979:21). As outlined above, pilots often assisted in early shipwrecks, but were later excluded from any official rescue capacity due to their commitments as an essential service [CSp].

Comparison of the Lifeboat and Pilots Service represents an interesting dichotomy, where the former is a reactive response to shipwrecks primarily to save lives, and the latter is a pre-emptive strategy designed predominantly protect the business interests of shipping company merchants (although protection of life was also a major consideration) through the prevention of shipwrecks.

The Service brought many economic benefits to the town, as early pilots resided locally, and so contributed to its wealth and social strata. Many generations of merchant seamen were employed by the Pilots Service to run their cruising vessels which patrolled the coast outside The Heads (Noble 1979:73-4), while boatbuilders were engaged to manufacture small craft for pilot transferals [JB; JP].

This industry has archaeological imprints that are expressed in a variety of ways, such as piers, slipway and boatbuilding sites, groynes, wrecks, relics at former mooring sites, camps/ shed/office structures and comparatively luxurious housing (compared to other socio-economic classes), but these have not been included in this study due to space limitations.

(b) Loss of Life: Morgues, Undertakers and Cemeteries

Many wrecks incurred great loss of life, and often there were numerous corpses which required burial. These events also presented unexpected economic opportunities for Queenscliff builders and carpenters who also acted as undertakers (e.g. Priddle Builders/Carpenters [CSp]), and ancillary

workers such as hearse operators and gravediggers at the Pt Lonsdale Cemetery. Although these events were predominantly treated with great respect, they were nonetheless valuable business transactions for those concerned. One instance was identified where the coffins of two shipwreck victims were removed from a funeral until a disagreement over the burial arrangements was sorted (QS 5/9/1891). Other burials of shipwreck victims and local dead were reportedly interred in the sand dunes below the Queenscliff lighthouse (Dunn 1949:39). The bodies of several shipwrecked mariners were interred in a former cemetery at Shortland's Bluff, but later corpses were buried at the new Pt Lonsdale graveyard from at least 1864 onwards (Dunn 1949:39; Simpkin n.d.:12).

B) Shipwrecks and Strandings as Places of Opportunity

All the activities outlined above were undertaken in direct relation to the shipwreck as an event. However, after the shipping tragedy had occurred, other behaviour was also recorded that utilised the shipwreck as a place. This transformation of the site from an event to a subsequent place has important implications for how these sites are interpreted. Until now, shipwrecks have predominantly been viewed as the archaeological representation of a maritime disaster event, an approach which has treated the site as an area largely outside the realm of cultural utility. However, this attitude ignores that the wreck was often accessed, exploited and utilised long after the wrecking event, and was not just archaeological in nature, but was imbued with a variety of meanings based on its relative importance to each user group. Therefore although ships have been transformed initially to shipwrecks, which produce their own archaeological signatures, when they are further accessed they also become places within the landscape. As this cycle takes place, the behaviour associated with the wreck slowly changes from altruism to opportunism, as will be demonstrated below.

I) Setting the Scene: Smuggling, Looting, and the Establishment of Customs Services

An examination of shipwreck exploitation would be inadequate without also examining smuggling, as these practices were often inextricably linked. The new found wealth of the 1850s gold rush period attracted many smugglers to The Heads region, and also led to an increase in smuggled goods, which included more luxurious goods such as French champagne and obscene literature, and a huge trade in illicit alcohol. Smugglers of illicitly imported goods were commonly known to bury contraband goods directly in dunes or in barrels to avoid detection, and special customs officers

were assigned to police these offences. The grog trade/ smuggling was rife the Mornington Peninsula, especially given the absence of an adequate police force in the area (NHS 1966; Day 1992:284-5, 293).

In 1852, all customs duties, taxes and charges were abolished on imported goods except on spirits, wine, tea and coffee, tobacco. Wharfage fees were also abolished to encourage foreign (predominantly French) vessels to begin importation of luxury goods to meet the demand of the newly wealthy gold miners and pastoralists. Goods from the wrecks of these vessels presented attractive targets for looting, particularly in frontier communities such as Queenscliff where even basic household goods were often scarce. As the cargo of these foreign shipwrecks had not cleared customs, many of those involved in opportunistic plundering from shipwrecks were regarded in the strictest terms of the law as smugglers (Day 1992:283).

The looting of vessels on the foreshore presented a twofold loss to the fledgling colony. Not only were owners deprived of their cargoes which were badly needed by the settlement, but the government was denied essential income generated through importation and customs duties on the international cargoes. The pillaging led to the establishment of a Customs Service to police not only looting, but also to try to control smuggling of illicit goods into the colony. A token customs force was stationed at Shortland's Bluff in 1853, but given the large expanse of coastline and hundreds of vessels entering The Heads each year, the complement of a junior Customs officer and boat crew proved ineffectual. A request was made in 1854 for an experienced customs officer and two policemen be stationed at Shortland's Bluff (Day 1992:292).

The Customs boat stationed at Queenscliff was making raids in search of smuggled spirits as far as Portarlington, but raised the ire of the local population in 1863 when the raid was carried out on the Sabbath (GA 8/1/1863:2, 9/3/1863:3). By 1867, the Queenscliff Customs Station was removed, despite the continued activity of sly grog merchants (GA 24/6/1867), prompting concern that the former smuggling trade that existed there would be renewed. In past time "uncustomed brandy and Geneva were regularly planted (buried) on the beach...and now that there is a fleet of fishing boats in this sub-port, .the prevention of smuggling will be almost...an impossibility" (GA 18/4/1867:3).

In later periods drug smuggling became popular, and in the 1920s local fisherman discovered a potato sack full of tins of opium (Ferrier 1989:20). Upon arrival at the pier, one of the tins was opened to reveal the contents, and many were souvenired by locals until police were contacted and

called for their return. This trade has continued until comparatively recently when one former resident reported that he had been approached to smuggle ashore goods dumped outside The Heads [name withheld], and as late as 2004, drugs were dumped offshore for collection by smugglers (Howard 2003). The lawlessness described in this section sets the scene for subsequent shipwreck looting which was widespread in the study area. An expanded consideration of the Customs Service in Victoria is contained in Appendix F-3.

II) Opportunistic Salvage (Looting)/Profiteering Directly from Shipping

Mishaps

Many early accounts of shipwrecks at The Heads detailed the prominence of pillaging after survivors had been removed from the wreck. Looting from shipwrecks was a major source of income for many Queenscliff households since the inception of the town, as demonstrated in the following account:

Wrecking at The Heads: We are assured that this offence has become quite habitual, and that Port Phillip Heads have become a den of wreckers, the impunity with which these depredations are committed adding daily to their audacity. A vessel is no sooner in a disabled state than she is surrounded by bands of men who can be no better described as so many pirates – plundering the vessel of all that is valuable and easily removed. Not long since the unfortunate purchasers of the *Sea*, and *Will o' the Wisp*, were robbed by these rascals of all that could easily be taken away; even anchors, chains, copper sheathing, from the bottom, and in these cases the loss will amount to many hundreds. It is stated that a vessel has been stopped by information, at Williamstown, with plunder from the wreck of the *Ontario*, to the amount of many hundreds of pounds; and report says a thousand pounds worth is now buried in the sand at The Heads, awaiting an opportunity of being brought secretly to market. It is unnecessary to say that this ought to be immediately seen after, and put a stop to. (Argus 29/11/1853)

This account was typical for the time, and was repeated in content for many other shipping tragedies. When the vessel *Ant* wrecked at Breamlea in 1866, and it was reported that “The wreckers have made sad havoc with all available materials. It is known, and those who have done the despoiling will be called upon to render an account of their ill doing” (GA 28/6/1866:2).

Customs Officials and Police were regularly stationed on and nearby wrecks (Figure 7.18) to protect the vessels from the hoards of looters (Figure 7.19) attracted to the wrecks (e.g. *Light of the Age* - GA 18/1/1868:3; *Sussex* - GA 4/1/1872):

In all directions - under bushes and beneath some canvas tents that had been erected, suspicious looking prowlers may be seen evidently anxiously awaiting a squall to give

them the opportunity of wrecking. Picnic parties mixed with those who were bent on more earnest work. (GA 4/1/1872)



Figure 7. 18: Customs camp at the wreck site of the *Joseph H. Scammel* in 1891 (Photo in Brownhill 1990: 310).



Figure 7. 19: Wreck of the *George Roper*. Note policeman beating a looter in foreground (Photo: PH2801, QHM Collection).

The *Sussex* wreck attracted many speculators and valuers from the Melbourne iron trade (who were interested in its sale), along with many Queenscliff men who came to see or plunder from the wreck (GA 4/1/1872). The day after the wreck, 1500 people were encamped on the shore nearby (GA 6/1/1872). Many reports appeared of items not only being looted from the shoreline, but visitors' property also being stolen (GA 17/1/1872:2). The cliff at the Barwon Heads were covered with the tents of Police and Customs officers from both Geelong and Queenscliff, along with former crew from the wreck, who had been sent down to watch over the site: "There were a large number of carts in close proximity to the shore, and scores of land sharks waiting for something to turn up" (BS 5/1/1872). Many looters showed scant regard for the authorities, and a bush fire that destroyed the Customs tent probably acted as a decoy to distract officers from pilferage further along the beach (Loney 1989:18).

The incidence of so many wrecks had obvious cognitive effects on an often impoverished fishing community. An editorial account (QS, 24/9/1892) recalled "the early days" when a vessel had gone ashore near Queenscliff close to the old lighthouse quarters and a cargo of hams were piled on the shore with an armed guard to protect them. The locals were driven to despair by the sight of the hams, which were a luxury item, especially in a fishing community that was sustained predominantly on seafood. Locals gathered on the cliff top to feast their eyes alone on the pile of tempting food:

I don't particularly want the blessed hams, only they do put me so much in mind of dear old Yorkshire. I have'na ben able to eat or sup a' the morn, my appetite's a clean awa,

owing to the thinking o' the hams, and the morn's porridge has lost a' its flavour: do ye no ken, at a' what's to be done? (QS 24/9/1892)

A scheme was devised to steal the hams whereby a one culprit distracted the guard with conversation, and secured a hook attached to a string to the hams by stooping to retie his shoelaces, whereupon his accomplices hauled the ham away with the string, and at least a dozen hams were procured in this way (QS 24/9/1892). This wreck was probably the barque *Glaneuse*, wrecked in 1886 with a cargo of luxury imported items including sardines, hams and champagne. This account demonstrates the enticement the wrecked cargoes presented to the local Queenscliff population, and reveals the ancestral origins of some of those who were involved in pilfering (i.e. Yorkshire). It also showed that there was a degree of status to be gained through involvement in this activity, which appears to have been incorporated into local folklore.

Several informants recounted that local townspeople would often visit the scene of a wreck, often with diverse intentions: "Some people wanted to help, and some wanted to help themselves. It was almost an act of God in their favour" [PF]. This observation highlights the underlying mixture of altruism and opportunism. The loot from these endeavours would be sold at the Geelong Market to generate extra income. Reports during the wreck of the *Joseph H. Scammel* detail that the looting during this period was so bad that the road to Geelong had to be closed to keep the salvaged material from leaving the district, as carts were piled high with the proceeds (Loney 1989:42).

Another story often recounted by informants was how a local mariner was towing back a hogshead barrel of whisky from the wreck of the *Sacramento* (1853), and was caught by a local Customs officer, who confiscated the prize. The barrel was raised onto the local jetty, and a guard placed on it overnight. Incensed at losing his prize, the man rowed under the jetty in a small boat later that night, and drilled a hole through the jetty deck and barrel to drain its contents into casks and buckets in the boat before rowing away (Loney 1989b:10). In the morning when five large men came to lift the barrel onto a cart "they nearly launched it into space" [PF].

Plundering of wrecks continued throughout the community right well into the twentieth century. When the steamer *SS Time* grounded on Corsair Rock in 1949, it was alleged that droves of mariners descended on the abandoned vessel. [Note: Because of the recent nature of this event, specific details of the informant and other historic participants have been withheld, although the details have been corroborated by Jurgens (1974:3)]:

When the *Time* went ashore some people helped themselves to it. They were more or less pirates. Some fishermen went aboard and took timber, hides and bags of sugar, which was piled high on the pier until it was taken home. Some of them had to buy their way out of it when they were caught. [Name withheld] dived down below and blew the propeller off. He later bought the rights to the wreck, and it was rumoured that he had been made to buy the wreck to stop being prosecuted after he had been caught taking stuff off it. Just a few boats were involved in wrecking then. [nw]

When the *Time* went ashore, [names withheld] went aboard and pinched everything...doors, rope, paint, the lot. The police recovered [some of] the gear from the fishermen, and the police auctioned all the gear. [CS]

Similar opportunistic salvage was also being undertaken across The Rip on the back beaches at Sorrento and Portsea, where a wreck bell also existed, and men and women responded not only to save life, but to gain liquor, china and household goods (NHS 1966:63).

Despite formal salvage law, it appears that this behaviour reflected the common attitude of the time that shipwrecks and associated debris represented a godsend from the sea, which every citizen had the right to exploit. Shipwrecks were often a boon for struggling fishermen, as they occurred in the winter when the fishing was poor, and the weather was bad:

Some fishermen used to say “please God, send me a wreck”...Shipwrecks were a blessing and a curse. Fishermen were the bottom of the food line. They had to build boats in winter to survive. Fishermen had other part time jobs to survive. The wrecks were a real economic resource, there was extreme poverty in the fishing community from the 1850s-1900s. [PF]

Neither was looting restricted only to the poorer members of the town. Dod (1931:97) recalled the events of when the *George Roper* (1883) wrecked on Lonsdale Reef:

When heavy gale set in, the holds broke open and many whisky barrels and other liquors floated around bay and channels. Soldiers even got in on the act when a barrel floated ashore at the bottom of the bluff, and formed a bucket line up to their barracks to empty its contents until a local pastor reported them to their officer.

Another account also documented Indigenous peoples accessing spoil from wreck sites in the mid-1850s (Simpkin n.d.:5).

However, although Queenscliff and Pt Lonsdale residents demonstrated a great reliance on shipwrecks and strandings for opportunistic salvage, other communities close to the coast but located along Swan Bay did not, even though they did purchase shipwreck items from salvors:

The kitchen of our house was lined with stuff and panels from the *Time*...We had to pay for it from salvagers...it may have been from black market sales. [DB]

It therefore appears that although shipwreck materials were relied upon as part of the material culture of the Swan Bay District residents, these inland communities (who were predominantly farmers) did not place an economic reliance on shipwrecks to the extent that the coastal communities did.

III) Looting Behaviour: Camouflaging or Caching the Evidence

(a) Burying loot in the Sandhills

The establishment of Customs and Police forces in the area led to new types of behaviour associated with looting. In attempts to circumvent discovery, several informants described how local residents would often hide contraband material close by the wreck by collapsing eroding sand dunes over the booty for recovery at a later time [GW; LID; PF]:

Yes, the people here used to pinch a bit of stuff off of shipwrecks. My old man told me about the when the *Sierra Nevada* wrecked...there were dead pigs and bodies everywhere, and barrels of whisky washing ashore. Some soldiers found one of the barrels, and they collapsed sand over the top to hide it. [CS]

Often this technique was successful, and looters would return to the scene days or months afterwards when activity associated with the wreck had died down. Many historical accounts were found to substantiate this practice:

A foray has recently been made to, at and about The Heads by Sergeant Draper and others of the Brighton police, with a view to find what of the property and cargo they could which was wrecked in the *Ontario*. The sergeant succeeded in getting two casks of brandy, one cask of gin, one pipe of wine, two puncheons of oil, twenty three hogsheads of porter, besides large amounts of other property, all of which he has brought to Melbourne, having first dug it out of the beach sand, where there is no doubt property to a very large amount similarly secreted. (Argus 10/12/1853, as cited in Love 2006)

Another account reported that “Thousands of pounds worth [of plunder] is now buried in the sands at The Heads, awaiting an opportunity of being brought secretly to market” (Argus 29/11/1853 as cited in Love 2006). This practice was recorded many times in association with a number of wrecks, including the *George Roper*, *Ontario*, *Light of the Age* and *Joseph H. Scammel* (Argus 29/11/1853, 10/12/1853; Dod 1931:69, 97; Dunn 1949: 40; Loney 1989: 37, 40). There were many caching areas around the district where goods were either buried close to the wreck, or where debris was hidden where it washed ashore at flotsam traps (see below for further discussion). Local residents often towed barrels into the back of Swan Island (Stingaree Bight) and rolled up into hills to “dry out” the barrels, and “it was a poor house in Queenscliff in those days that could not show a few good bottles of whisky” (Dod 1931: 97). The local Customs Inspector reported finding many instances of goods hidden between various wreck sites and Geelong (Anderson and Cahir 2003:30).

The looters were often quite organised; Customs Officers using probes in 1891 uncovered under nine inches of earth 29 boxes of tobacco from the *Joseph Scammel* (outside the study area at Bream Creek) buried in a trench lined with corrugated iron (Brownhill 1990:311). However, more often than not, copious amounts of alcohol from the wreck were first consumed, blurring the memory of the booty site location, which could not be subsequently relocated [GW]. In some cases the proceeds were never found, raising the possibility that new types of secondary archaeological sites associated with shipwrecks still exist in the area:

There was lots of stuff buried in the sand. Someone in the [name withheld] family found a figurehead and hid it in the sand at Pt Nepean, but couldn't find it again. There was lots of stuff from wrecks hidden in the sand at Pt Lonsdale, the Headlands and Bluff, and at Queenscliff Back Beach and Swan Island. [PF]

(b) Overindulgence

Many accounts also detailed scenes of drunkenness at wreck sites, where if looters could not bring the booty home, they attempted to consume as much of it as possible at the location:

The cases of debauchery and wantonness which are going on there amongst the wreckers, who loiter about the place, are past belief and extent, and their bacchanalian orgies would be disgraceful to savages. Surely the government should do something, either by having police station at The Heads or otherwise, to protect property and suppress or prevent scenes like those we have referred to (Argus 10/12/1853, as cited in Love 2006)

These scenes were common occurrences associated with many shipwreck incidents (see Loney 1989b; Anderson and Cahir 2003:23, 154, 165). When the *Sussex* went ashore on 31st December 1871 with a cargo of liquor, extensive local looting was reported (GA 1/2/1872), leading one maritime archaeologist [MS] to comment that it must have been the best New Years Eve they ever had.

This intemperate behaviour also took place at flotsam traps (see discussion below), where the mariners would overindulge in liquor that had been washed ashore out of sight of the authorities:

When the *Light of the Age* and the *Sierra Nevada* wrecked, many casks of wine and rum were washed ashore at Swan Island, Lonsdale Bight, Pt Lonsdale and Mud Islands and for the next fortnight barrels were floating all over the bay. Men would disappear for weeks at a time, drinking until the barrels were finished. [LF]

Nor was this extreme behaviour limited to adults, as Dod (1931:69) recalled the scenes of wanton destruction of property at wrecks sites by children:

Some of my mates finding a crate of bedroom crockery, some distance from the police, amused themselves by tying bedroom jugs and utensils together by the handles and

playing horses with them. Galloping up and down the beach till they were broken to atoms.

(c) Contraband Houses/ Public Places

Loot was also buried closer to home as the opportunity presented. The following instance was recalled by several sources (Loney 1989:43; [PF]): “Once a fellow got some tobacco and buried it in his back yard in kerosene tins to hide it. When he dug it up he found it was unusable, as the kerosene vapours had permeated through it, so he used it to dip his sheep instead”. Loot was often buried to in backyards or under beaches:

One time the customs guys came down to town and all the fishermen hid their stuff from the wreck by burying it. There was lots of cloth and silk, bolts of it, you know for making clothes, and they all took their bits they had down to the beach and buried it...that’s right, they buried it just over there, in behind the Beach St houses in the dunes. But the only guy who got caught was a bloke who took the lining boards off his house and put it in behind there, and when the customs came down they could see bits of the cloth sticking out from behind the boards. [GW]

Several people recalled that there were some houses that were locally known for storing contraband salvaged shipwreck material (Jurgens 1974:3), including *Mythian* (an ex-pilot’s residence), where goods were often hidden in the ceiling rafters or cellar [LID; PF].

This caching behaviour may have led to secondary professions within the community, whereby it was locally known that given individuals could supply certain types of materials (e.g. people wanting wedding dresses may have approached the holder of the silk roll outlined above), and these may have led to informal trade networks which further strengthened relationships within and around the town. This observation was further supported the reliance of some Swan Bay residents on a black-market trade in shipwreck material.

Public places were also allegedly used to conceal contraband, possibly because direct blame could not be associated with any one person, or because the officials were also involved. Kerr (1985: 73) reported that alcohol from the *Sierra Nevada* was hidden at Pt Nepean and behind the Queenscliff Railway Station to avoid detection by Customs, and that many bottles had been rediscovered in these locations for many years afterwards. Rumours also abounded in the town of a relatively recent occurrence when timber from a wreck at Pt Lonsdale washed ashore at Queenscliff, and was hidden under government buildings to conceal it from an aerial search by a helicopter [nw]. This incident was probably the subject for an episode of a popular local television series (*Seachange*) that was based in this area.

(d) Deliberate Fires

Several residents [nw] suggested that unexplained fires had occurred during shipwreck looting on a number of occasions during the twentieth century, to conceal evidence of theft, to ensure the wreck (which was a rich source of income) could not be removed, and also to distract Customs staff onshore (see above). It therefore appears that fire was an important tool of concealment and procurement during looting activities, which might have implications for the discovery of burnt material on or near shipwrecks that might normally be attributed to an accident at the time of wrecking.

IV) Flotsam Wreckage Traps/ Beachcombing

Many shipwrecks were quickly pounded to pieces in the large ocean swells of Bass Strait, and floating items of their superstructure and cargoes were often spread by the seas. Flotsam from many wrecks along the ocean beaches was spread for miles along the coast (*Light of the Age* - GA 20/1/1868:3; *Sussex* - BS 5/1/1872), and debris from those near to The Heads was often scattered on the beaches throughout the Bay, or caught in the tidal currents in the channels (e.g. *Marmion* -GA 30/5/1853:2; *Ontario* – [PF]; *George Roper*). The confluence and regularity of so many wrecks near The Heads exposed many local vessels, especially fishing boats to hazards from wrecked vessel debris, and in 1912, fishermen were forced to use the southern channel extremity to avoid the debris (QS 5/10/1912).

The Pt Lonsdale back beach (extending to Barwon Heads) and Lonsdale Bight at became known as a wreckage and flotsam trap, and various newspaper accounts reported that the area was strewn with timber and materials after shipping disasters at The Heads (e.g. *Sacramento* – GA 2/5/1853:2; PPH 4/5/1853). Wreckage was also known to have washed ashore at Shortland's Bluff near the Pilots' station (MMH 20/4/1850; Figure 7.20), Pt Nepean Beach (GA 16/6/1848), Queenscliff Bight (Figure 7.21), Swan Spit, Swan Island, and at the Mud Islands [LF]. The sheer volume of flotsam enabled one Pt Lonsdale resident to build his own cottage entirely from shipwreck timbers where the beach was described as "a great timber yard" (Simpkin n.d.:4). Knowledge of these coastal dynamics was used to advantage by official salvors, who often threw buoyant items overboard (e.g. masts, yards - lagan) as they knew where it would float ashore for later collection (GA 15/1/1872), and also regularly exploited these flotsam traps as an economic by-product of shipwrecks elsewhere (QS 10/12/1892).

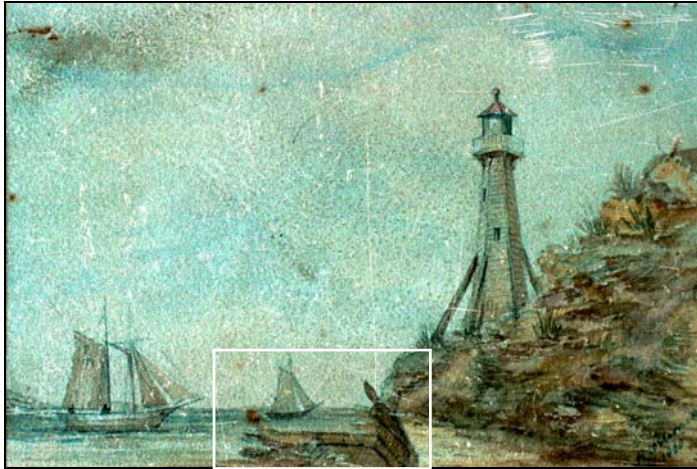


Figure 7. 20: Wreckage below Shortland's Bluff timber lighthouse tower 1860 (Watercolour by R. Cossamore, Photo WD55, QHM Collection).

The flotsam deposition processes associated with these locations was cyclic, and local people would collect wreckage and debris brought in by successive tides [JB]. Residents developed a traditional knowledge of the locations and conditions under which wreckage would be available at these types of sites [LF], and they would anticipate the availability of flotsam both at the immediate wreck site and elsewhere based on the prevailing weather conditions.

You often see the photos of people in their Sunday best who'd come down to look at the wreck. The people in the wreck could be looters looking at the conditions surrounding the wreck, the environment, and assessing when the ship is likely to break up and wash ashore...things like what is the swell size, wave conditions and cloud formations., so they could work out when and where the stuff would come ashore...they would wonder, what was the wreck made of, how soon will it break up...In 1928, a wreck, I think it was the *Wyrallah*, wrecked with a cargo of axe handles and broom handles. The fishermen knew where the cargo would wash ashore, and collected it all. [PF]

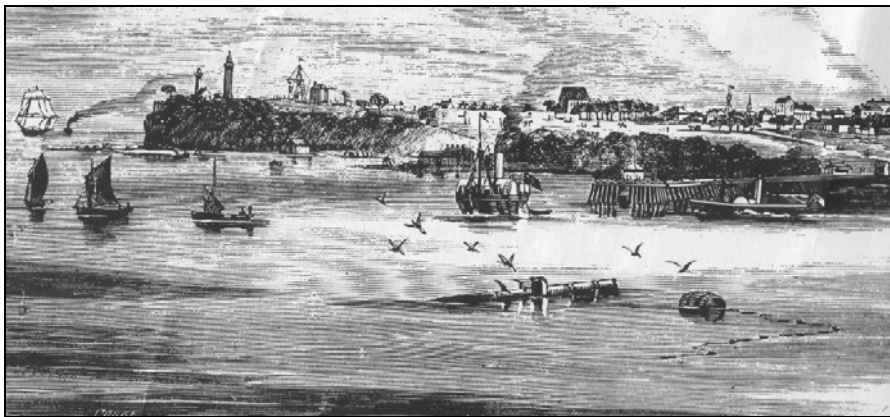


Figure 7. 21: Floating wreckage (possibly the *Lady Harvey*) marked by a barrel buoy in Queenscliff Bight, c. 1863 (Picture: "New Lighthouse at Queenscliff", Cooke, IMP 10/1/1863, SLV Collection).

Flotsam traps also provided concentrations of other materials that were washed overboard from passing shipping. Beachcombing for these resources was always a popular pastime in the community:

We collected dunnage off the beach. You used to get planks 15ft long and an inch wide. Johnny Geats lived on Swan Island, and he built a shack from dunnage and lived in it. We used to find this beautiful timber on the beach. We would tie a rope to it and we dragged it back along the beach to where you came down, and then would get someone to help lug it back to your house. Old Miss Siddle...had seats in her garden made out of driftwood. Some of that was proper timber that would have been sold, and came from the timber boats from Tasmania. They would sometimes lose some of it, it got washed off, and you were lucky if you got that...The timber was very important, as dressed timber was quite expensive then. [JP]

Anything that washed up on the beach was considered fair game. When a small coastal sailing ship went aground during a storm at Swan Island in the early 1900s, sheep that scrambled ashore were quickly corralled in the centre of the Island and used for meat for several months. Residents of the island clearly relied on the exploitation of flotsam material for everyday resources:

One night during a storm a cargo ship [probably the *Wyrallah*] was cut in half during a collision with another ship in The Rip, and cases of chocolates were washed up on our island. The contents were quite alright as each case was wrapped in zinc, so you can see it was like Christmas for us...We would often find bunches bananas/coconuts washed overboard from ships, timber planks and square kerosene tins...which were always taken home and all our outside sheds were made from them. (Thompson n.d.)

V) Organised and Official Salvage

Official salving wrecks was clearly an important component of the Queenscliff landscape for many years (Figure 7.22). Even before the time of the initial establishment of the township, many community members profited from the salvage of shipwrecks at The Heads. From as early as 1844, when a Mr Raleigh purchased the wreck of the *Thetis*, opportunistic merchants speculated on direct salvage attempts (MMH 6/3/1849:4). In the 1850s, an itinerant professional wrecker (William Bailey, nick-named Wandering Willy), made a floating home from shipwreck materials whilst salvaging the *Lady Harvey*:

Wandering Willy was a Scotsman who led a nomadic existence...around the earliest occupation of Queenscliff. Willy occasionally was involved in fishing, but his main occupation was shipping salvage. He would often shift his tent, boats and gear to remote locations around the coast from towards Barwon Heads, the Mud Islands or Point Nepean, where he would stop for months at a time. Just when locals believed he had drowned, he would show up with a large quantity of wreckage for his main raft. His raft was moored to the north of the old jetty with chains and anchors, and took two years to build. The raft was made from the mast and spars of the *Lady Harvey* shipwreck as super structure, with planks and beams lashed and betted together. His cargo was laid on top of

this makeshift platform, and consisted of anchors, chains, winches, assorted bolts, rigging, and cabin fittings. At this time, Barwon Heads to Queenscliff and from Cape Schank to Pt Nepean was strewn with wreckage, but people were too absorbed with the gold rush to salvage this material. His craft was completed at the end of 1855, and fitted with a square sail and side lights. The *Lady Harvey's* Galley was fitted up as the Captains Cabin, with a nail keg as a store. A bell was fitted in case of fog, and a keg of unbonded rum secured for the voyage. The voyage to Williamstown took three weeks, and as the raft was thought to be a derelict, many seamen raced to claim the prize, only to be disappointed to discover Willey at the tiller. The raft was broken up and sold in lots at auction, and the Galley was brought ashore to be used as an office. It was reported that Willy was also involved in the salvage of the *Cataraqui* at King Island in 1844. (Fanning 1892c)

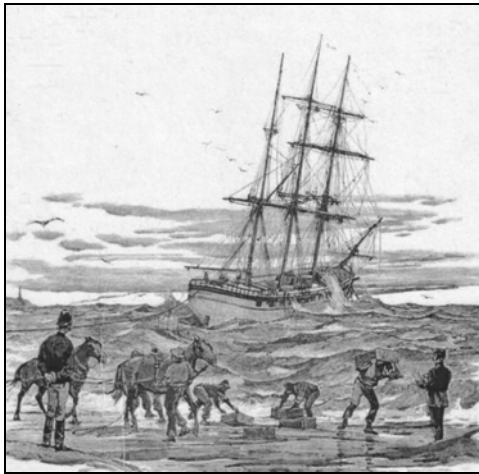


Figure 7. 22: Official salvagers at work on the *Glaneuse* shipwreck. Note the police guarding the operations (Sleap, IAN 16/10/1886, SLV Collection).



Figure 7. 23: Salvors at work on the *Sussex*. Note the use of tramway to the wreck (Image in Loney 1989b:18).

The salvaging of shipwrecks proved to be a lucrative business for many entrepreneurs at Queenscliff, including a Mr Miller who was involved in the salvage of at least four shipwrecks during the 1870s-80s (*Sussex*, *Gange*, *George Roper*, and *Gambier*), and successfully worked at least one of the wrecks for many years (GA 20/1/1872; QS 13/8/1887, 26/11/1892). Wrecks were a profitable venture for salvors, who often paid substantial sums to purchase them for later salvage (QS 29/3/1890). In at least one case (*Sussex*), shares were offered to salvage the wreck, which proved very profitable as it was salvaged before it was destroyed by the elements (see Figure 7.23; GA 1/2/1872).

Organised salving continued to be profitable well into the twentieth century. One syndicate bought the rights to several wrecks in the area, including the steamships *Orungal*, *Australia* and *Time* (see Figure 7.24), which proved lucrative enough to purchase a new boat [PF].

When the *Time* went ashore...a mob bought the salvage rights to the wreck...you would see them taking off walnut and silky oak timber, and there was a craft loading sugar from it. They even had a guard on board, to stop people pinching their stuff. The pier was loaded with timber and sugar. They used the crayfish boats to ferry all the gear ashore. They would hook up the [sugar] bags off the bottom of the hold using grapples. [CS]

As alluded to previously, organised salvage presented many other economic opportunities for the community as well as the salvors. Queenscliff fishermen were often hired to assist with salvage operations (Simpkin n.d.:9; Dod 1931:97): “Barges would come down from Melbourne to salvage stuff on the rocks, and they would employ locals to salvage wrecks, fishermen” [JB]. The salvage of shipwreck material often provided cheap economic benefits to the local and regional communities, when mercantile produce was sold at a very competitive rate. Many sales of shipwreck materials appeared in local newspapers, which included kerosene, cases of seafood and axe handles from the *Joseph H. Scammell* (QS 4/7/1891). Many locals recalled using household goods from wrecks:

My family had a big bag of sugar from the wreck of the *Time*, and I can clearly remember using the sugar; which was very hard and raw, from this bag on my cornflakes as a kid for many years. [LID]

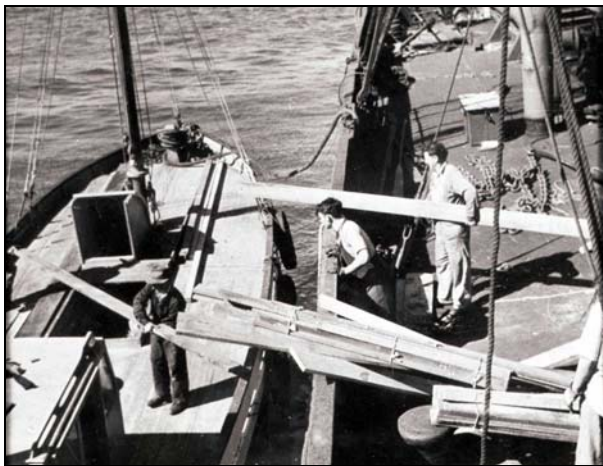


Figure 7. 24: Salving timber from the *Time* shipwreck (Photo: PH3442, QHM Collection).

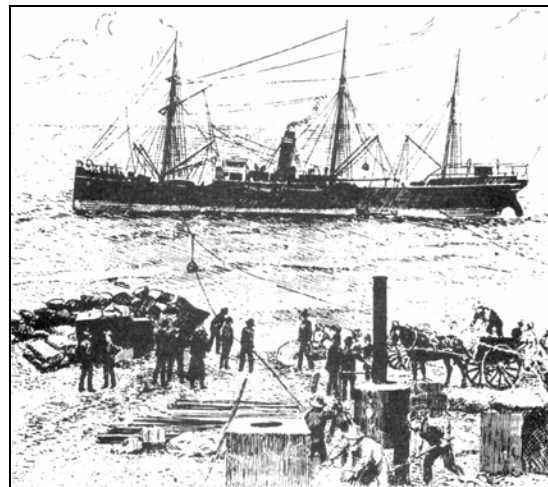


Figure 7. 25: Salvors unloading the *SS Bancoora*. Note corrugated road leading into the water, ships tank and donkey engine (Egersdorfer, IAN 1/8/1891, SLV Collection)

Salving led to the development of its own individual types of material culture used to transport merchandise from the wreck. Salvors of the *Sussex* used an iron tank as an airtight raft for transporting cargo ashore, established an iron tramway over the sand dunes to the wreck, and also used a wooden sled pulled by 12 bullocks to transport heavy objects. A flying fox made from a

ships mast embedded in the sandhills, along with a ships winch, donkey engine and corrugated road were used at the site of the *Bancoora* stranding (Breamlea) to transport cargo ashore (see Figure 7.25; Brownhill 1990:311; Loney 1989b: 45). Explosives were extensively used to break apart the *Hurricane* (QS 22/2/1908) and *Gambier* shipwreck, and some 300-400 tons of material were subsequently recovered by divers from the latter (QS 26/11/1892). Grappling hooks were used to hoist cargo out of the hold of the *SS Time* [BM].

VI) Jetsam Traps and Beachcombing

Long after the occurrence of shipwrecks or strandings, jetsam was often washed ashore in areas close to the previous mishap site. Jetsam traps were important components of the Queenscliff economy, and of particular note were coal deposits that were regularly washed ashore in Lonsdale Bight. Since the early days of the settlement coal from strandings on the foreshore has been extensively accessed by the community in Lonsdale Bight, which provided a much needed economic resource for the area [CSp; DS; GW; HM; JP; PF; WN]. When the *SS Barwon* stranded in Lonsdale Bight in 1866 part of her coal cargo was sold locally as a cheap alternate fuel source (GA 28/6/1866:2). The Ferrier fishermen were a large family, and relied heavily on any supplementation of their income (which was a common situation amongst that social group), and fisher women often collected coal for their fires from the Shortland's Bluff Back beach after large storms:

My grandmother would wear several petticoats down to the beach and would walk along at low tide mark collecting coal. She would pull up one petticoat hem and fill it with coal that had washed ashore, and when that was full, she would pull up another and use them as a basket until they were all full. All the kids would nick off if she asked us to go for a walk with her, as we knew we would have to carry coal. Needless to say she preferred the small pieces...You can still find lots of coal at Shortland's Bluff and at the *Milora* stranding site after a strong easterly gale, which with its short swell brought it up on the beach. There is also lots of coal from the *Time* shipwreck in that area. [PF]

This was a common practice amongst other fishing families, and was considered “a godsend to the local people” as it was a regular and reliable resource [DS]. Nor was this practice restricted to fishing families or poorer community members. Pilots also heavily exploited this resource [CSp], as did affluent visitors to the town:

They were wealthy people...Old Mrs Hart would come over to the beach... She had a carpet bag, and she had a proper fur coat and she would go along the beach in bare feet with her carpet bag collecting coal. Her whole idea was to be away from Melbourne and she enjoyed it. [JP]

Although the coal was regarded as communal property accessible to all and sundry like most other items exploited from the sea, there also appears to have been an informal etiquette that applied in regards to obviously collected coal:

We used to walk along the beach and collect the coal as we went along and make small piles as you went or put it in old fertiliser bags. You would drag the bag back along the beach to the track where you went up to home, and then you would get someone to help lug it back to your house. No one would steal your coal if you left it on the beach. It was just something that wasn't done if you knew someone else had collected it. [JP]

The coal's regular availability after storms [CSp] led to the development of special implements to harvest this resource in the littoral zone:

A ship came ashore in 1934 in Lonsdale Bight, and had to dump its cargo of coal to get off. That coal kept many a house warm for years in Queenscliff. People went down to the beach and used rakes meshed into baskets to scope it out of the water [Figures 7.26 & 7.27]. They stored it in tanks in their backyards. It was a blessing in the depression - it kept everyone warm. [GW]

The development of this new material culture is an important characterisation of the use of this resource. This behaviour also reflects the presence of other industries in the area. In the early to mid-twentieth century, Queenscliff suffered a chronic shortage of timber fuel as the demand for firewood and bark trade that supplied the Melbourne biscuit factories and tanneries had stripped most of the wood stocks on the Bellarine Peninsula [JP]. Although a gas plant was installed in the area in 1884 (QS 21/1/1884), gas reticulation was only available to the lower end of town, and hence the local community were compelled to access this resource as it was not only readily available, but also substantially cheaper than ordering firewood from further afield: "It was free fuel. It was a highly commercial thing; you saved money on gas and firewood" [JP].



Figure 7. 26: Coal harvesting using coal rakes in Lonsdale Bight (John Patrick Collection, from QHM Collection).



Figure 7. 27: Harvesting jettisoned coal using coal rakes in Lonsdale Bight (John Patrick Collection, from QHM Collection).

C) Shipwrecks as Other Types of Places

With the passage of time, the importance of shipwrecks and their cargoes as potential physical exploitable resources diminished, and their utility was often identified with a whole suite of other functions, which extended beyond their association of the place with the actual wrecking event.

I) Shipwrecks as Tourist Attractions

With up to 2000 sightseers inundating the town on any one day in summer, shipwrecks played an important tourism role with local newspapers actively promoting the exposed hulks as attractions (QS 22/2/1908). Many early photographs show locals or tourists in their Sunday best on the rocks at Pt Lonsdale posing in front of shipwrecks, which were produced as tourist postcards (see Figures 7.28 & 7.29).

Indeed shipwreck sites were often subsequently treated with a carnival atmosphere which was a stark contrast to the solemnity of the initial emergency. When the *Sussex* wrecked near Barwon Heads in 1872, many picnickers visited the scene, and a crayfisherman nearby was kept busy by ferrying visitors across the river (GA 4/1/1872). The road to The Heads was besieged with vehicles of every description, including many dignitaries such as Geelong Councillors and politicians (BS 5/1/1872). Local newspapers described the festival mood associated with the wreck:

Scores of people made use of the half holiday and went out to see how the wreck of the *Sussex* was getting on. Cries of “to the wreck, now for the wreck” were heard throughout Geelong, as the touts secured passengers for their vehicles. Visitors (men, women and children) were scattered in every direction looking for mementoes of the wreck, but finding few. Entrepreneurs also established tents for the accommodation and refreshment of visitors. (GA 15/1/1872)

Similar events were described at Pt Lonsdale in 1890:

It’s an ill wind that blows nobody any good. The marine accident to the *Holyhead* has made business a bit lively on the Cliff during the past few days, especially vehicular traffic. There has been a constant stream of buses and traps of all descriptions, loaded with passengers, visiting the scene of the wreck, and notwithstanding the inclemency of the weather there was a large crowd of spectators an hour after the event happened. (QS 15/2/1890)



Figure 7. 28: *George Roper* ashore at Lonsdale Reef (Marine History Postcards, Photograph: Roy Holden)

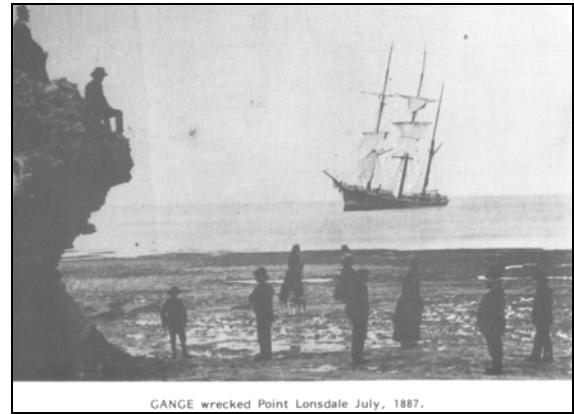


Figure 7. 29: *Gange* wrecked at Lonsdale Reef (Marine History Postcards, Photo: Jack Loney Collection)

The seasonal nature of the local tourist industry meant that most tourists frequented the area in the summer period. As shipwrecks usually occurred in winter, they represented a welcome added draw card for tourists, who would often visit the wrecks to collect their own souvenirs. [CA; PF]

Many wrecks were drew crowds to the area in their own right. [WN] recalled an entry in her mother's 1941 diary: "Someone said there was a wreck [*SS Orungal*] and everyone piled into the car to have a look the next day".

Other activities associated with shipwrecks were also fashionable, such as the regular rocket practice by lifeboat crew [GW], or the displays of lifesaving procedures during Military Tattoos during the late 1890s (QS 5/1/1897). The popularity of these events demonstrated the curiosity and aura fundamentally associated with shipping mishaps. Shipwrecks continue to be a valuable economic resource for the region, both through heritage trails and a wreck focused diving industry that encourages thousands of annual visitors. Local museums, hotels and historical authors (e.g. Jack Loney) draw heavily on past shipping tragedies which are actively promoted as points of interest for visitors.

Periodic opportunistic use of recently wrecked vessels still takes place, although with more harmless intentions. [JBd] recalled that when the vessel *Golden Gate Sun* went ashore beneath the low lighthouse at Shortland's Bluff in the late 1980s, framed pictures of the vessel were available that same afternoon. Gibbs (2005) has observed similar behaviour associated with modern day wrecks in Queensland, and the author has witnessed the continuing innate curiosity of visitors towards many shipwrecks in many coastal localities around Australia and the world.

II) Shipwrecks as Picnic and Recreational Playgrounds

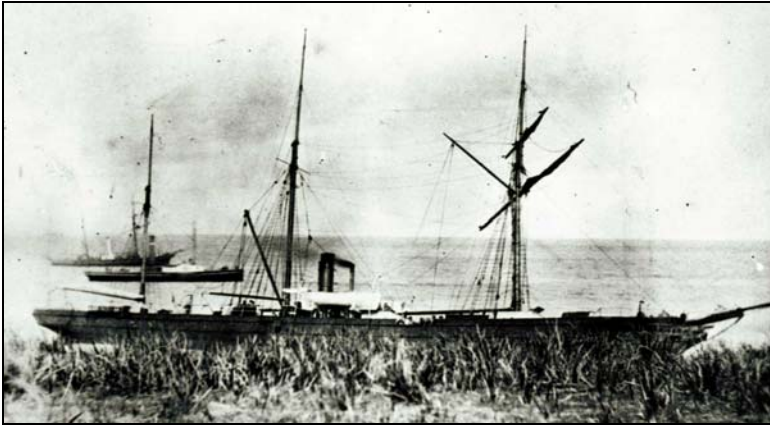


Figure 7. 30: *SS Barwon* aground at Lonsdale Bight in 1866 (Photo PH41, QHM Collection).

After the initial disaster event, shipwrecks usually became integrated into the community as a new place. Wrecks became the focus for sightseeing on Sunday picnics, where the whole family would visit the wreck site, which was often visible above the water. Wrecks, stranded vessels and old hulks often provided a playground for local children. As early as 1867, stranded vessels in Lonsdale Bight proved to be popular recreational facilities for local boys, especially the *SS Barwon* (which was ashore for more than a year - Dod 1931:66; Dunn 1949:40; Figure 7.30). Re-cycled hulks used as breakwaters were also popular recreational haunts. [HM] recalled playing submarines inside the hulk of the *HMVS Lonsdale* before it sank into the sand, and many informants [LM; RB] played or fished on the *J3 Submarine* at Swan Island until access was restricted by the military. Similar behaviour was also observed at Lorne, where wrecks were also used as diving platforms (Hunt 1999:23). Some shipwrecks eventually became social meeting venues. “People would say lets meet at the *Rosebud* [to loot it]. That’s how the town got its name” (Rogers 1960:50). Other places such as submerged rocks toponymically recorded their associations with wrecked or stranded ships (Lightning Rock, Victory Shoal [pt Lonsdale], Corsair Rock, Petriana Reef, Cheviot Beach, Sierra Nevada Rocks [Pt Nepean]).

III) Modern Looting of Wreck Sites

It is interesting to note that even in modern times, shipwrecks continue to provide an attraction as a source of booty and possible illicit income. Since the inception of the diving industry in Victoria in the 1960s, shipwrecks became a focus for divers interested in collecting bottles and plates/ relics (e.g. Nayler n.d.) or purely for the visual experience. Many wrecks in the area have been heavily

looted, and the classic example being the *William Salthouse*, which when discovered in 1982 (Elliget and Breidahl 1991:3), was almost destroyed in what was described by Heritage Victoria staff as a looting frenzy. These observations demonstrate the continuity of wreck exploitation in this region, that this is an ongoing process that did not stop within the community, and that it was only the means of exploitation that have changed (i.e. scuba diving). However, this aspect was deliberately not a focus area for this study, due to the potential legal ramifications associated with wreck pilfering and any perceived linkage of the author to these activities.

IV) Shipwrecks as Marine Navigational Markers and Fishing Resources

Many wreck sites have become integral components of the fishing community's landscapes, and have been used by fishermen as seamarks, especially where structural components are visible above water. The boilers from the wreck *Campbell* are often still used to delineate a narrow channel used by fishing boats to avoid the full force of The Rip:

They would use the boat channel when the wind was blowing from the north west, and the tide was running inwards. They would use the channel between the *Campbell* shipwreck and Corsair Rock, when going out on an ebb tide. [HM]

These directions were later enshrined in official sailing directions, as were the *Australia*, *Orungal*, *Time*, *Wauchope* and several other wrecks that were used as sea marks for navigational purposes (PHB 1959:189,191).

Wreck sites often provided new environments that encouraged the aggregation of fish life, particularly snapper, as their newly created topography resembled the rough ground favoured by this species. The *Hurricane* shipwreck was a favourite location for Queencliff and Rosebud fishermen, as it acted as a haven for snapper, but unfortunately, divers also expressed interest in the contents of the wreck and in 1908 explosives were used to salvage its remains (QS 22/2/1908). Similarly, the *Eliza Ramsden* was known as a good location to catch yellowtail [PF]. The proliferation of fish on wreck sites has also been repeatedly observed by the author on numerous occasions nationally. These fish concentrations have been known on many occasions to attract seals to the area, which have subsequently been used by fishermen to identify the locations of wreck sites, and hence the fish schools [GrH; PT].

V) Adaptive Re-use of Hulks/Wrecks

Shipwrecks and abandoned hulks played a significant role as erosion control devices. In 1914, fishermen's houses north of the Fishermen's Pier were threatened with inundation from high tides

and storm surges (especially during easterly winds), despite recently installed dyking, raised paths and repairs to the sandstone seawall (QS 14/2/1914, 18/7/1914; [PF]). Despite all efforts, the back yard fences of the houses were often flooded or washed away at regular intervals (eg. QS 8/4/1916, 18/7/1914; [HM; GW]). Eventually, a former obsolete Victorian Naval Torpedo Boat, *HMVS Lonsdale* (Figure 7.31), was placed behind the house as breakwater around 1914, which appeared to solve the problem [MW]. The hulk was also utilised as a change room and informal toilet by local residents using the beach in this area [GW]. Today the vessel remains still lie under the grounds of the QMM. The hulks of the torpedo boat *Countess of Hopetoun* and another unidentified vessel were used for erosion control Swan Island to protect the beacon and/or the fort (Ferrier 1991:5; [LID]). At Swan Spit Point, the *J3 submarine* was moored for the dual purpose of erosion control and as a power supply (using its generators) for the naval depot (Anderson 1984; Thompson n.d.:2).



Figure 7. 31: The hulk of the *HMVS Lonsdale* on the Queenscliff Bight foreshore (QMM Collection).

VI) Shipwrecks Used for Advertising Campaigns

Shipwrecks were obviously a pervasive element of township life. This fact was exploited to sell a medicinal product, which drew analogies between the suffering of shipwreck victims and curable diseases:

A shipwreck is a frightful experience. To hear the wind whistle, the timber creak and crash the cordage strain, the sailors swear and the women scream, tremble and run hither and thither like maniacs is enough to appeal to the bravest heart. Yet with all its terrors, death by shipwreck is not half so terrible as the slow and insidious course of disease for which the latter years of the stricken ones life makes existence a misery, not only to the victim, but to all of those around him. With such terrible facts staring me in the face, how careful we should be to preserve that Providence, health and strength...have suffered severely from indigestion, and like a drowning man clutching at straw have tried every remedy, but without relief...[until] benefited greatly by Clements Tonic. (QS 25/3/1893)

The piece obviously drew on the familiar experience of the Queenscliff community to sell their product, and demonstrates the extent to which shipwreck incidents were an integral part of the community's everyday life and identity.

4) The Archaeology of Shipping Mishap Landscapes

A) Shipwreck Management Landscapes

Shipwrecks as archaeological sites have already been exhaustively investigated by Heritage Victoria, and that aspect will not be further addressed here. However, aside from the obvious structural evidence underwater, several key features of associated with shipwrecks were located within the community.

I) Archaeological Signatures of Stranding Sites

Several informal and historical sources demonstrated that major underwater archaeological deposits were probably associated with stranding sites in the Bay. Artefacts probably from the stranded vessels *Antoinette Cezard*, *Dumfries*, *St George* and/or *Marie* on Swan Spit had already been documented by local researchers/divers (Love 2006, n.d.; [DL; PF]). Several stranding sites were identified and/or inspected during the course of fieldwork to assess the extent and nature of the archaeological deposits reported by informants. Substantial deposits of French luxury goods (Figure 7.32; Table 7.6) discovered at Swan Spit demonstrated not only historical international trade links, but also indications of changing social hierarchy and status within the fledgling community, which might not otherwise be evident if actual strandings had not occurred in the area. Although bottle collectors had removed most of the deposits from this area, inspections still revealed traces of early patterned ceramics that became more concentrated closer to the sites. All of the potential stranding sites revealed varying deposits of archaeological remnants, (some of them substantial) which are exemplified in Table 7.7.

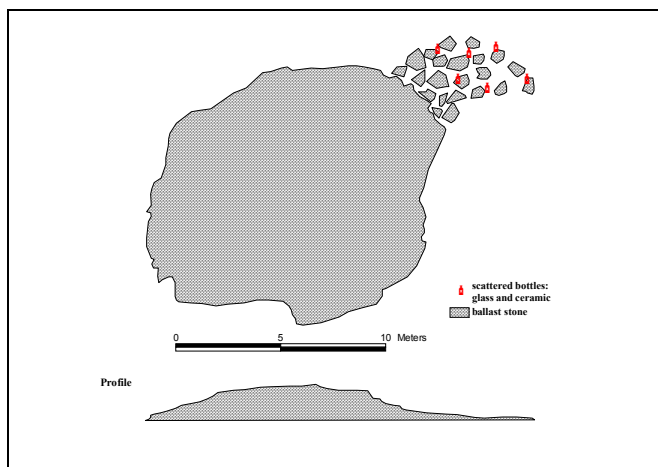


Figure 7.32: Survey of Hobson's Bay ballast mound.



Figure 7.33: French perfume bottle recovered from Swan Spit. Scale = 15cm (Peter Ferrier Collection).

Type	Embossed Marking
Champagne Bottle	<i>E & H Rey, Cognac, 1811, Champagne, Bordeaux</i>
Fish Paste Jar	<i>Lovit Frere's and Co, Bordeaux</i>
Perfume Jar	<i>Edduard Pinaud, Paris, Londres & Bruxelles</i>
Pickle Jar	<i>Vase Brevetes Sanscarante Du Gouvernmenta F. Nantes</i>
Vinegar Bottle	<i>Vinaigre Aromatique, De Jean.....Buily</i>

Table 7.6: A sample of French luxury items recovered from the Swan Spit stranding ground, P. Ferrier Collection.

Coal accumulations from stranded vessels in Lonsdale Bight formed the largest deposits, which were not only evident in a number of underwater locations, but were often washed ashore where they were collected by the community, as has been previously addressed above. Coal was also sometimes found in crayfish pots recovered from Lonsdale Bight [HM], as was an intense scatter along the West Channel, which may represent another stranding site or could be from the wreck of the *Faugh a Ballaugh*. Substantial brick deposits were discovered from the *Trusty* stranding site in Nepean Bay near the ammunition pier (see site plan in Appendix C-6: Figure 82). Several anchors were found in shallow water near Popes Eye Shoal and Swan Spit, which could either have eventuated from strandings, near mishaps or cut lines (deliberate or accidentally parted). Several rudders were located in the West Channel and on Swan Spit, along with a lead keel and ballast mound on the latter (Figure 7.34).

Location	Stranded Vessel	Archaeological Remains	Date	Source
Lonsdale Bight	<i>Victory</i>	Slate blocks/cut stone/ballast mound - mound approx 10 x 8 x 3 m high, with 2.5 ft long x 18 inches square cut blocks (possibly slate) and cut pitches (curbing stone).	1850	[PT]
	<i>SS Barwon/ SS Wodonga</i>	Coal/ structural timbers wedged in reef	1866/ 1882	Authors Inspection
	<i>SS Milora</i>	Coal - large deposits of coal both underwater and washed up on beach	1934	multiple oral histories
	Bell Reef, Shortland's Bluff Unidentified – <i>Endeavour?</i>	Coal/Ceramics/Bottles/Brass Fittings		[PF]
Nepean Bay (alongside former Defence Pier)	<i>Trusty</i>	Bricks (substantial deposits) stamped “Hoffman” – destined for building of Fort Nepean buildings	1883	[DL;PF], Authors Inspection
Pt Nepean	Unknown	Dozens of Anchors near Corsair Rock		[MS]
Swan Spit	<i>Dumfries/ Marie/ St George/ Antoinette Cezard</i>	French Luxury Goods (see Table 7.6); perfume, fish paste, vinegar, pickles, schnapps, champagne bottles, onion bottles), ceramics (Chinese style urns), rudder	1840/ 1853/ 1852/ 1856	[DL; PF] Authors Inspection
	Anchors, ballast mound, lead keel		?	[DL; PF]
West Channel	unknown	Several rudders, coal scatter, bluestone blocks and chip clusters	?	[DL; PF], Authors Inspection
Symonds Channel	Possibly <i>Gem</i> , <i>James T. Foord</i>	Ceramics/Bottles/Unspecified	1851/ 1864	[CP; PF]
Hobson's Bay, Melbourne	Hobson's Bay Ballast Mound	12.5 x 13 wide x 1.5 m high. 19th century bottles (salad oil, wine, beer, whisky). Mound tapers to a slightly fan shaped wedge on one side, suggesting the vessel may have swung around with the wind during the unloading operation. Stones cut to a roughly standard size between approx 30 and 60 cm long		[PT]; Authors Inspection; Duncan, 2003a:253
	St Kilda Ballast Mound #1	Large ballast mound of local bluestone rock		[PT]; Duncan, 2003a:419
	St Kilda Ballast Mound #2	Two parallel ballast mounds 6-7 m apart, approx 26 m long x 3-4 m wide and stand about 1.5 -2 m high. (It appears that the stranded vessel discharged ballast from either side of vessel to create ballast mounds. Three modern lead yacht keels from later collisions with mound		[MV]; Duncan, 2003a:419

Table 7.7: Archaeological remains of stranding sites identified in Port Phillip.

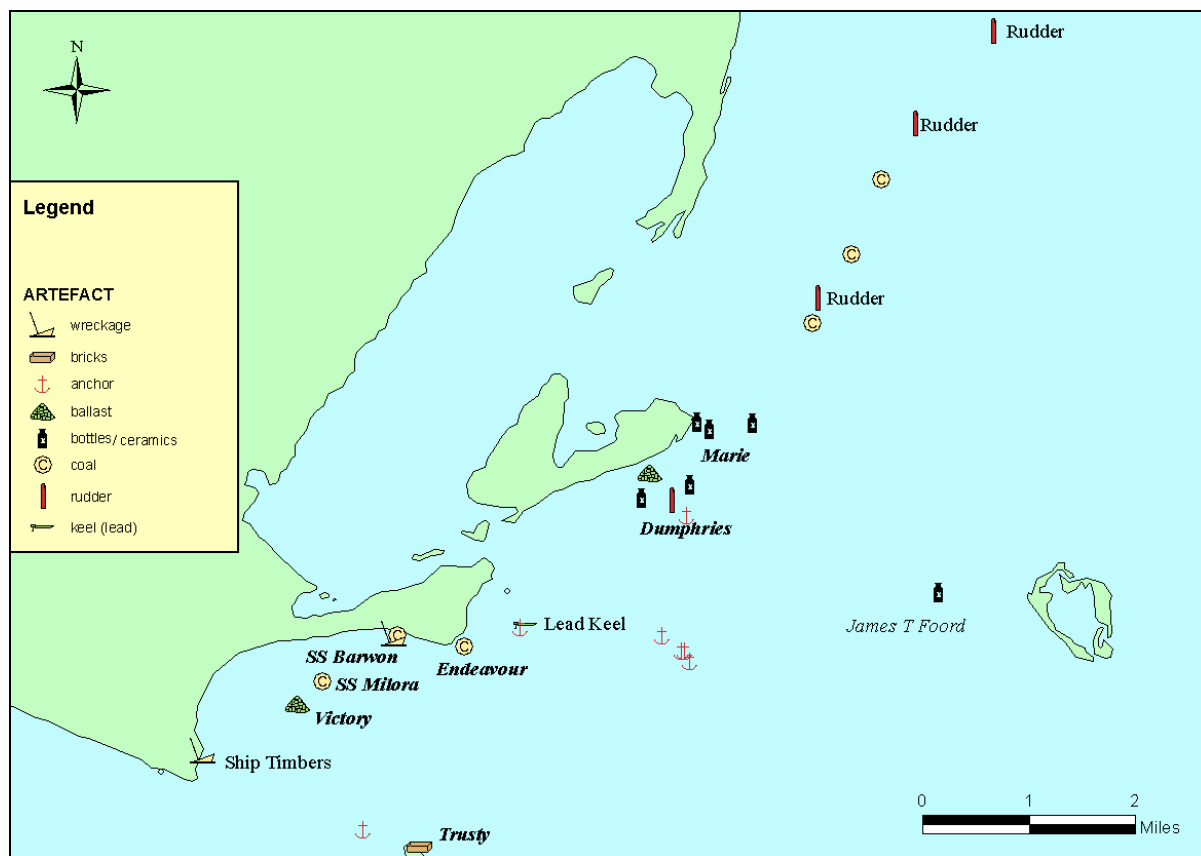


Figure 7. 34: Possible archaeological signatures of stranding sites.

Several ballast mound sites possibly associated with strandings have been documented by local divers in Hobson's Bay [MV; PT; SA], and numerous other stranding sites have also been identified in other areas around Victoria during the course of this study (Duncan 2003a:419). One ballast mound was inspected in Hobson's Bay as a comparative site during this study (Figure 7.33). The mound was approximately 1.5 m high, and between 12-13 m wide, and was covered in deposits of nineteenth century artefacts. One side of the mound exhibited a small offshoot pile where the ballast trailed away, which may have been caused by the ship swinging at her anchor as she was lightened off the bottom.

II) Archaeological Signatures of the Lifeboat Service

The landscapes of wreck management were still abundantly evident in the study area. Lifesaving signatures included a signal station, a wreck bell for summoning the lifeboat crew, a lifeboat shed (usually located on a pier, either on davits or an inclined slipway) and intact lifeboat, and rocket sheds at Pt Lonsdale and Sorrento Pier (see Figures 7.35-7.43). The former two structures were

located close to the lifeboat crew, who were predominantly fishermen, and the latter close to the probable wreck sites (at Pt Lonsdale and Pt Nepean). A signal station was also used as a lookout tower to visually determine shipwreck occurrences, although these features might not occur in more isolated shipping laneways. Given the lighthouse service coordinated any rescue, lighthouse facilities were also often located close by, and these included lighthouses and accommodation quarters, beacons, tidal flagstaffs and telegraph facilities. Appendix F-4 provides further historical details and archaeological signatures of navigational landscapes. Other signatures of the lifeboat service might also include small kedge anchors left close to the wrecks, which were used to haul the lifeboat away from the scene after the rescue in heavy weather. Three “scuba tank shaped objects” located off Swan Island [SA] may be the remains of the projectile rockets used for the breaches buoy lifelines (see Figure 7.41). These relics do not necessarily designate the locations of actual wreck rescues, but could also indicate rocket firing practice areas.



Figure 7.35: Queenscliff New Pier lifeboat shed.



Figure 7.36: *Queenscliffe* lifeboat, Queenscliff Maritime Museum.



Figure 7.37: Signal Station inside Fort Queenscliff.



Figure 7.38: Queenscliff wreck bell.



Figure 7.39: Pt Lonsdale pier lifeboat from c. 1940s-50s, QMM Collection.



Figure 7. 40: Pt Lonsdale rocket shed and lifeboat pier.



Figure 7. 41: Lifesaving rocket launchers display. Note rockets projectile in barrels tubes (QMM Collection).



Figure 7. 42: Figure 8. 42: Probable rocket shed, Sorrento Pier.



Figure 7. 43: Probable rocket shed, Sorrento Pier.

III) Archaeological Signatures of Shipwreck Victims

The extant workshop of former Priddle's Coffin Makers were shown to the author by Colin Springhall at his property in Hesse St (Figures 7.44-7.47). The original workbench, sharpening grindstones, tools, coffin storage and office are still extant (now used as an informal workshop), along with the former morgue, which is still located on the property. Another morgue which formerly stood on the Fishermen's Pier (Figure 7.48) is now located in the QMM [LJ; PF], and the rocket shed at Pt Lonsdale was occasionally used as a temporary mortuary [WN]. As The Esplanade was the closest hotel to The Bay, The Heads and also to the New Pier, in the 1960s it was required by law to maintain a coffin on its premises should a body be recovered in these areas [JnA], which could possibly have been extending a former tradition identified in Melbourne, where waterfront hotels were often used as makeshift morgues (Duncan 2004a).

Other archaeological evidence included shipwreck victim grave sites at the Pt Lonsdale cemetery. Although not undertaken during this study, it is recognised that there is further potential to examine the spatial distribution of shipwreck victims internments to determine whether they were buried locally, in mass graves or transported to (and buried in) other areas. Although early burials (which probably included wreck victims) were known to have been interred beneath the current Queenscliff Football Ground and to the south of the low light (see Figure 7.51; GA 20/11/1866; 29/11/1866; McWilliams 1865 plan), only some of these corpses were re-interred (Simpkin n.d.:12) when the Pt Lonsdale Cemetery opened around 1864 (Dunn 1949:39). The subsequent development of these areas has obscured and removed all traces of any former monuments related to these grave sites, but the opportunity exists to pinpoint their presence through remote sensing. It is also probable that where early wrecks occurred that bodies, (possibly in mass graves) were buried close to the wreck sites at Pts Lonsdale and Nepean.

Other sites of interest arising from shipwrecks include a conglomeration of memorials on the south side of Shortland's Bluff (Figure 7.49), and the St Georges Church memorial to a recent Pilot boat tragedy (Figure 7.50). It is of interest that all the memorials in this area and elsewhere around Queenscliff are dedicated either to local loss of life in wrecks, or military personnel lost elsewhere, but that nowhere in the town is there a memorial to the victims of the numerous other shipwrecks that occurred in this region. This suggests that the memorials themselves have personal and communal local value as tangible sites for grieving for relatives and acquaintances lost at sea, where the actual loss site is seemingly intangible due to its invisibility from being underwater, an observation that is supported by Gibbs (2005). Figure 7.51 shows the locations associated with the dead in Queenscliff.

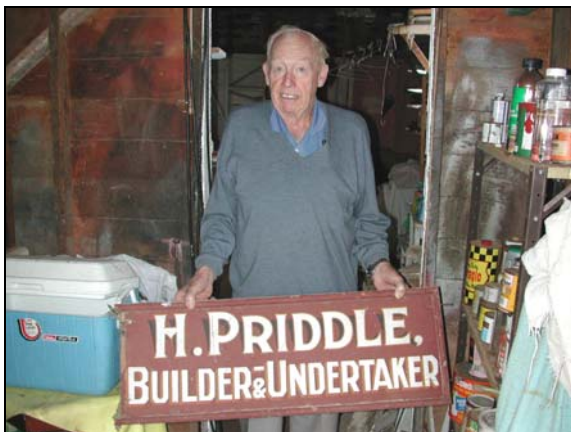


Figure 7. 44: Colin Springhall in Priddle's coffin maker's workshop.



Figure 7. 45: Coffin making workbench, Priddle's coffin makers.



Figure 7. 46: Former coffin maker's workshop from Andrews St, Queenscliff.



Figure 7. 47: Former morgue in Andrews St, Queenscliff.



Figure 7. 48: Former Fishermen's Pier morgue, now located in Queenscliff Maritime Museum.



Figure 7. 49: Shortlands Bluff memorials.



Figure 7. 50: Pilots memorial lights, St Georges Church.

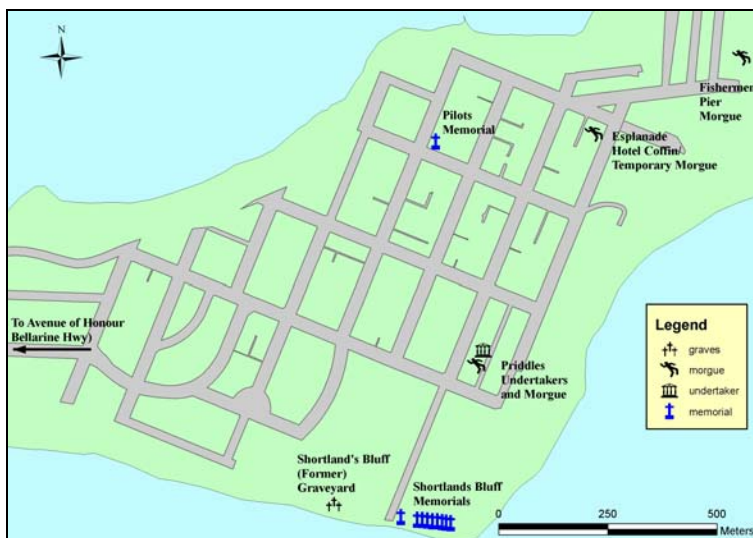


Figure 7. 51: Sites associated with the dead in Queenscliff.

B) Shipwreck Exploitation Landscapes

I) Official Salving

Salving of wrecks was evident by the remains of a tugboat *Black Boy* at Pt Lonsdale, and the salvage barge *Eleutheria* (in central Port Phillip Bay) both of which were wrecked when engaged in salvage operations on other shipwrecks (Anderson 1997a:29; Strachan 2000:25). Several informants suggested that the remains of a salvaged shipwreck were once evident in the sand dunes behind the Pt Lonsdale Golf Course (off Gill Rd – [WN]), and others have suggested that sand blowout in this area was a result of the operations to salvage sections of the wreck of the *Light of the Age* [LH], which is immediately opposite the wreck site. A donkey boiler reported to the west of this site (Anderson and Cahir 2003: 237) may also be associated with shipwreck salvage efforts. As mentioned previously, other potential archaeological signatures of salvage include salvors camps, rail or tram lines to wreck sites, flying foxes, corrugated roads, other cleared areas through the scrub, donkey boilers and other machinery, flotsam trap accumulations of lagan material, or the remains of buoyancy devices (e.g. ship tanks), evidence of explosives use (e.g. *Hurricane*), grappling hooks, flotation devices (e.g. the Mackay devices found on the *City of Launceston* - Strachan 2000:24) or absence of cargo (which had been salvaged).

Other types of exploitative sites associated with hulks include ship breaking sites where vessels are dismantled either where they were either deliberately or accidentally run aground in shallow water (e.g. *Lady Harvey* at Queenscliff - Fanning 1892c, *Light of the Age* at Pt Lonsdale). A number of ship-breaking sites were also visited outside the study area including the *Kakariki* which lay approximately 500m offshore in shallow water (3m) at Williamstown (Melbourne), a ship-breakers yard in the Maribyrnong River (Melbourne), where the bow of the former Bay Steamer *Edina* was evident projecting from the river bank (Duncan 2003), and a number of ship-breakers yards at Geelong (Duncan 2004a). The latter sites were characterised by the remains of vessels in shallow water or onshore with stone access piers, crane/derrick remnants (consisting of anchor points in rocks, concrete filled drums and wire cables) which were used to haul the hulks ashore over artificial rubble hard, and the facilities were situated on the periphery of populated areas. These types of sites represent a component of shipwreck utilisation which with a few exceptions (e.g. Pastron and Delgado 1991) has been sparsely explored.

II) Archaeological Signatures of Shipwreck Looting and Caching/ Flotsam Traps

Although no physical evidence of looting or cache was located during this study, analysis of historical documentation and oral histories suggested that new types of archaeological sites associated with these activities may be discovered in the future. The archaeological characterisations of looting and caching behaviour may include isolated clusters of similar types of artefacts close to wreck sites, individual barrel remains above the high water mark, trenches lined with corrugated iron, or isolated boxed/tinned/barrelled artefacts in unexpected places (e.g. fields, sand dunes etc). Examination of the Pt Lonsdale and Lonsdale Bight foreshores revealed that the high often vertical sand dunes are still ripe for this kind of behaviour (Figure 7.52), as they are continually eroding with the seas and tide. Furthermore, the abundance of reburied looted items may explain the origins of several coin hoards discovered at Rabbit and Swan Islands (QS 25/9/1909; Thompson n.d.:8), and the discovery of an ancient compass (Hayden 1966:15; Lawson 2004a), which was subsequently used to reinforce the Benito Bonito legend.



Figure 7. 52: Di Smitt and eroding sandhills in Lonsdale Bight.

Numerous shipwreck sites are known in the study area, along with scattered wreckage throughout the Bay. It has been demonstrated that looting was widespread throughout the community. A number of potential areas for looted material were identified (by documentary and oral histories) predominantly close to wreck sites in sandhills, but also in remote areas away from the wrecking event, such as Swan Island, Mud Island, Nepean Bay and Lonsdale Bight. Looting may be characterised by isolated finds above the high water mark, some of which may be buried in lined trenches, kerosene tins or other containers.

Schmidt and Mrozowski (1988:36-39) have suggested that evidence of smuggling may be found in the cargoes of wrecked ships, or in rubbish dumps in the form of imported exotic alcohol and perfume bottles. Furthermore, the archaeological presence of luxury items within poorer housing areas and their associated rubbish dumps, or under public amenities/buildings may not necessarily indicate affluence (as may be first indicated), but could be attributed to caching behaviour or illegal trading associated with looted shipwreck material. Looting may also be evidenced by the presence of maritime building materials in local houses (e.g. copper bolts or spikes, shipwreck timbers).

Underwater deposits of spirits bottles (some *Belfast Whiskey* bottles) on the northern tip of Swan Island are consistent with historical accounts of excessive drinking amongst looters of the wreck of the nearby *Will o' the Wisp*, or may also possibly originate from the *Sierra Nevada* shipwreck (which was carrying a similar cargo). The proximity of these deposits to the nearby fisher's anchorage in Stingaree Bight (Swan Island) provides possible indications of the identity of the looters (Love 2006; [PF]). These observations are consistent with the excessive types of behaviour outlined above, and it is postulated that overindulgence sites will be characterised by large quantities of alcoholic containers (bottles, ceramics, barrels etc), and large quantities of broken artefacts (which are possibly luxury goods). Given the repeated insinuations of the involvement of the fishing community in these activities, archaeological evidence of looting is also more likely to be found close to areas used by the fishing community (e.g. anchorages, residences, camps and piers).

A summary table of potential sites associated with shipwrecks, strandings, salvage and looting is contained in Appendix F-5.

Evidence of several flotsam traps were identified in the study area, including Lonsdale Bight where a ship's timbers was wedged between rocks in the intertidal zone, and several isolated finds of ships spars around Pt Nepean and in The Rip, all of which concur with historical data. Further evidence of flotsam traps may exist under prograded or collapsed sand dunes in Lonsdale Bight, the eastern shoreline of Swan Island (which could not be inspected) and at the Mud Islands. The lack of visible evidence of wreckage at these locations could also be attributed to the prolific professional and opportunistic salvaging that was undertaken in these areas in historic times.

C) Did Deliberate Wrecking Take Place around Queenscliffe and Port Phillip?

I) Possible Archaeological Signatures of Deliberate Wrecking Behaviour/Threats

The demonstrated economic importance of shipwrecks to the Queenscliff region also raises the spectre of another more sinister practice, deliberate wrecking, where vessels were intentionally enticed into dangerous areas to cause shipwrecks. Deliberate wrecking was a common practice around the world during the early nineteenth century, where ships were lured ashore by creating false beacon lights that were confused with expected navigational facilities, whereupon it would be stripped of all valuables and on occasions the crew and passengers were murdered to protect the wreckers' identities (Bathurst 2000, 2006). Given the demonstrated economic importance of shipwrecks to the local community, this study specifically searched for evidence of this practice in the greater Queenscliff region.

Both the High and Low lead lighthouses at Shortland's Bluff (from the 1860s) revealed that the original doors were set approximately 4 m above the ground, which were later changed to set the door at ground level (Figures 7.53 and 7.54). A local historian (Raison 1997:) has suggested that the raised doorways were part of a standard design that was exported from England, where the original raised doors reflected the British intention for installation in lighthouses which were set at sea level and under threat of inundation (similar to the Bell Rock Lighthouse). However, as these structures were manufactured and designed by the PWD in Melbourne (GA 28/4/1862:2; QS 11/5/1912), the opportunity existed to modify the UK design prior to construction, and as the lighthouses were set 74 and 93 ft above sea level (respectively), there was no need for a raised doorway. Furthermore, a slightly earlier Cape Wickham Lighthouse (built at King Island in Bass Strait in 1861) was of a similar shape to the Shortland's Bluff lighthouses, but the access door was set at ground level (Walker 1998:104; DTC 1988: 70-1). UK lighthouses set at water level had doors several metres higher than the Queenscliff versions (Bathurst 2000), with solid bases for added strength, suggesting that the local lighthouses were not a standard English design. Similar raised doorways in the UK were also implemented to stop wreckers extinguishing lights to cause shipwrecks. This raised the possibility that the elevated doorways were designed to restrict access to the light and therefore, by inference, that deliberate wrecking may have been a concern when the lights were constructed. Further investigation of this hypothesis was warranted.



Figure 7. 53: Former raised Doorway in the High Lighthouse, Shortland's Bluff.



Figure 7. 54: Former raised doorway in the Low Lighthouse, Shortland's Bluff.

II) Evidence of Potential Wrecking Behaviour: Local Historical Accounts

Although rigorously denied by the local community, a few examples were identified of possible deliberate attempts at wrecking of vessels by third parties onshore. In one account, the Pilot Cutter *Corsair* had nearly gone ashore in 1854 when following a beam they took for a ship requesting pilot's services, which turned out to be from a fire onshore. The pilot complained that the light might have led ships to wreck, which would have happened if not for his local knowledge. It was revealed that the fires had been lit by "fishermen from Queenscliff" who were camped in the foothills on Pt Nepean, but no explanation was offered as to why they were there in the first place. It should also be noted that a trade in supplying sly grog into the Quarantine Station was thriving at the time, and certain parties from Queenscliff often visited the area under the guise of collecting firewood or water from the station's well (Welch 1969: 47-8).

Further evidence of potential wrecking behaviour was located when the clipper *Sussex* went ashore, near Barwon Heads in 1872. The remains of two fires lit one above the other were located later in the foreshore dunes, which the vessels master had confused for the lead lights at the entrance to the Bay and gone ashore. Although it was suggested that these fires had caused the wreck, no plausible explanation for the lighting of the fires in this location was given (GA 6/1/1872, 10/1/1872).

The final case involved the vessel *SS Nubia*. Nepean fishermen had netted a large shoal of salmon and had “paddocked” the fish inside the net at a beach, where they were securely held until the next morning. When the fishermen lit a large fire for the night, the pilot in charge of the vessel mistook it for South Channel Light, and it nearly wrecked on Pt Nepean (Dod 1931:76-7).

Although these events demonstrate the potential for wrecking behaviour they are in themselves not conclusive evidence of it. In order to establish if actual wrecking did take place in the area, it was first necessary to investigate the historical circumstances of the time. Although the possibility has been discounted by numerous local historians [JG], if wrecking did take place, it was probably restricted to the period prior to the establishment of the town, when government services were limited in the area and/or navigational facilities were minimal.

Most of the early opportunistic salvaging from shipwrecks took place predominantly from around the 1850-70s, and gradually decreased until the turn of the twentieth century as navigational and safety installations were improved. This situation was consistent with the last days of piracy that was still being experienced predominantly at frontier locations in the West Indies, UK, Canada and USA (see Appendix F-6).

III) Immigration and the Potential Importation of Deliberate Wrecking Practices During the Victorian Gold Rush Era

The discovery of gold in Victoria in the 1850s introduced an astonishing degree of lawlessness to the colony that had not been hitherto experienced. Incoming ships at this time also suffered from an alarming desertion rate, as crews left in droves for the goldfields (Draper 1900:13). The situation became so bad that some crews even set fire to their ship to prevent its outwards voyage (Foster 197:38). A great number of wrecks occurred at The Heads during the Gold rush period (1850-70s), when immigration into the colony had boomed, and settlers from all socioeconomic backgrounds flooded the colony, initially from the goldfields of California, and later from Britain. Incoming ships during this time were frequently laden with extensive cargoes of industrial or luxury goods and immigrants’ possessions, and often carried substantial cargoes of gold for the return voyage home (Foster 1988: 17-9, 26), and some of these were hijacked on their way home (e.g. *Madagascar*- Bradlee 1923:169-71, 174). Many in the colony were also concerned that any privateer entering Port Phillip could hold Melbourne to ransom for the gold shipments to England, which led to agitation for the installation of Heads defences as early as 1852 (Raison 1997:7). Gold

rush shipping around this time therefore clearly offered lucrative bounty for both pirates and wreckers, particularly if wrecked close to shore.

A quick review of the origins of a cross-section of the Queenscliff and Mornington Peninsula communities revealed that many inhabitants had emigrated from Cornwall, Devonshire, and other coastal regions of England, Scotland and Ireland, and California (Sutherland 1888b:159-71, 390-401; QS 22/10/1892), all of whose populations have at times harboured looting/wrecking communities. There was a demonstrated influx of Cornish miners associated with the gold rush during this period (Birmingham et al. 1979:37, 44), and other immigrant miners came from the California Goldfields, whose lawless frontiers often attracted speculative prospectors across the country. It is therefore possible that former members of wrecking communities from southern England and the American eastern seaboard may have immigrated to the Victorian goldfields, and may have found richer pickings along the coastline by luring gold laden and immigrant ships ashore.

Furthermore, during this period the colony experienced increased problems associated with ex-convicts and thieves. Violent robberies were prolific on the gold fields, and bandits even targeted gold transport vessels at their moorings in the very heart of the new metropolis at Hobson's Bay (Sutherland 1888a:136, 333; Draper 1900:1-6). The fear of increased crime associated with the influx of ticket of leave and ex-convicts (who were referred to as "moral sewerage") from NSW and Tasmania into the colony in the 1840-50s prompted a campaign against the transportation of convicts to the Victorian colony. This ultimately led to the introduction of the *Convict Preventions Act* in 1851, which denied them access to the colony (GA 12/9/1854:4; Sutherland 1888a 334, 337). Despite the bans, large numbers of ex-convicts entered Victoria from Van Diemen's Land during the gold rush period, some by pirating vessels in Tasmania (eg. *Gratitude*, MMH 8/6/1852:2), and these unwelcome visitors often caused trouble in several isolated districts (Day 1992:286). By 1853, the Victorian Police Force consisted of 1589 men to combat the increased crime rate (Sutherland 1888a:339). As many early convicts were originally from Ireland, Cornwall and Devon (locations previously known to have housed wrecking communities), it is conceivable that when large mobs of former criminals failed at gold fossicking, they may have turned their hands to other economic endeavours including opportunistic salvage or possibly even wrecking. Clearly both the community and government were paranoid about the safety of the colony and threats to it, from both external and internal threats.

Given the remote location of Queenscliff, it was possible that this pursuit could have been practiced by some unscrupulous characters very early in the region's history, but (if practiced) was unlikely to have continued much later than the 1870s when permanent military bases were housed in the area, which would have probably prevented this activity.

IV) Raised Doorways = Heightened Paranoia?

It is clear from the previous discussion that there was a perceptive fear of the increase in lawlessness around the early periods of the settlement (see GA 12/9/1854:4), but it was unclear as to whether the raised doorways equated to evidence of wrecking. There are two ways to read the situation, the first being that there was a fear of actual deliberate wrecking as these individuals sought to benefit through these illegal activities. It is interesting that although the local population expressed interest in the raised doorways, there was no clear evidence of this sort of behaviour in oral histories, and all those interviewed said it did not happen. Furthermore, an historical memoir in a local newspaper recalled that the coasts were often littered with the debris from wrecks, especially around the 1850s when "people were too absorbed with the gold rush to salvage this material" (Fanning 1892c). Additionally, the first lighthouse built in the area in 1842 and the subsequent timber lead lighthouse (1852) both had their doors set at ground level (Images PH1; Ph 4560 and WD 54, QHM Collection – see Appendix F-4), and these were built during periods in which wrecking was more likely to have occurred as Shortland's Bluff was undeveloped and undefended. It was therefore unlikely that wrecking took place during this period, and any illegal activities were probably limited to opportunistic salvage only. The increased presence of the military from the mid 1860s onwards would have further reduced the scope for this activity to have taken place.

It was therefore necessary to examine other possible explanations for the raised doorways, and an examination of the contemporary political scenarios at the time of the building of the lights revealed a more plausible explanation. The Shortland's Bluff bluestone lead lighthouses were installed in 1862/1863 (GA 1/1/1863:2), and coincided with the period of the threat of war with America in 1861 (Barkley 1861) and a visit to the colony by a Russian warship in 1862 (Scratchley 1863: 29; Tate 1982: 50). When the lights were being constructed although the first three guns at the fort had been delivered to a battery where works were underway, they were not supplied with ammunition until at least 1862 (VPD 1862: 420, 718), and a volunteer force only manned the battery location on the weekends. As has been demonstrated in Chapter Five, this was a period of great paranoia in the

Colony, where perceptions were rife of invasion and this area was very isolated from the main defences at Hobson's Bay. As the light towers were essential elements for guiding ships through The Rip, they represented key strategic targets to any foreign power that might want to lay siege to the Colony. They were possibly perceived as being under threat at this time as they were essentially unguarded. It is also possible that the installation of the above ground level doorways were implemented to curtail any deliberate activity by privateers and/or a foreign power to close the harbour, or deliberately wreck vessels while they held the port to ransom, as the installation of the lighthouses coincided with the fortification of the gateways to the Colony against such events. This is supported by the observation that the doorway entrances were lowered to ground level well after the fortress was built around the upper light in the 1880s.

[JG] has suggested a more pragmatic solution was that the doorway entrance may have been raised as oil storage tanks may have been located under the raised doorway. While plans of the former lighthouse were not located to test this theory, Dod (1931:16) recorded that the Colza oil for the lighthouse lamps was stored in wooden barrels in the 1860s, suggesting that oil tanks were not used in the lighthouse (an observation that has also been made by the author at other lighthouses around Victoria, where external oil stores were constructed to prevent the risk of major fires inside the light structure - e.g. Gabo Island). Furthermore, a cellar was known to exist underneath the High Light in the 1880s [PF], which suggests that the area under the original doorway was hollow to allow access to the underlying basement. As the construction of the lighthouse was delayed until a site with suitable foundation was located (Raison, 1997:6), it is unlikely that the cellar was dug after the lighthouse was completed. Until further evidence is found to the contrary, this may support the above observations that the doorways were raised to prevent access to the lighthouse by undesirable parties who threatened to extinguish the light. Although it is possible that wrecking may have taken place in the Queenscliff area, it is more likely that this custom was limited to looting once shipwrecks had already occurred (a practice that appears to have continued until recent times), and that the raised doorways were actually part of the defence system at The Heads.

5) Traditional Practice/Transported Landscapes Associated with Shipping Mishaps

A) International Shipwreck Assistance and Exploitation Practices

The numerous incidences of shipwrecks in the study area have produced many reactions that have similarities in many other maritime communities worldwide. Observations of the salvation/salvage

behaviour described above at Queenscliff were repeated in many nineteenth century American (Thoreau 1865:4, 5, 29, 34) and English coastal townships (Treanor, 1904:57, 102). Lifesaving in the UK was largely undertaken by companies of beachmen and fishermen who supported themselves by salvaging cargo from vessels (Malster 1974; Hedges 1989: 24-5). There are obvious comparisons with the lifeboat service in Britain. Yawls were adopted for use in early rescues by the Queenscliff based government boat crews (see Figure 7.7) since their applicability for these tasks had already been proven in similar situations throughout the UK (e.g. Malster, 1974:34), as were subsequent later overseas lifeboat designs. Many of the practices and organisational procedures used in lifesaving were adopted directly from England (Treanor, 1904:83, 97, 121, 141; Malster 1974; Goldsmith Carter 1945:12). Wreck bells were also centrally located in these communities, and observations of similar rushes by fishers to be included in the lifeboat crew (Treanor 1904:65, 143 - Figure 7.55) further reinforce the financial dependence on the lifeboat stipends and potential wreck salvage opportunities for these communities.



Figure 7. 55: Volunteers rush to get on the lifeboat crew in response to the wreck bell in Kent, UK (In: Treanor 1904).

Although many overseas townships relied heavily on shipwrecks for incomes through legitimate salvage (Treanor 1904; Goldsmith Carter 1945:14-5; Malster 1974; Souza 1998: 25-7; US Dept of Commerce et al. 1999), numerous communities also actively exploited and/or encouraged shipping mishaps for economic exploitation (e.g. New Jersey - Bradlee, 1923; Florida and Bahamas - Souza 1998: 25-7; Massachusetts - Thoreau (1865); Lake Huron - US Dept of Commerce et al. 1999:138; Goodwin Sands/Cornwall/Devon/ Scilly Isles/Hebrides Islands/Scottish Highlands/Ireland UK - Stevenson 1912:17; Larn and Carter 1973; Bathurst 2000, 2006; Evans 1957:232; Södertörn, Sweden – Rönnby 1998). In these instances, plunder from shipwrecks was often seen as an

inalienable right, especially where local natural resources were scarce (Bathurst 2000). This behaviour was often associated with nearby fishing or mining communities, particularly on the Cornish coasts, and was also usually historically linked to smuggling activities (Vivian 1969; Larn and Carter 1973).

Looting of wrecks and smuggling were often complementary activities (Larn and Carter 1973), especially as items taken off wrecks were often deemed smuggled goods. Many similar observations were made of small contemporary maritime communities (particularly around south western England, Ireland and the American East Coast) involved in these activities. These included: the extensive involvement of fishers in the contraband trade; the burial of contraband goods to avoid confiscation; preferences for imported luxury status items (e.g. French goods); a universal disdain for authority; traditional knowledge of favourable weather conditions linked to shipwreck occurrences and seasonal availability of jetsam trap resources; the economic importance of beachcombing (particularly coal) with its associated resource collection tools (e.g. rakes) and etiquette (Thoreau 1865:27-8; Treanor 1904:26, 41-2, 69; Bradlee 1923:183; Goldsmith Carter 1945:14-5; Evans 1957:225, 232; Vivian 1969; Schmidt and Mrowski 1988:41; White 1997; Pipkin 2003:8; Westerdahl 2003b:19; Bathurst 2006). These observations are expanded in Appendix F-6.

B) Shipwreck Exploitation/Looting as Traditional Local Practice

There are many parallels here with the sorts of behaviours that have already been described above in the study area. The incidence of looting in the region has many antecedents to similar behaviour worldwide, and may therefore reflect the transferral of traditional practices from the “old country” where they were embedded in routine seasonal activities. The regular occurrence of shipwrecks has been shown to have spawned many behavioural traits that have become embedded in customary community practices, which may in themselves characterise the Queenscliff community. These include a strange mixture of altruism and opportunism that in itself separates the nature of the shipping tragedies as events from places of resource utilisation. Several types of exploitative activities have been investigated, which range from official and illegal salvage, caching of looted goods, and seasonal exploitation of flotsam and jetsam traps. These behaviours have in themselves generated adaptive material culture to exploit (and hide) these resources.

It is clear from the observations above that many of the practices associated with shipwrecks in the Queenscliff area may have eventuated as a result of transported practices and beliefs that arrived at

the colony with immigrants. What we are therefore confronted with are not only extensions of traditional practices from ancient cultures, but that the Queenscliff area is actually an extension of ancestral homelands that exist many thousands of miles away. These practices represent a depth of hereditary knowledge and traditional customs that have simply been applied to a new setting, and suggest the wreck landscapes of Queenscliff have a cognitive time depth that extends far beyond the settlement of the township. It is therefore suggested that the exploitation of shipwreck and flotsam/jetsam resources is not a new phenomena that developed locally, but actually represents the transportation of a suite of traditional practices that were previously widely undertaken in various ancestral homelands, and that these activities are but a continuation of a traditional communal lifestyle that may be centuries old.

Furthermore, where local divers demonstrate lengthy ancestral ties to this area, their continued collection of shipwreck material may be alternatively viewed as a traditional practice (rather than souvenir hunting) in light of this study, as it is clear from the above discussion that wrecks have always been continually exploited as a resource in Queenscliff for almost 150 years, and only the environmental medium of access has changed from above to below water over time. This perspective offers interesting new interpretations of community values for current heritage management of shipwreck sites and artefacts.

6) Shipwrecks and Strandings as a Social Phenomena

As wrecks become associated with places in the landscape, we might question which groups and their associated behaviours are involved directly with them. Perhaps the most obvious group involved with wrecks are the Customs Department, who were responsible for policing smuggling activities (both from wrecks and illegal importation), and the crackdown on theft from wrecks. These official responses often led to the (attempted) suppression of many illegal activities, and hence generated subsequent reactions to authority that created an antipathy between the authority and community groups, which in themselves helped shaped the diverse thematic landscapes of the region. These reactions included the unification of normally socially separated local community (including the resident authorities - i.e. defence) and fishermen against the external law enforcers (i.e. Customs and Police).

It has been shown in previous chapters that many of the individual maritime trades within the community maintained their distance from one another, and that this was influenced by social status

and economic differences. However, the occurrence of a shipping disaster often led sections of the community to interact and come together sometimes for a common cause. A whole range of community groups were involved with the shipwrecks through rescue efforts, organised or illegal salvage, beachcombing and recreational activities, and these overlapped normally accepted class divisions to create new temporary social groups that disbanded after the wrecking event. Perhaps the most pronounced transmutation was the elevation of the fishermen from the lowest social strata to local heroes as lifeboatmen, who shared a common cause with the lighthouse service and military. Furthermore, this same social group was commonly vilified as the perpetrators of pillaging of wrecked vessels. Shipwrecks therefore presented an interesting dichotomy, which transmogrified fishers to temporarily become a class of respected lifeboatmen, whilst later reinforcing the class conscious status quo through their popular identification as looters. It is clear the occurrence of shipwrecks led to multiple overlapping landscapes within the Queenscliff society that cross cut the normal social and hierarchical boundaries, and therefore further influenced the structuring of the community both cognitively and physically. These aspects will be further explored in Chapter Eight.

Perhaps less well recognised is the suite of sites associated with shipwrecks and strandings that represent critical elements for constructing landscapes that are based around economic resources for a broad section of the Queenscliff community. Strandings and shipwrecks created new places in the landscape as they became identified as new resource areas. The event of a shipping mishap not only altered existing local landscapes through the introduction of a new physical wreck site, but also through the perceived generation of economic zones associated with new foraging places. These new opportunities for scavenging were clearly recognised as part of the renewable resource which became available and/or was replenished from subsequent shipwrecks and strandings. It has been shown that the community has developed new technology to both to harvest these new resources, and to hide them, which in turn is reflected in the recognition of these new landscape places and their associated innovative material culture. Therefore in areas where wrecks are common and semi-predictable event, the use of these secondary sites and the associated harvesting tools may further be considered to be the archaeological signatures of those events.

If we widen the scope of shipwreck research to include these new kinds of sites (which have something in common with shipwrecks through removal of cargo) then this allows a detailed understanding of stranding and/or flotsam/jetsam sites associated with shipping mishaps to also be considered. This enables further analysis of a whole new set of other behaviour that is currently

less well recognised, but also defines community, and in some cases distinguishes groups within the community (e.g. fishers and Customs men). Suddenly these wreck sites become places of hunter/gatherer behaviour that are resource areas, and what may not be further recognised is that these practices result in a whole set of behaviours that help define Queenscliff, and have associated archaeological signatures (e.g. wrecks/flotsam traps etc). In terms of what happens after the shipwreck event, these behaviours go on continuously, but they require replenishment as new shipping mishaps consistently occur in the same areas.

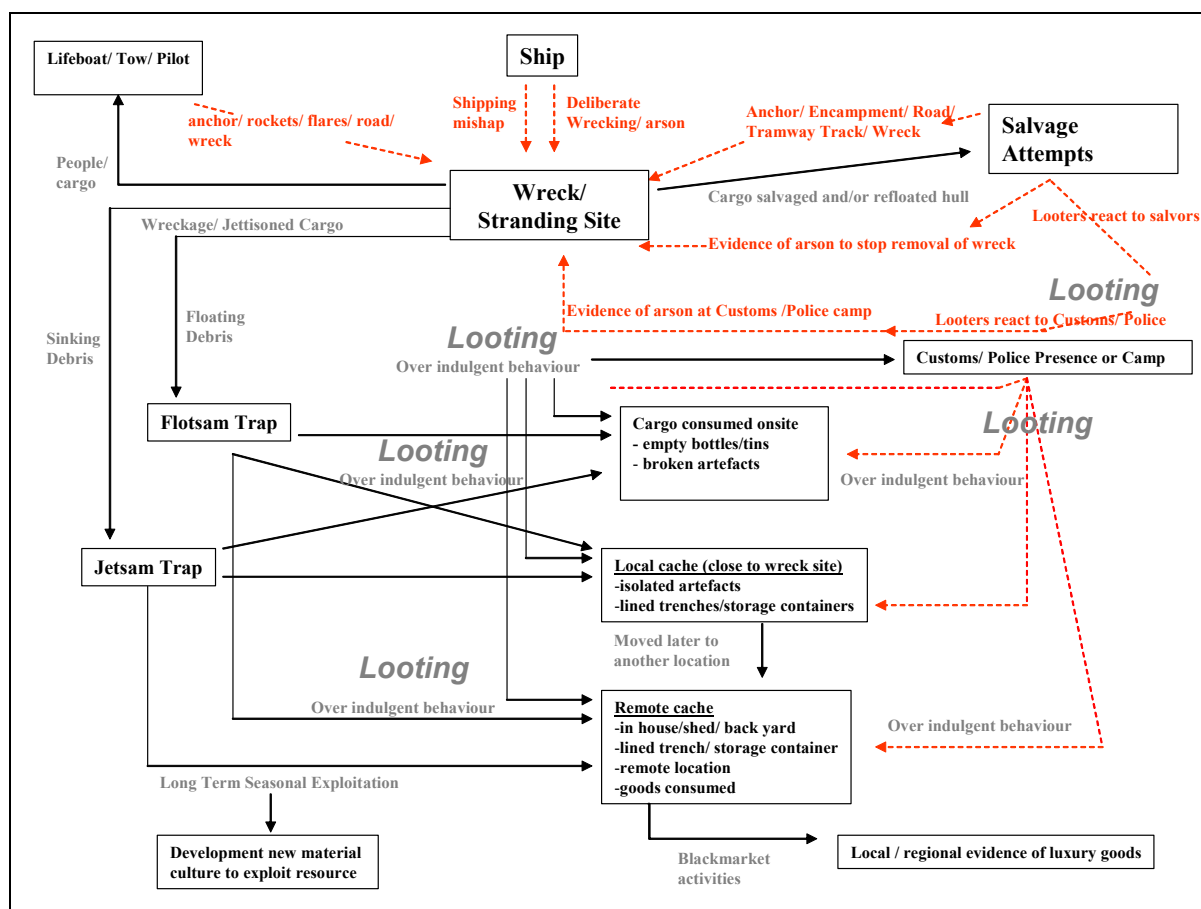


Figure 7. 56: Archaeological characterizations of shipwreck and stranding site exploitation.

Although the incidence of these bounties did not offer the reliability on which to base a living, they did supply many people with a financial windfall to tide them through lean times (especially in the winter). This salvage was therefore not only an opportunistic behavioural trait of many Queenscliff inhabitants, but also a consistently routine event upon which many townsfolk depended upon and planned for. These events have strong analogies to the seasonal availability of fish species, and tourists in the area, where the seasonality of the resource is known, but the volume and reliability of

the occurrence varies with the weather and the other external factors. Figure 7.56 represents a schematic of wreck usage in Queenscliff.

This dependence on shipping tragedies to supplement the incomes of the lower socio-economic classes might be termed subsistence salvage, where even though the events are sporadic and random, they are also predictable in that the probability of their occurrence increases over time. This highlights the duality of shipping tragedies, where both certainty and uncertainty co-exist, which thus generate a plethora of diverse and often opposite behaviours. The certainty of the event has generated a suite of responsive organised routines and procedures designed mitigate and minimise the damage caused by a shipwreck, which are centred around altruistic ideals. Conversely, the uncertainty of when the event will occur generates an opportunistic response to it, where frantic, often over-indulgent behaviour is undertaken in a race against time to secure the resource before it is reclaimed by the elements and/or the authorities. Furthermore, the unpredictable event then generates a relatively reliable seasonal resource (the flotsam/jetsam traps).

7) Discussion

It is clear that shipwrecks have modified and re-stratified the landscapes of the Queenscliff region affecting the social structure of the local community not only through the implementation of altruistic ideals (and subsequent practices), but also through the introduction of profitable economic opportunities that have at once united and yet polarised often disparate sections of the community.

Shipping mishaps alter the landscape initially as introduced events (and through the variety of reactions to them). They later become places which further alter perceptions and actual use of the landscape, both physically as economic resources, and navigational markers, and symbolically through their identification with dangerous regions, and their toponymic and individual/ personal memorialisation of events that become associated with specific places. Shipping mishaps have drawn out both the best and worst ideals of the community, which have produced distinct archaeological signatures and material culture beyond the locality of the wrecking incident itself. In summary, shipwrecks and strandings create (and are systemic components of) landscapes through their generation of idealistic virtues of heroism and altruism, profit and opportunism, and memorialisation of events, and through the subsequent creation of permanent, though often (physically) unseen places in the landscape.

It has been further suggested that these practices may have been transported to the Queenscliff area as a result of cultural diffusion initially associated with increased immigration destined for the Victorian Gold rush, which curiously also provided favourable conditions for their evolution in the new colony through an increase in shipping and hence subsequent shipwreck numbers. As such, the transferal of traditional practices from ancestral homelands overseas to Victoria represents a form of transported landscapes.

Furthermore, the investigation of local folklore, documentary and archaeological data sources has demonstrated that far from being isolated, unrelated and opportunistic events, there was a seasonal reliance on shipwrecks and strandings as integral components of the local/regional/state economic communities. Both historical and potential archaeological remnants of practices associated with looting have been highlighted, and shipwrecks have been shown to be pervasive elements of all facets of Queenscliff culture and essential components which continue to shape (and reshape) the cognitive and physical cultural landscapes of Port Phillip Bay. Finally, shipwrecks have been illustrated as both as an event and a place of resource procurement, which cross-cut the social boundaries normally extant in nineteenth century Australian culture.

In summary, shipwreck and stranding landscapes are predominantly evident in historical, oral traditions and toponymic sources, and are most archaeologically visible at the primary site itself. However, these incidents are perhaps most pertinently evident in the subsequent archaeological signatures of material culture of other thematic maritime landscapes, in the rigid organisation of the landscape in ways designed to prevent them, and their creation (and subsequent use of) new places in the landscape. In addition to the traditional environmental determinants usually associated with shipwrecks, shipping mishap landscapes were principally driven by altruism and economics, both through risk mitigation attempts (pilots/lighthouse service) to prevent their occurrence and minimise loss when they did occur (lifeboat/Customs/ Police), but also through their subsequent exploitation as opportunistic seasonal resources. Furthermore, it has been shown that seemingly intangible natural phenomena, such as wind, sea conditions, sound, tide and currents were all significant aspects of this cognitive cultural landscape. Wrecks therefore do not represent only dead ships associated with an isolated event, but also in a fundamental way create new landscapes and places. This is a fresh way to look at the coastal zone, where shipping mishaps generate hope and profit for the local population. Therefore in the mindset of the Queenscliff community, shipwrecks and strandings do not necessarily only indicate a dangerous coast, but actually represent a coast of opportunity.

...where insularity appears in the image of self and of the other, in the context of “life on islands” and the mentality of their inhabitants. That difference, that special quality that distinguishes them from the continent, remains! And it takes a long time before one can become an “islander”, if it happens at all! (Greverus 1999:63)

Chapter Eight: Crossed Paths - Landscapes of Community Interaction

1) Introduction

In the last three chapters I have explored how some thematic landscapes have been structured according to differential mechanisms (such economic, political ideologies and technological factors) which exist at many diverse social and geographic levels. However, these landscapes do not exist in isolation, but constantly interact to form collective landscapes of interaction. In this chapter, I will examine some of the relationships between the various Queenscliff community groups to gain a better understanding of overlap, boundaries and interrelatedness of those landscapes. The relationships between many of the distinct occupational groups in and around the town were investigated in further detail to examine cognitive structural aspects of community life, and how these are expressed in landscape.

The previous chapters have demonstrated the diversity of data sources that inform of each specialist maritime theme. Comparison between disparate data sets has in the past been considered problematic, as it was believed that only similar sources of information could be compared for analysis. However, the cultural landscapes approach recognises and validates this ambiguity between data sets and landscapes, making it possible to draw together all these slightly different data sets to attain a holistic view of collective/communal landscapes and how they are constructed. Even though each theme was approached from different directions using dissimilar data sets, it was possible to examine the landscapes of interaction that exemplify community relationships, and in themselves produce characteristic archaeological signatures. This direction provided yet another thematic approach to regional landscapes examination. Although analytical units (e.g. maritime themes) were still required to achieve a holistic representation of regional activity and utility, often the members of each thematic group were also considered part of other interactive landscapes. People do not belong to one social group only, but are involved in a variety of other activities that cross-cut normal social boundaries.

Many of the previous themes (and others not included in the main text: e.g. tourism) studied indicated that social hierarchy was a strong driving influence in landscape production, and this aspect was examined to determine its effects on cultural landscape differentiation and how this was archaeologically expressed within the township. It was discovered that hierarchical divisions played a pivotal role in the shaping of the settlement, and accounted for much of the geographical patterning evident in the township today.

Various other aspects of relationships were explored to investigate how the township operated. The strong presence of many authoritative maritime services in the area was investigated to assess their effects on landscape construction and the development of subsequent relationships within the township. Many landscape researchers have proposed that where control mechanisms operate (power landscapes), there will also be landscapes of resistance (Westerdahl 2002a). The presence of a highly hierarchical system in Queenscliff associated with tourism and the defence force represented one form of power landscape, but was not the only control mechanism that operated. The military also imposed their own form of authoritative governmental power that directly affected all citizens and visitors in the township. The area was examined with particular regard to landscapes of resistance, and possible relict signatures. Given the demonstrated previous independence of the fishing community, the fishing sub-culture was examined for signs of resistance to imposed control mechanisms and any attendant archaeological indications. Notions of territoriality within the township were also addressed, with particular regard to how individual groups used given areas that were often excluded to opposition classes. Physical expressions of social differentiation within the township were further examined with reference to the placement of individual features within the township.

Given the wide range of social groups that occupied and utilised the study area, a multiplicity of meanings were expected to be associated with various places within the landscapes, as people appreciate and assign value to individual features and areas for different reasons. Examination of these ideals presented the opportunity to further inform of the divergent individual perspectives of and interrelationships between community members, and the multivalency of landscapes that existed in the area at many different scales.

The combination of these disparate values formed a melting pot of meanings which contributed to a shared community identity, whose character was based on both common and different interests.

Given the proximity to, and reliance of the community on the sea, the nature of the community character was further explored with regard to collective maritime identity.

2) Queenscliff as a Maritime Island Community

Despite the fact that many Queenscliff residents were not involved in maritime activities, there was a demonstrated maritime identity that pervaded the community as a whole. Several informants indicated that Queenscliff was seen as a separate maritime community within a farming district. Several informants referred to travel to the adjacent Swan Bay farming district as “going to the mainland” [JM cited by LID; HM]. Another informant commented that: “we’re practically living on an island” [LZ]. Indeed, the Queenscliff township is in fact an island connected by a 250 m wide isthmus to the Bellarine Peninsula. During its early days, the borough was almost completely isolated from other settlements by dense bush land, and the principle form of contact and re-supply was by a narrow bush road from Melbourne and Geelong that was almost impassible in winter (GA 27/11/1855:2). By 1855, the local community agitated for a pier to more readily access the “splendid water communication” available on their doorstep.

Queenscliff depended on supplies by sea via early coastal traders. Most early modes of communications within the community were dependent on maritime transport, where steamers from Melbourne would undertake regular voyages to Queenscliff to deliver building materials not locally available (Cuzens 1912:3). It was not until early road and coach networks and later rail lines were built in the 1853, 1860 and 1878, respectively, that terrestrial transportation began to replace some maritime modes of transport (Perry 1973:41). Furthermore, even when public access roads were constructed into Queenscliff, they were often blocked by sand drifts, high tides (Dod 1934:50-1) or floods from Lake Connemara: “my Great Grandfather came here from Geelong in 1853... it took two days to get here...Lake Connemara often flooded across the [Geelong] Road and the carts had to cross up to their axles in water” [CA].

In the early days, the road blockages often obliged the use of a submerged limestone causeway from Burnt Point across Swan Bay to the township [LID]. The shortcut across Swan Ponds along a 20 ft wide limestone track (Dod, 1931: 55) that was later extensively used as a shortcut across the bay, and for the transportation of rubbish and nightsoil (QS 10/3/1894, 7/4/1894; [CA; CS; GW; WN]), and tangible remains of the causeway have been inspected by the author. Another submerged causeway was also known between Burnt Point and the communities along the Swan

Bay foreshore [GH; GW; LID; SS], and it was often quicker to visit townships in Swan Bay via this feature or by boat than road. The continued use of submerged causeways in the area may only have enhanced the isolation felt by the community (further aspects of submerged causeways and rubbish dumps are contained in Appendix B-4).

The remote nature of the township was also a result of its topographic locality:

The narrow neck separated us from Pt Lonsdale. It was all ti-tree and very little else in there. There was nothing along that peninsula. You couldn't farm it, and you couldn't graze cattle there. It created a separation point between us [Queenscliff] and the outside world. [JP]

The principle mode of transport between many other smaller towns on the Bellarine and Mornington Peninsulas was by small boats. Queenscliff football teams also participated in several cross bay football competitions, where teams would sail cross the Bay to play the Mornington Peninsula sides [GW; HM]. Queenscliff also acted as a hub for religious services for the borough and surrounding districts during the early days of the community [DB], and local youths often undertook recreational activities on offshore islands or on the eastern side of The Bay.

Shipwrecks also shaped Queenscliff's community since its very inception: "The Farming community did not have a Jack Loney (a famous local identity who strongly promoted Victoria's shipwreck heritage) to publicise it. Jack made shipwrecks important to Victoria. The Queenscliff identity was shaped by shipwrecks and the military" [HH]. It is clear that the Queenscliff community identity was drawn from its maritime services and connections.

Queenscliff clearly conforms to Westerdahl's (2003) definition of a maritime enclave, even though it was not a major harbour or port. Examination of surrounding communities on the Bellarine Peninsula (e.g. Drysdale, St Leonards) show that although these areas were also located adjacent to Port Phillip Bay and exported produce via steamers, they drew their identity predominantly from farming activities, which presents a significant observation of the importance of maritime industry to Queenscliff.

The enforced water crossings, along with the reliance on maritime transport for communications and supplies, may have reinforced the community's already strong maritime identity, and built the conception amongst residents that they were living on an island which was surrounded by a sea of agriculture. Similar observations were made by Scott (2004) about the township of Barwon Head, not 10 km to the west, which shares many similarities to Queenscliff. It has a strong fishing

community, coastal tourism and nearby shipwrecks, and it too was accessed across water (the Barwon River) via a ferry. This suggests in addition to profession and maritime culture, topography is also particularly influential shaping community perceptions of themselves.

Greverus (1999:63) recognised this sort of behaviour as a *cultural island*, where the distinct culture of community led to its own imposed self seclusion from the surrounding regions and the formation of its own identity. Greverus' comments on the nature of metaphorical islands have great applicability to Queenscliff:

...where insularity appears in the image of self and of the other, in the context of "life on islands" and the mentality of their inhabitants. That difference, that special quality that distinguishes them from the continent, remains! And it takes a long time before one can become an "islander", if it happens at all! (Grevarus 1999:63)

These observations further reinforce the importance of geographical location in defining landscape and community identity. In particular, bounded space in the form of water and "natural" wilderness was an important factor that solidified community relationships and provided a communal identity that distinguished those who belonged to the island from those outside of it. It is in this constrained geographical setting that the relationships of the various community sub-groups are examined.

3) Contested Space

Chapters Five to Seven have clearly demonstrated the diverse nature of the Queenscliff community, where many social groups operated within the narrow arena of the township and adjacent bay. Community interactions were guided by the effects of each social group's ideologies and landscape uses, and the restrictions that these placed on others. As different groups inevitably competed for space (because there was not much of it!), frictions and alliances arose that dictated the composition of the community and the subsequent social interactions. In particular, two factors were discovered that played major roles in the formulation of the Queenscliff social landscape.

A) Military Landscapes of Occupation and Exclusion

It was clear that in the formative years of the colony, that defence was a vital safety consideration that permeated the lives of all Queenscliff residents. However, as has been seen in Chapter Four, the community eventually became blasé to the threat of war in the twentieth century. The defence

presence eventually became a necessary way of life, but it was also resented by some sectors of the community. The rapid development of the military landscapes of Port Phillip was achieved often to the exclusion of other landscape users. The entire Queenscliff foreshore from the jetty to Pt Lonsdale was declared a defence reserve in 1863 (Scratchley 1863:13), which limited development in this area for at least 50 years. Early adoption of this policy had not affected use of some areas which had not yet been developed (such as Pt Lonsdale – gazetted by 1858), but other regions such as Crows Nest and Mud Islands were annexed after popular use of the area had already begun.

The general populace sorely felt the enforced intrusion of the military in their recreational and working landscapes. The appropriation of the Mud Islands as a defence reserve in 1872 led to the expulsion of guano miners from the islands for at least 20 years (Yugovic 1998:233). Similarly, local residents complained bitterly in 1886 when an eight inch disappearing gun was placed at Crows Nest, as the hill was a popular natural beauty spot (Tate 1982:69, 173; GA 13/8/1886). When further work was undertaken to install searchlights near Crows Nest Camp on a nature reserve in 1908, the borough council complained about the lack of consultation and unsolicited loss of tourist facilities (QS 21/11/1908), and because of the noise associated with their operation at night (QS 21/11/1908, 17/9/1910). Furthermore, during times of conflict the military often annexed whole areas of foreshore, which were enclosed with barbed wire especially along the foreshore of Lonsdale Bight, and was often excluded the local community (Evans, as cited in Tate 1982:144; [GW]).

The closure of this popular beach area also affected tourists, who had used it for swimming and for walking on the seaside promenade tracks. Additionally, other facilities, such as when the Cottage by the Sea convalescent home was taken over by the army to house soldiers during the war [GW], which deprived sick children of their annual seaside holidays (see Appendix D-1). Although regular visitors still came to Pt Lonsdale during WWII [JG], the exclusion from these areas must have had a tangible effect on tourism during this period. The lack of dialogue on this aspect in documentary sources may be attributable the military restriction on public comment during this period.

There were also several areas that were partially segregated dependent on connections to local military. When Swan Island was taken over by the military to build the fort in 1882, the island was still covered with native vegetation (QS 23/12/1882; [LID]), and it was already extensively used for fishing, firewood and bark collection, rabbit hunting and careening boats (Dod 1931:7; Ferrier

1991:1; [CS]), and was also home to several fishermen from the 1860s onwards (Dod 1931:25-7). The military presence gradually led to restricted access to the island. However the local population still enjoyed limited access through either employment opportunities on the island [LID], or illegal foraging (Ferrier 1991:1; [CS]).

Although fishermen were granted access to the Naval Dockyard at Swan Island in bad weather via the tramway (Ferrier 1991:5), their access to the eastern section of the island was still limited. The period of island Naval administration from 1909 to 1960 (Tate 1982:88, 112; [GW; LID]) appears to have been more relaxed, and employees were allowed to fish from the beaches, and also use the dock facilities for yachting [CA; GW; LID]. However, when the base was again taken over by the army in the 1960s, all access to the island was restricted, a fact resented by many locals.

The installation of minefields in the channels is a potent example of exclusionary behaviour, whereby access to even the seascape was directed and outlined. Although principally designed as a defensive measure, it too had effects on local and friendly shipping, with its exclusions to given areas. Furthermore, it has been suggested that the number of strandings experienced especially in the South Channel from the 1880s onwards may have been the result of shipping trying to avoid minefields [DL; PF]. The occurrence of monthly gunnery practice from at least the 1880s - 1908 (QS 29/3/1890, 16/5/1891; 10/12/1892, 3/2/1894, 22/8/1908), along with submarine mining practice in the West Channel near Swan Point (QS 29/3/1890) led to the delineation of many temporary prohibited areas (up to 3.4 miles offshore and 1.45 miles wide) which effectively closed the port and breaches of which were subject to heavy fines during gunnery times, and these restrictions were resented by mariners who livelihoods depended on unlimited maritime access. It is clear that as military influences expanded in the area, restrictions were placed on the development of other community landscapes.

B) Social Hierarchy Systems and Class Consciousness

Social status within the Queenscliff community has been shown to be a strong determinant to the early structuring of the township, when many of the colony's wealthy and social elite flocked to the area to escape the lower class hoards of the metropolises (see Appendix D-1). Queenscliff housed the entire spectrum of the Victorian social strata, from Governors, Judges and senior Clergy; wealthy pilots, pastoralists, and businessmen; to ethnic minorities and lower class labourers and tourists. Strong social divisions were apparent in Queenscliff, particularly in the early days:

Queenscliff was very split in the early days...Queenscliff was an army training ground for artillery men...they didn't mix, only with themselves. The army also only mixed by rank, officers with officers and so forth through the ranks...the pilots were also snotty in those days. Then there were a lot of wealthy western district businessmen who were here for holidays. Then there were the fishermen, they were the lowest on the rung. [GW]

In the nineteenth and early twentieth century the fishing community was regarded as the lowest social class within the community. This group comprised of a diverse multi cultural society with members from at least eight different nations [GW; JM; LF], many of whom were considered of low status or unsavoury ethnic origins. Fishers were sometimes referred to as the "fishing class" (GA 26/4/1867:3), and other accounts satirised them as illiterate drunks (Anon. 1884; Simpkin n.d.:10). An elderly local fisher recalled: "people looked down on the fishermen. They were up themselves at top of the town" [HM]. Other residents remembered a distinct social status system operated in Queenscliff:

Large families lived in Wharf St, on the Fishermen's Flat. They were [considered] the lowest strata in Queenscliff society. The Governor of Victoria had his holidays here, and Western District graziers also came for holidays. You were the lowest form of life in Queenscliff, as a fisherman. Gunners in the fort were the next class, then sergeants and non commissioned officers, trades people and grocers, and then the officers. [JM]

A local historian [JG] maintained that the class system within the Queenscliff community effectively shaped the structure of the town, which was class conscious but not class exclusive. She further maintained that values in the town were not based on money but class, and that "shows of wealth" [by the wealthy middle class] were not appreciated in the township.

Another resident observed: "They [the fishermen] were sometimes very wealthy people. You could make a lot of money fishing, but you were still considered the lowest on the rung" [GW]. It is probable that Queenscliff developed a different type of social structure to that of Melbourne, due to its compact geographical location and size, where everyone had to interact regardless of their class [JG]

The social divisions observed within the township are almost certainly directly related to interactions and disjuncture between different thematic maritime groups, and this aspect will be explored in further detail below.

4) Internal Social Relationships Within the Local Community

A) Social Relations Between the Army and Fishermen

The greatest social divisions evident in the town were between the fishermen and the defence forces. Several informants indicated that there had been acrimony between the two groups since the establishment of the army base. Some residents [JG; JM] indicated that in the early days, army personnel often regarded themselves as socially superior to the other residents of the town. Many of the early ranking officers were transferred directly from India (Perry 1973:40, 43), where the highest ranking officers often wielded enormous power, bordering on regal status in some areas. The local Indian caste system combined with the rigorous British observance of social segregation between the ranks, produced a strict societal hierarchy where fraternisation outside of one's class was discouraged [JG; JM]. When these same officers and their families were transferred to a Victorian posting, the social status intolerances often came with them.

Some of the army wives thought themselves elite. They considered themselves like the Raj in India. They didn't mix with the locals at all. Some [Victorian Era] women often went to India on holidays to fix a husband in the social elite classes in the army there. [JM]

Furthermore, in the early days of the colony's establishment, British officers often commanded the Australian Imperial defence forces. The hierarchical clan structure of the social classes in British society has always been well recognised, where commanding British officers often considered "the colonials" to be of lower social status (see Birmingham 1999: 77, 167, 283, 315-7). Additionally, during the mid to late nineteenth and early twentieth century at the height of the defence paranoia that was gripping the country, colonial defensive capabilities were heavily reliant on local militia regiments to supplement understaffed and under-funded defence forces. Militia training was compulsory for all local men and teenage boys (Macarthur et al. 1858:957; QS 25/9/1909), which would have further exposed the local community to the social prejudices of the British hierarchical system. Given that many early irregular "volunteers" would have been drawn from the fiercely egalitarian farming and fishing communities, the imposition of the accompanying social discriminations may have led to resentment of the army by some of the local populace. When permanent army personnel later replaced the local Volunteers manning the forts in 1883, the local community may have experienced not only an imposition of physical separation from previously accessible landscapes, but also a sense of loss of ownership of their roles as the frontline protectors of the colony that led to further resentment amongst the community. The permanent occupancy by the military may also have challenged their notion of localness (and who constituted a Queenscliff local resident), which had previously been defined by one's residence within the town.

Some residents indicated that the tensions had originated when the military personnel expressed interest in the local female population, as they had a larger disposable income and were generally better educated than the local fishing community [GW; JM], and hence were often more successful when vying for the attentions of the local girls. This was particularly a problem in the early years of the township from 1860-1880, when the small population meant that there were limited women of suitable marriageable age and status in the township [JG].

Additionally, many of the army personnel based at the Queenscliff Fort served overseas during WWI and II, and returned as commissioned officers and war heroes, whereas many of the fishermen were spared war duty as they were considered an essential service:

...the young ladies loved the men at the fortress. The Gunners at the fort were the backbone of the Australian Infantry Forces, and many of them went to Tobruk and El Ale Maine. Lots of young men returned from the war as commissioned officers. The army was well educated. The war... and the fort had a big effect on the town, and the girls too, and the fishermen. The army took all the girls. [JM]

A local newspaper editorial recognised the female indifference towards the fishermen, when it highlighted the heroism they often displayed in the lifeboat service, and drew parallels between them and recently returned war heroes: “[the lifeboat service] is as valuable as diggers work...There are land diggers and sea diggers” (QS 26/4/1919).

The soldiers paraded weekly down through the streets of Queenscliff, often watched by the tourists and the local single women, many of whom they later married (Tate 1982:142, 146). The regular marches through the town were not appreciated by the fishermen, who called it “the stallion parade”, particularly as there were often dances/balls held at the Garrison’s Recreational Hall or other local venues afterwards, to which the fishermen were not invited. These events were regarded as top events in the Queenscliff social calendar, and as the fishermen were rarely lucky enough to adequately clothe themselves, let alone afford suitable ball attire, and many resented the army’s show of extravagance (Gange, cited in Tate, 1982:146, 169).

The town’s young girls were frequently attracted to the soldiers in preference to the civilians (QS 5/11/1887, 21/6/1884; Tate 1982:167; - see Figure 8.1), and many accounts recorded the almost desperate attempts by local girls to attract a soldier:

It is a remarkable fact that...wherever the soldiers are you will be sure to find women. A stroll on the pier on a Saturday and Sunday night is sufficient to impress the veracity of this statement...There you will find a crowd of the fair sex largely predominating...we see our military friends ensconced on the corners, or strolling up and down with two,

three and often four of the little darlings around each, vying with each other for the word or look which may decide their fates...We become impressed with the belief that a soldiers life is not at all an undesirable one. (QS 15/2/1890)

To the women, the army represented a chance at escaping the poverty of fishing life, and possibly changing social landscapes to accessing others (of wealth and status).



Figure 8. 1: “Love and War - A Sketch at Queenscliff” (Sleap, IAN, 9/3/1889, SLV Collection).

Furthermore, these romances were often temporary, and when the transient soldiers were transferred away, local women were often left to deal with the consequences, which led to further animosity from their fathers and brothers. As a result, there was much jealousy of the soldiers amongst the local men:

Quite a few residents did not like the army, and there was not much interaction between the townspeople and the forces. The army were often arrogant, especially the officers, and overall they were seen as transients in the town. I’m talking about the later periods here, the late 1800s. The army was often seen as egotistical... the army had Spartan discipline, and I think this might explain why they were resented in some ways by the locals. The army had an easy life. They had a guaranteed income, a secure job and food every day on the plate. They had a rigid social status, and they all lived in the upper part of the town. The poor fishermen were lucky to get a meal on some days, and their work was all weather dependent. But the army was also the bread and butter for the town, as they had to buy all their daily supplies locally, and kept the merchants going. The young bucks were very envious of the army back then. [nw]

Neither was the animosity between the two groups a one sided affair, and class status was particularly evident within the army at the forts. During the 1920s, enlisted men were required to seek permission from the Commanding Officer before they could get married. One young gunner at Fort Queenscliff, (Evans, cited in Tate 1982:144, 159) described the procedure:

Up until 1925 it had been a regulation that the applicant had to bring his fiancée before the CO so that he, the CO, could satisfy himself that she was a suitable person to have on the

strength of the regiment. The Authorities did not want women of doubtful character cluttering up the barracks.

This was a common situation described by many military personnel (Tate 1982:159-61) and former local residents [DS; WN] recounted that their paternal grandparents tried to arrange their father's transferal from Fort Queenscliff to Darwin to prevent him marrying their mother because she was from a fishing family. It is unclear how successful fisherwomen were in courting soldiers as husbands, but the large rate of inter-marriage between fisher families suggests that the permanent army didn't tend to marry fisherfolk, at least in the nineteenth century [JG], a situation that later changed in the 1920s-40s.

Neither was the animosity restricted to adults or males. One informant [nw] recalled that some young girls from opposing camps did not mix at school for that very reason, a habit that continued into maturity.

I once had two old ladies who were from the same school...who knew each other, but wouldn't mix as they were from different fishing and army families. When I asked her why they didn't talk to each other she said: "We didn't mix then, so there's no need to mix now".

Whatever the cause, a great deal of malice was evident in historical and oral accounts between the local populace (especially from the fishers) and the transient defence population. Many incidents highlighted the simmering underlying animosity experienced between the two communities, where harmless, though deliberately irritating pranks were often perpetuated against the defence establishment [PF]:

Before 1900, they had a bugler at the fort to wake the army up early, around 6 am, and it woke a lot of townspeople up too. When people complained about it, the complaints were ignored. The fishermen were always up a lot earlier than this, they often left to go fishing at 4 am as the sun was getting up. One day, a young fella went up outside the fort and blew a trumpet at 5am and got the whole fort out of bed before they realised what had gone on. He did the same the next day, and even though they set a guard to try and catch him at it, they never did. [PF]

Clearly, the fishermen resented the encroachment of the military into their personal space, both on the water and especially throughout the township. Often though, the dislike spilled over into outright violence, and the football ground in particular provided a physical interface to settle old scores. The local football team, "The Cliff" (which was comprised mostly of fishermen), often clashed with the army team ("The Military") (QS 29/6/1907), and the competition was variously referred to as the: "Flats and Tops" ([HM]; Tate 1982:161), "Bottoms and Tops", "Coutas and Leathernecks" ([JB]; QS 1/6/1895), "Squids and The Tops" [JM]. Known locally as the "Saturday

Afternoon Bloodbath”, this football match often did not make it past the first quarter before fighting erupted [JB; JG]. Local newspapers often reported the “disgraceful behaviour” at the matches and play that was “burdened with grudge” (QS 23/9/1893, 28/8/1897). A typical match was summed up by the following article:

The military were keen to turn the tables this time, as they had a rod in pickle all week...it would have been a splendid game if it were not for several acts of foul play on the part of some players...Great rivalry has always existed between these two teams, and when they meet onlookers always expect a good game, but the kind of things which happened on Saturday does not tend to improve the game by any means, and until a player learns to keep his temper he should never play the game...[the players] should remember a football field is a place to play football, and not a fighting ring. (QS 29/6/1907)

The violence was not limited to the male population only, and women were known “to make good use of their hatpins when the players ran onto the field” [GW]. The fervour of local Queenscliff spectators was also commented on in the local newspaper, when it observed that:

...the barrackers, were very partial to our Queenscliff proper (team), and misjudged many acts against the artillery...and overlooked many that were not square on the part of the Clifties...it seemed each one said “ This is our own, our native land. We’ll fight with tongue, we can’t with hand”. (QS 10/5/1884)

It appears that these matches provided a pressure relief valve for venting tension between the two communities without fear of reprisal or prosecution, which allowed both clans to co-exist jointly outside those occasions, an observation that has also been recorded in other modern maritime communities (Wright 1992: 234-5). The animosity expressed towards the army and their football team was an anomaly amongst the regional football matches, which usually bonded the local communities, as they were brought together to watch friendly (but competitive) games. However in the case of the military/fisher events, the football oval, which was normally considered a place of leisure, was transformed into a battlefield of contested space.

However, the hostility between the two groups was not confined only to the football field, and as one soldier commented: “If they ever met [the soldiers and the fishermen] there would be a decent sort of fight” (Leslie, cited in Tate 1982: 161). This led to a differentiated landscape for both fishermen and soldiers, where some areas were out of bounds to the other group, or were contested space or spaces of contest:

The people from the top of the town would only come down this way to buy fish from the fishermen. There was great animosity between the top and bottom of the town, especially between the army and the fishermen. This end of town was off-limits at one time to the army. [GW]

The Esplanade Hotel was known for many years as a fishermen's pub, even in this author's own experience. Army personnel from the pre-WWII years reiterated this sentiment: "The soldiers did not dare go into the Esplanade, it was the fishermen's hotel" (Holdsworth cited in Tate 1982:161). Similarly, the memorial hall which stood on the grounds of the current RSL was used for military dances, and fishermen may have been excluded either officially or otherwise.

The feud continued until the soldiers began marrying the fishermen's daughters, forming family alliances between the two groups around the 1940s (Holdsworth, cited in Tate 1982:161). As [JB] noted: "It wasn't until the army blokes started to marry the fisherman's daughters that the trouble ceased...When the army went into the local footy team, they cleaned up the local league!". Many fishermen and military personnel did interact peaceably during this period (e.g. fishers moorings at and transport to/from Swan Island [HM; JB; LID]; the military vessel *Mars* assisted fishing boats where required - Tate 1982:181), which demonstrates the changing dynamics of community relationships.

B) Social Relations between Pilots and Fishermen/General Community

Relationships between the rest of the permanent population were more cordial, although social divisions were still evident in some cases. There were some suggestions of friction between the Pilots' Service and the poorer members of the town. Many early accounts detailed the popularity and high status enjoyed by early pilots within the community (QS 10/5/1884, 30/7/1910). In later years, pilots were often master mariners or former navy officers of high rank and status, and were comparatively well educated. Some informants with fishing backgrounds indicated that in the early days, the pilots were considered somewhat aloof e service, and that he was admitted even though he was only a public school graduate, and that the perceived elitism was probably based on their regular steady income and high prestige that came with the job [CSp]. Similarly, a former shipwright with the Pilots service (with a familial fishing and army background) indicated that his entry into the service was based on his skill and not class, and also noted the outgoing friendly nature of the pilots [JB]. Pilots generally exhibited good relations with the general community, and it may have been their affluence that attracted negativism from some sectors of the community, as they were able to buy land and build brick houses, and often enjoyed mixed with influential people, and very heavily involved in civic affairs and lodges. Although they often matched the fishers for bravery, they also employed many of them as boatmen, which led to a mutual dependency and respect [JG].

Some informants [nw] suggested that any perceived differences between the two groups may have arisen from have arisen from jealousy over the better working conditions enjoyed by the pilots, who had a permanent job, good conditions and were often on penalty rates, and that differing social interests (not status) also explained why pilots and fishers did not normally mix. Many informants reported good relations between the Pilots and Lifeboat Services, which was crewed predominantly by fishermen [HH].

C) Social Relations between Fishermen and Merchants/ Farmers

The extreme poverty of the fishermen, especially during the winter months, often meant that they were reliant on the good-will of the town's merchants, some of whom often extended credit to the fishermen during lean times until the fishing season began again:

The local grocery bloke stood by the fishermen during winter. He would let them put food on the rote, and they would pay up when they got their first fish catch. [JB]

A local businessman, who had a high regard for the fishermen, also recalled extending credit on many occasions, despite some difficulties in realising owed payments:

...well you did, it was hard to get money out of them; they never had any. There were two lots of people here, the army and the fishermen. The army had a canteen and would book up [the things they wanted to buy] and it would come out of their wages. You often couldn't get the money out of the fishermen [during the winter], and you couldn't take it out of their wages. If you had a monthly account for £4 you had a good customer. The fishermen earned their money though. They went out at 3 am in the morning. [CA]

Other townsfolk assisted the fishers wherever possible, including the guesthouses who supplied fishing families with leftover food from their kitchens [CA].

Farmers and fishermen appear to have gotten off to a rocky start in Queenscliff, when in 1866 the flat area near the Railway Station was used for the first local race track meeting. After a "free for all punch-up" developed between fishermen and the Swan Bay and Drysdale farmers, the Queenscliff horse racing industry came to an abrupt end (Dod 1931:30-1). Although intense competition between these two groups was also evident in the football matches in the nineteenth century, they lacked the animosity so frequently present in the games with the military (QS 28/8/1897).

Over time local farmers and fishermen developed a friendly, if not symbiotic relationship. An informal arrangement operated between the two groups, whereby farmers in Swan Bay would often plant extra vegetables in their crops for fishermen [DB]:

Fishermen would “pinch” vegetables, they wouldn’t ask the farmer or go up to the farmhouse to see if it was alright, but would take them straight from the field. The farmers didn’t mind, because in the summer they would go down to the Fishermen’s Wharf, and walk up the jetty, and without being asked, the fisherman would hand him some fish and say here you go Mr...That was the way it was done. It helped the fishermen save face as they didn’t have to ask for a handout of vegetables when times were hard. It was just an unspoken understanding between them. [LID]

The merchants in the town likewise received fish as substitute payments for goods [HF], and similar practices were later identified at Lorne, where fishermen would exchange fish with local farmers to search for mushrooms in their fields (Hunt 1999:72). Although these symbiotic relationships appear to have predominantly favoured the fishermen, they also led to cross cutting ties of interdependence between these communities that could be called on in times of drought, poor fishing or other hardships. These practices also recognised the value of the fishers within the local economy and township, and further demonstrate a “social conscience” and “local sense of community”. As these kinds of relationships only develop over time within stable long term communities, this behaviour further highlight the divisions between notions of who is local, and who is transient (i.e. the military).

D) Social Relations between Lightkeepers and Pilots/ Fishermen

Tensions between pilots and lighthouse keepers were traced back to the initiation of the township, when the earliest lightkeeper, Thomas McClelland (himself a former pilot), was involved with a dispute with the Principle Pilot, George Tobin (Raison 1997:2). Some informants maintained that there was an underlying friction between these two groups at one time, which may have been the result of their former rank in previous professions:

The pilots here were master mariners, whereas the lighthouse service were blokes who served in the Royal Australian Navy, but usually not as officers. This could reflect why there may be a perceived inferiority of the lighthouse service to the pilots. Sometimes you would hear the exchanges over the radio, and blue words were exchanged when the port controllers [who were stationed at the lighthouses] were engaged in arguments with the pilots regarding ships’ admissions and courses into the port. [HH]

It is notable that town relations were again influenced by social hierarchy. However, these differences were not universally observed in the community. A former pilot [CSp] maintained that even though there was occasional friction between the two groups, this was usually the result of an individual pilot who “got carried away with their position”, and was not indicative of any general ill feeling. Others informants associated with the pilots [JP] commented that there was a very amicable relationship between the two groups in the 1940s, but that if there was any tension, then it may have related to delays in vessels coming down from Melbourne, which irritated the Port

Controllers at times. Based on the limited evidence at hand, it does not appear that there were any major problems between these services.

There were strong ties between the fishing community and the Lightkeepers, and this may have been associated with the fisher's joint connections to the Lighthouse Service as employees, both as assistant lightkeepers and in the lifeboat service, where the lightkeeper was in charge [GF; HH; LF; PF]. The lighthouse keepers sometimes also offered work to the fishers undertaking maintenance on houses, or ferrying mail [JG], and often helped feed the fishermen during destitute times [JM]. Fishers were also allowed to retrieve dead fish for bait directly after blasting operations in the Rip [HM], further suggesting that good relationships also existed between the Ports and Harbours personnel and the fishers.

E) Multiculturalism: Chinese and Other Ethnic Groups in the Community

There was a great influx of Chinese immigration during the gold rush years, with over 4000 immigrants from 1853 to 1854 alone. Concerned about ethnic imbalances in the colony, the government imposed a £10 poll tax on each Chinese emigrant and restricted their immigration quota in relation to each ship's tonnage (Day 1992:293). However, Chinese populations were incorporated into the community at Queenscliff and St Leonards by the 1860s (QS 10/4/1886; Kerr 1985:69; Wynd 1988:115), and at Edwards Point and The Springs by the 1880s, where they established fish curing businesses or market gardens respectively (QS 4/7/1896, 27/7/1912; [CS; GW; LID; PF]).

The Chinese appear to have been tolerated better in these communities than in other small townships around the state, and this may be attributable to the multi cultural society introduced by fishing into the community, where fishermen of all ethnic backgrounds worked side by side regardless of their origins.

The Chinese lived on the periphery of Queenscliff and St Leonards townships, which is consistent with their expected marginal social status within communities at those periods and the general hierarchical structure of the town. In Queenscliff, the Chinese community were located on the southern peninsula between Swan Island and Queenscliff called Chinaman's Point at the northernmost extremity of the fishing community on Beach St (Dod 1931:18; [CS; LF]; Anon. 1853 [updated 1864] plan), and at the western end of the settlement at the Springs where they operated a

market garden ([GW]). Market gardens were also located at the northern extremity of Swan Bay, and on Swan Island and Duck Island [PF; WN].

Chinese were often viewed with suspicion by those outside their industries:

There were Chinese market gardeners at the Springs. Nan and Bob said “Don’t go in the Chinaman’s place or they will skin and eat you”...Once mum and Auntie Nola got caught in the Chinaman’s yard stealing fruit, and the only way they got away was to hide in Nan’s well. They were terrified when they got out. The Chinese were close by here; I think it was in where the Beacon Resort is now that he had his house. Everyone tolerated the Chinese back then [pre-1950s], they were part of the community but everyone was either afraid or cautious of them because they were so different. [WN]

However, aspects of Chinese customs did permeate into the Queenscliff culture, particularly the maritime sector. Sculling of small boats with an oar on the transom was common amongst many Queenscliff fishermen, and may have been introduced by Chinese fishermen to their European counterparts in the 1860s (Kerr 1985:69; [CS; GW]).

The liminality of the Chinese communities around the Queenscliff and Swan Bay is significant, as it physically expressed an ideology of segregation that may have been expressed by both groups (European and Chinese). The marginalisation of Chinese groups to the extremities of the townships in the early days demonstrates the inherent social barriers raised to these communities, but also recognizes their essential inclusion in the community, as small populations were reliant on all members (and their specialist skills) despite their ethnic origins. Although accepted into the township outwardly, the Chinese were often marginalised within the community, which was often only evident subtle indicators such in the assignment of a discrete alien section in the local cemetery, and their common absence/omission from official and local documentary records. Furthermore, the continuation of these divisions demonstrates to some extent that both parties were probably content with this separation, and used these areas to maintain their own social space and boundaries, but also for their own territorial sense of place and belonging. Segregation of the Chinese would increase in the period from the 1900-1950s in line with the White Australia Policy (Foster 1986:2), an observation that is supported by accounts of intense suspicion and fear of this ethnic group during that period [WN]. The Chinese fishing community probably left the township when the new fish market was established at North Melbourne in 1900 (Evans 2003:111), probably as a result of improved access to market brought about by the train line, but also to be closer to the large Chinese community located there during this highly intimidating period [JG].

F) Social Divisions Based on Religion

The role of religion in social differentiation in the town was briefly investigated in this study. Although informants indicated that some early fishermen were pious and attended regular services in Queenscliff from Swan Bay and had strong affiliations with the Presbyterian Church [CA; DB], many townsfolk indicated that religion played a negligible role in the majority of fishers' lives [GW; LF]. By comparison, religious observance and worship was a large component of military life, where army personnel were required to attend at least one service a week at a church of their choice. Many Pilots and the majority of soldiers attended St George's Anglican Church (Tate 1982:147, 173; [CSp; PF]). The Presbyterian congregation also included some pilots, the middle class lightkeepers, shopkeepers and publicans.

Furthermore, there also appears to have been tension between the different denominations within the town:

There were bitter division between the Catholic and Protestant Churches in the community at one time. During the 1920s, Catholics would not enter Protestant Churches, and would stand outside during funerals. My mum was bitter against Catholics. There was a definite divide between the Catholics and Protestants. It was pretty strong in the 1920s. [CA]

It is possible that this observation was related to The Troubles in Ireland, and might demonstrate the transportation of landscapes of animosity from overseas. The social differentiation between the various hierarchical groups may also be expressed through places of religious observance, as it appears that most of the elite attended St George's Church, whereas other social status groups attended one of the other four denominations in the town (Wesleyan, Methodist, Presbyterian, and Catholic).

Although religion does appear to have affected local relationships, the extent of its role in shaping the social structure of the town was not clear, and hence was not investigated further during this study. Many informants either indicated that religion was irrelevant, or did not wish to convey their beliefs during interviews. However, others indicated that religion was a critical factor because it was one of the determinants of social cohesion in isolated nineteenth century communities [JG], and hence this avenue presents yet another direction for potential landscape research.

5) External Relationships

A) Social Relations between Residents and Tourists

While it was not possible to consider tourism landscapes within the main body of the thesis, a full analysis is provided in Appendix D. However, tourists provided a consistent and powerful external agent in the operation of the town, and in the construction of its relations between groups. The large annual influx of tourists over summer was an essential component of Queenscliff economy, and provided financial opportunities that were eagerly exploited by many of the town's permanent residents. Fishermen would often make extra money by selling cheap fresh fish directly from the pier to tourists just before their steamer left to return to Melbourne, a practice was reciprocally appreciated by both sides [HM; PF]. Children also sold recreational catches for extra pocket money (Ferrier 1989: 17, 1991:2; [CS]). As early as the 1860's, fisher women were frequently engaged in manufacturing trinkets and souvenirs for tourists from shells and other flotsam and jetsam (Dod 1931:25-6). Other souvenirs were hawked by children, including nautilus shells, and even seagulls which were trapped and sold as pets. The arrival of the excursion steamers often presented very profitable opportunities. Money was also made from the collection of empty beer and soft drink bottles from the Bay Steamers and their passengers (Ferrier 1989:18, 1991:2), a practice which was widespread in many other tourism towns (e.g. Lorne - Hunt 1999:10). Numerous townspeople often rented their houses out to tourists during the summer season ([CA; JG; JP]; QS 1/5/1886). Twentieth century fishermen especially were heavily reliant on this extra income to pay their annual council rates, and they would often move their entire families out of their main houses into smaller cottages or bungalows in the rear of their yards (Ferrier 1991:2; [HM; LID; WN]).

Although the tourists' income was welcome in the town, many residents resented their annual invasion: "They called the tourists "the thrip" [midge: an insect] as they both come in the summer and they are both annoying" [WN]. Later "day trip" tourists often exhibited socially unacceptable behaviour. Alcohol consumption was an important activity for the day tourist, and some were drunk by the time the boats arrived at Queenscliff, and/or overindulged in alcohol throughout the day. Police often had to confiscate alcohol as tourists disembarked, and the Esplanade Hotel (located close to the pier), regularly had record takings. Tourists were often so drunk that they fell into the water, or had to take the train home when they missed the return ferry (Ferrier 1989:17; [CA; CS]).

The proximity of the piers to the Fishermen's Flat and the fishers' popular drinking areas, forced an overlap between the fishing community and the tourists as they passed through on their way to the town. Many fishermen especially resented tourists' attitudes to them:

Everyday the Bay Boats would come in and bring Butchers and Grocers Picnics. There were dancers in pavilions and thousands at the pier. You would see all the people come ashore, and the snobs would have their noses in the air looking down at you as they went past. You would see the same people stagger back later in the day when the boat was due to leave, and we would go down to watch them and have a laugh near the park and the Esplanade [Hotel]. Prim and proper ladies with all the graces who had earlier looked down at us were sometimes so drunk that they were falling over in the gutters. [CS]

These scenes became a popular free source of amusement for many sectors of the community, who would often sit in the waiting sheds to watch inebriated tourists returning to the boats, who often did not appreciate the attention: "...it was the women too, you didn't look at them the wrong way or they would give you a mouth full, and didn't mind using their hat spikes either" [CA].

The Bay tourists were also popular with the young soldiers, who would often gather at the pier to inspect the incoming women and parade themselves as potential suitors:

It was quite the thing to go down to Queenscliff Pier to meet the boats and see them off, and the gunners used to sit like dicky birds in a row on the wall. (Whitelaw, cited in Tate 1982:155)

B) Social Ties to Pt Lonsdale and Other Districts

Some informants hinted that there was some social stratification between Queenscliff and nearby Pt Lonsdale, where several informants suggested that the latter viewed the former as working class [HH; MW]. This was a distinctive role reversal from the early days when Pt Lonsdale was equated with farming, and Queenscliff was associated with the Battery, but it should also be noted that the appeal of Pt Lonsdale had always been its genteel environment [JG]. These observations are probably linked to the evolution of Pt Lonsdale as a new higher status tourist destination, whose relative isolation enabled an escape from the inundations of the lower class tourists associated with the cheaper Bay Steamer traffic at Queenscliff, and it is notable that no hotel licence was ever issued for this area [JG].

The social connections with other townships such as Ballarat and Geelong were interwoven with Queenscliff society, as the inland residents often spent their summer holidays on the coast. Several local residents indicated the any historical study of Queenscliff would be incomplete without examining these inland towns and the development of their railways, as they were so strongly tied together, which dated back to the gold rush period [JG]. Many

joint sporting events (bowls, yachting) were organized that involved both towns [CA], and strong relationships were formed between the two communities that often involved seemingly unrelated events, including when the Ballarat Yacht Club took up a collection for the lifeboat crew after a particularly daring shipwreck rescue [HH]. Queenscliff was also an integral component of the landscapes of Western District farmers, who often retired by the seaside, and it is significant that a number of Pt Lonsdale land sales were conducted Ballarat [JG].

The football league also often involved competed with teams from across the other side of the bay, a match that was known as “the Battle of the Rip” when contesting the Sorrento team [GW; HM]. These forged relationships with those communities, each of which would often sail across to attend and watch games.

6) Landscapes of Resistance

A) Alternative Local Social Hierarchy Based on Ancestral Ties

A very strong sense of community identity and belonging was evident within Queenscliff, both in historical and contemporary periods. Many early reports in local newspapers were written as Reminiscences (Fanning 1893) or under pseudonyms (e.g. “The Native” 1887; “Old Salt” 1890; “A Queenscliff Boy” 1912) which usually signified the degree of antiquity/localness of the writer through direct knowledge of historical events in the town. The majority of local informants revealed that community identity was strongly associated with ancestral ties to the area, and indicated that if your grandfather was not born in Queenscliff, you were not a “local” [JB; GW; HM; PF]. Numerous interviewees would preface conversations about various town identities with comments about their status as a local (or not), and when asked about their own history in the area, most would first relate back many generations of local familial ancestry. Several times when informants were asked about who to speak to or who I had spoken to in the town, they stated that although the person concerned had been in Queenscliff for some time (in some cases up to 80 years), they were not locals, which often implied that their community identity, and hence their reliability as an historical source for the area was questionable. This phenomenon was possibly partly associated with the constantly changing army residents in the community, which, along with the perpetual tide of tourists frequenting the town, caused a strong sense of territoriality amongst the permanent (and seasonally semi-permanent) local populace, who distinguished themselves from the temporary residents and visitors.

The fishing community was particularly marginalised as outsiders, since their first appearance into the town by the early 1860s. Housing rights associated with the fishing licences led to the establishment of a fringe fishing community built on the low lying extremities of the town in what had previously been considered unusable land (The Fishermen's Flat). However, the segregation from the rest of the town, both geographically and socially, was sorely felt by this sub-community. When they were denied local council voting rights (due to their lack of free-hold land status), the fishermen staged a successful strike in 1869 which led to reinstitution of their ballot rights and representation on the local council (QS 10/8/1907). Fishermen fiercely guarded their allocated residential areas on the Flat, and petitioned parliament in 1907 when their sole occupancy privileges to the Crown land were threatened (QS 2/11/1907). Clearly, the fishing community were initially seen as lower class intruders to the town.

The ambiguous character of the fishing domain also contributed to the social separateness of other fishing communities elsewhere (Minnegal et al. 2003:64). Because the very nature of fishing was dangerous and often mysterious/secretive, it was not fully understood by mainstream society, and was often romanticised. The traditional values of fishers often lay outside the mainstream norms, and in this way they resembled other marginalised and semi-sedentary groups such as Gypsies and desert nomads. This was particularly evident in their tendency to illegally exploit shipwrecks and other fisheries resources whenever the opportunities arose, particularly in the nineteenth century.

However, tourists and the defence personnel were transient populations, and eventually the fishing, business, pilots, and farming communities and other permanent residents developed working and personal relationships which spanned the status quo of normal hierarchical systems. The continual and changing influx of tourists and military personnel, who did not often understand the complex social inter-relationships and accommodations that had developed within the township, were sometimes resented, as the outsider groups sought to assert their cultural values and practices over the local population.

Over time the permanent population of the township developed a shared identity that distinguished them in opposition to the outsiders (primarily the defence forces and tourists). The ability to identify oneself as a true "*Cliffie*" through demonstrated lengthy ancestral lineage, long term residency, and an understanding of and access to associated local historical knowledge of significant places and lore, placed greater societal value on local community identity (and therefore belonging) than on the previously dominant class system. This mechanism increased one's local

status, bonded/reinforced relationships that cross cut normally disparate sectors of the local community and provided an alternative stratum for social differentiation that transgressed/overshadowed the mainstream social hierarchy normally imposed by the town's intruders. It is notable that all these aspects impact on spatial arrangement and landscape of the township, a factor that will be discussed further below.

Significantly, in this system greater value appears to have been placed on cognitive knowledge (e.g. lore, ancestral oral histories and toponymy) than actual physical demonstrations of ancestral presence (e.g. Forts and Hotels), an observation which further seems to have isolated the "outsiders", who inherently relied on large and abundant tangible physical remains to demonstrate their belonging to place.

Surprisingly, even the temporary defence residents saw the tourists as intruders, and were united with the local population in their opposition to them. It is also clear that the army sorely felt their exclusion from being identified as locals. Consequently, the large number of memorials dedicated to naval forces that are located at Shortlands Bluff carpark might be viewed as attempts by this external group (i.e. the military) to establish their own long term enduring ties to the township, through the memorialisation of members of their own "brotherhood". Several researchers have recognised the importance of memorials in anchoring landscape attachment to tangible physical places (Auster 1997; Gough 2000; Gibbs 2005). The installation of the first plaque for the victims of the *HMAS Goorangi* sparked a proliferation of memorials in this area, which now accommodates 10 dedications to the military, The Pilots and Lifeboat Services, and Merchant Navy. The memorials therefore represent a symbolic focus for sites that are hidden underwater, and may serve dual roles as both reinforcements of ancestral cultural identity of various specialist groups within the community, and as territorial markers to strangers that signify the community's ownership of place and their identification as a maritime society. The clustering of memorials in this area further demonstrates the contested nature of this landscape, where each maritime group is vying to prove its own ancestral claims to this region. Further discussion of memorials in the Queenscliff landscape is addressed in Appendix G-1.

Furthermore, ancestral attachment to place was also a factor in the collection of local artefacts, where one (fishing family) diver reiterated that part of the attraction of collecting seabed relics was their possible relationship to/use by past ancestors, a factor that also led to the fishing community to contest removal of significant painted panels from the South Channel Pile Light to Melbourne [PF].

It is apparent that many residents harbour personal attachments to the town's heritage, due to its connections to their ancestral or long term identity or personal history. There is still an active interest in heritage preservation in the town, and local residents are regularly involved in attempts to save threatened heritage sites (e.g. Queenscliff Harbour Development, Crows Nest Development etc), and for the return of removed historic artefacts and relics (e.g. South Channel Light paintings). These memorials and significant heritage sites provide tangible physical expressions of ancestral belonging to which local residents can anchor their communal identity through toponymic knowledge and local oral histories.

B) Two Faces of the Fishing Community

I) External United Front: Egalitarianism and Fishing Community Identity

The fiercely egalitarian nature of small maritime (often fishing) communities, whose resistance to any imposed authority frequently led to uneasy relationships with governing bodies, has been noted by numerous researchers (e.g. Goldsmith Carter 1945:15; Wright 1992; Westerdahl 2003b:19). These communities were often noted as “free rovers of the sea, men who never call any one master” (Treanor 1904: 69), and were classic examples of egalitarian culture where dominance and status were contextual and negotiable, and are based upon personal qualities, age and gender, (Seymour Smith 1986:268). The maritime community of Queenscliff originally appeared (to outsiders) to have been no exception to this rule.

Despite the ancestral union shared with other permanent members of the township, the fishing community placed further credence on one's identity as a fisher, which was used to present a united front in opposition to the others. The Queenscliff fishing community of the mid-to late nineteenth century was an anomaly amongst other contemporary sections of the Victorian community, as it appears that individuals of diverse ethnic and indigenous origins (who would otherwise be isolated and even ostracized amongst the general population) appeared to have been openly accepted as equals within this sub community. This occurrence is perhaps best explained by the gathering of many low ranking members of society into a common sub-class, where a form of (what externally appeared to be) egalitarianism was practiced as a means of rejecting the social hierarchy enforced by the other cultural ranks: “The fishermen were a clan of their own...they didn't care if they were the bottom of the rung, they couldn't care less” [JM].

In the boom years the economic success of the fishing industry also acted as cohesive factor within this community, whose industry was of some significance and operated somewhat independently of the township (in some aspects). Fishers were effectively independent businessmen, who eventually formed a union under which they organized fish distribution. These unions bonded this group in a common cause and further solidified their identity. The existence of the informal fishing etiquette related to snapper catches, and the imposition of fishing quotas further portrayed an egalitarian society where all fishermen were given equal opportunity, and where status was based on personal experience and ability.

Queenscliff fishers further drew on their specialised maritime knowledge and skills of the local area to distinguish themselves as the “native” European mariners of this region, which they further used as an internal social status mechanism. It became apparent in many interviews that the fishing community conceived of itself as the “native” mariners for this area. The establishment of this conceptual ancestral “indigenous” European Queenscliff fishing community, with its own technical skills, lore, superstition; and inherited social ancestral knowledge (all of which were dependent on detailed accrued knowledge of place), reflected the need of certain community members to cement their own distinctive sense of identity and belonging within an alternative egalitarian social system that operated in opposition to the predominant social hierarchy and class system that was imposed on them. This practice may also reflect a trend that was well established in the United Kingdom since early times, where skilled craftsmen and animal handlers (who were often considered to be the poorer and lower class members of society) formed trade guilds where a member’s specialised technical and ancestral knowledge ensured that they were part of an exclusive “in-group” or society (e.g. the Horseman’s Society, blacksmiths, or the Freemasons (see Evans 1966).

Minnegal (et al. 2003:58-61) noted that although a familial background within the Victorian fishing industry was important, fishers without ancestral ties to the industry but who could demonstrate the above knowledge and had served their apprenticeship as “deckies” (deckhands) were accepted into the fishing community. The central component of the fishing community was not tied solely to blood relationships, but to joint lifestyle and culture that was a “brotherhood” or “ethnic clan” of workers who faced the same daily life-threatening situations and would risk their lives for each other. In this aspect, Queenscliff fishermen strongly resembled initiated men, who, by trial and experience had earned their membership as men in their respective communities. This notion of traditional identity derived from shared engagement in a common endeavour and environment led to the distinction of Queenscliff fishermen as a separate society within the local community, that

also presented a powerful political lever that was often exploited to further their own causes (e.g. the Fishermen's Strike), and which again has parallels to the Masonic and other Lodge Orders.

Studies of other modern Victorian coastal fishing communities have observed similar behaviour, where cultural communal identity was inextricably linked to performance, which was based on one's ability to demonstrate practical "hands on" experience, and was not tied to one's social status, wealth or familial origins. Through the exhibition of knowledge of traditional fishing skills, associated folklore and history, local environmental conditions, and the geography of fish species, individuals could claim membership of the fishing community as fishers (Minnegal et al. 2003:54). This was a common trait amongst maritime communities, which usually establish their identity in opposition to the others, who are usually referred to as landlubbers (Westerdahl 2003b:18). Contemporary Victorian fishers still draw on these props of tradition to validate their identity as a cultural community whenever their profession and lifestyle is under threat. This connection to place often bordered on the spiritual in nature (Minnegal et al. 2003:68), an observation that was repeated by at least one fisherman:

Look at the wind, look at the things you can touch and feel, look at the tides and who controls the tides, its controlled by the Lord! [LF]

All the local fishermen denied the existence of individual territorial or informally owned fishing areas (which are known to exist in indigenous maritime cultures elsewhere). A daily race to be the first fisherman back to the pier demonstrated the importance of individual achievement within the fishing subculture:

The fishermen had a race to get the catch home first. The first man to get in put on a white jumper, to signify that he was the first man home. It was a real status symbol amongst the fishermen. [JM]

Equal opportunity defined the community, and breaches of this informal code were frowned upon, especially where any advantage was exploited over the other fishermen (such as the traveling fish hawking business [LID] - see Chapter Six). The fishing community especially were known for their willingness to risk their lives for each other in times of peril and philanthropically support bereaved fisher families [JM]. Even in a frequently destitute community, collections were often substantial (QS 22/10/1892), and sometimes provided the fishermen's widow with a new residence [JM]. This trend is reflected by the old practice within the community of establishing a collection for the families of drowned seamen, and may be a form of communal reciprocity and/or insurance for mariners who daily faced similar fates.

II) Internal: Brotherhood or Factional Community

The projected appearance (to outsiders) of a united fishing front may tell us more about current society than previous landscapes. It is likely that the fishermen's solidarity was exploited by those members who did not conform to general society (and therefore belong) whenever it suited them, but that in reality there was a probable hierarchy within the fishing community itself, and it was not egalitarian as had been portrayed. One aspect of this has already been presented in Chapter Six, where a type of initiation was used to distinguish fishermen from boys who went fishing.

Few examples of this disparity between fishermen were identified during the study. Observations have already been presented in Chapter Six in regards to the line-up rule when snapper fishing [PF] and the Shear Blade Fight. Other accounts revealed more discrete displays of disagreements between fishermen:

Cray fish were kept in coffs [large wooden underwater storage crates] in the harbour to sell. You didn't pull up anyone else's coff or craypots. You didn't want to upset the local fishermen, and if you were caught or suspected of doing this, in the middle of the night, someone would row out to your coff with a bucket full of boiling water from the copper, and dump it on top of your crays, and the temperature difference was enough to kill all the crays in the coff. [LID]

Another informant elaborated that the solidarity of the fishermen sometimes masked underlying tensions:

The fishermen were not a brotherhood you know. They sometimes cut each others nets, or thought that someone had if they found them damaged. Although they talk of a brotherhood, and it was definitely there if someone was in the water and had to be got out and they would give their lives to save lives, but on the other hand if they had any differences, they were often petty and sometimes likely to be long lasting and passed on from father to son... Their relationships were not as loving as you might think, they were not always bosom buddies. People sometimes had jealousies of their fellow fishermen. [nw]

Fishermen were also sometimes guarded about revealing their fishing secrets to other fishermen:

One bloke told me his uncle had showed him how to fish a certain [snapper] reef, there were ways of getting your line closer to the reef to fish it, but told him never to tell anyone how he did it. [JP]

Similar behaviour has already been shown in Chapter Six in regards to crayfish locations [GW].

One fisher even alluded that the couta boat race home centred as much around gaining economic advantage, as egalitarian prestige, as it bypassed the restrictions of the fishermen's cooperative and

the taxman, and allowed the winner who had taken more than his quota to sell the excess catch before the other fishermen arrived back [HM].

Furthermore, Chinese fishers may not have been as fully assimilated into the fishing community as first seemed:

There were families of Chinese on the Flats near Swan Island. There was once a seine net fisherman, who had a Chinaman with him. He told the Chinaman to pull in the net, but when he pulled the net, he ripped it on the bottom. The fisherman yelled out “How’s it going you heathen bastard” and the Chinaman replied “Plenty bloody rope but no net”. [CS]

These comments hint that the Chinese were still considered racially distinct from the rest of the community, and bring into question the reality of true multiculturalism and/or egalitarianism in the fishing community. It is therefore likely that ethnic, social and hierarchical tensions did arise within the fishing community, but that they were not publicly displayed by the fishers who presented themselves as a united front that is embodied by the current fishing community. Through the demonstration of solidarity, the fishing community retained an identity and culture that was closed to those outside of it. These observations suggested that there was a dual aspect of fishing community landscapes, where they were at once united (to those outside their community), but also (at times) internally fragmentary, sub-divided and/or individualistic in nature. Membership to the fishing community was based on two tiers of knowledge existed that established community and individual landscapes. The first level was based on general understandings of the type of knowledge related to fishing that indicated one’s membership of the fishing community, with a second layer of specific knowledge which was used competitively within the community to establish individual identity and status. The latter is difficult to see archaeologically; the former is recoverable at least in part.

7) Archaeological, Physical and Cognitive Indicators of Communal and Territorial Landscapes

A) Differential Territorial Landscapes

Queenscliff presented an unusual situation amongst the normal Victorian society. In Melbourne and other major centres throughout the state, the social classes were spread out into distinctive areas, and predominantly did not mix except where necessary, whereas in Queenscliff, all classes of society were squeezed into a small geographic area (under 2 miles square), and everyone was forced

to mix regardless of their social status. Furthermore, unlike many other country towns, Queenscliff's population consisted of the full range of the social strata, from the Colony's Governor and social elite through to fringe dwellers [JG; MW]). However, despite the constricted geographical space, the social divisions within the community led to distinct territorial areas within the town:

The top part of the town was the rich part of town. They had their own wells. This house was once a pilot's house, and has its own well (under the floor of the kitchen). Fishermen had to live down on the flat, and they got their water from the rooves or had to buy it. If you lived on the fishermen's flat, that was the poorer end of town, as it was leasehold. The upper section of town was freehold land. [PF]

The interaction of several key industries within the Queenscliff environment inevitably led to a social hierarchy within the town. Those in more prestigious industries (such as the Pilots Service and Defence forces) inevitably attained the socially highest status, whilst the fishermen were considered bottom of the social ladder, with a smattering of other services scattered in between.

The demographic distribution of the social classes of Queenscliff is clearly evident in the towns spatial arrangement, where social hierarchy (which was based predominantly around occupation) within the township is underscored by altitude. The town's elite tended to be topographically located at higher elevations, with social status decreasing correspondingly with location further down the slope (Figure 8.2). A large accumulation of military and high social status members of society are clustered around the elevated physical sections of the town, especially around Shortlands Bluff. The entrance to the town is guarded both at land and sea by a sequence of military establishments (Queenscliff and Crows Nest Forts), the former of which stands on the highest cliff face of the town. Various Governmental service accommodation and cottages of the Pilots Service, Customs and Health Officers (along Gellibrand, King and Hesse Streets known as Pilots Row) are located lower on the slopes nearby. Further down the hill is a Presbyterian Church district, adjacent to the merchants and tourism facilities of the central township of Hesse Street. Situated at the bottom of the hill (on former swampland) is the Fishermen's Flat. Houses in this area are substantially smaller than the large and often grandiose residences situated further up the hill, demonstrating a distinct physical division between the social hierarchies between areas. Many of these divisions have been used for formal classification of heritage areas in the Queenscliff Conservation Study (Allom Lovell 1984). Several minority groups were further socially separated on Chinaman's Point ([LID]; Anon. 1853 [updated 1864] plan; Gee 1971:5), and there was once a fringe community of "down and outs, Chinese and foreign fishermen" and Indigenous peoples located on Goat and Swan Islands [JM; MW]. The location of other small Chinese settlements on

the periphery of Queenscliff at the Springs and Edwards Point further points to social marginalisation of these ethnic communities. Socially marginal community members who were considered too rough or uncouth for the community were sometimes stationed at Duck and Mud Islands (Dod 1934:29; [nw]).

Social differentiation was also repeated when lower class tourists started visiting the township (see Appendix D-1). Visitors of lower status usually could only afford cheaper rentals, which were located at the bottom end of the town, which again reinforced the status quo of the social hierarchy.

This physical hierarchical representation is also recognisable in the spatial placement of the various churches around the township, where the Anglican St George's Church (the favoured church of the elite) was located on the highest peak in the township (at Swan Hill) overlooking Swan and Port Phillip Bays, which was also the vicinity of the early hut built by Governor LaTrobe in the 1840s). Not only is it higher than all other churches subsequently built in the area (usually Catholic Churches claim this honour), but its position is also the most visible for maritime and terrestrial traffic in most directions, a feature that Parker (1999) has recognized as symbolically significant for guiding parishioners in both earthly and spiritual travels. The display of Pilots' nautical running light signal at the church's entrance reinforces this observation, as a mark of the church's comparable role of guiding souls through troubled waters.

Territoriality was also noted within the Pilots Service which still maintains its own private pier, even though its launches are moored at the Fishermen's Harbour approximately 500 m away. When a pilot is due to board a vessel, the pilot boat crew board the launch at the harbour, but still collect the pilot from the pier, despite the close proximity of the pilots' base/residence to the harbour. Although a practical explanation lay in use of the pier to load stores for the Pilots' cruising vessels and to hang backup tender boats for immediate deployment [JP], another informant [nw] suggested that this demonstrated the inherent elitist attitudes of, and social divisions between the pilots and the general maritime community. The social disparities between the maritime industries were further demonstrated by the incidence of two major boat building yards (fishers and pilots) in the same town at separate locations.

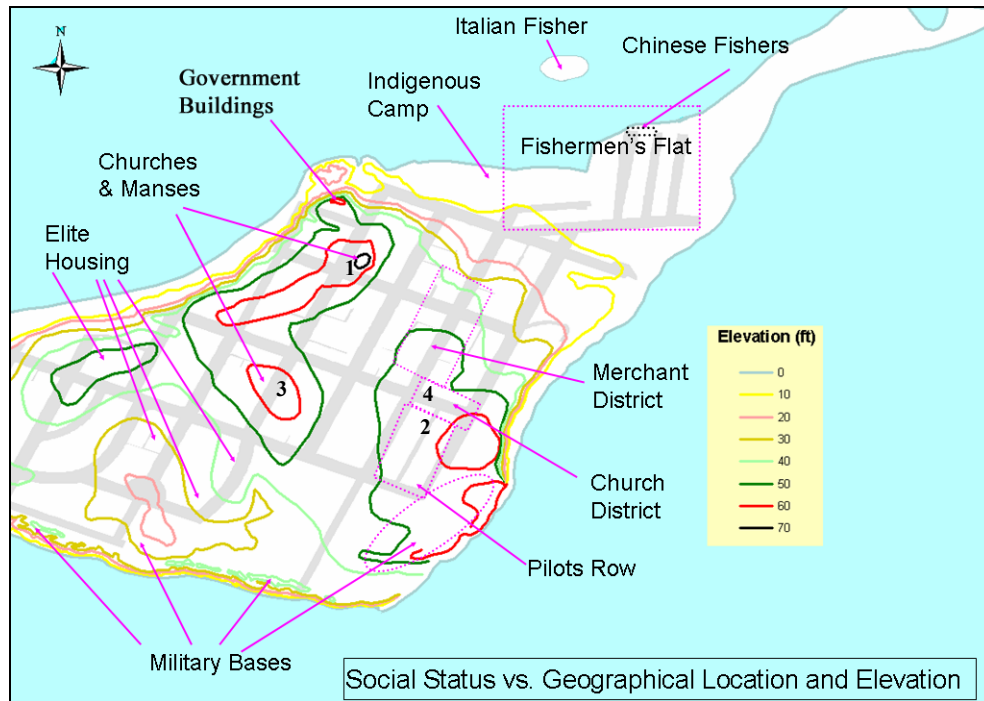


Figure 8. 2: Social status demonstrated by elevation In Queenscliff. Note: background outline is of the 1884 historic coastline of Queenscliff. Installation of Churches/reserves as numbered: 1. Church Of England Reserve 1854; 2. Presbyterian Church 1861; 3. Roman Catholic Church 1867; Wesleyan Church 1868 and Methodist Church 1888.

Observation of the distribution patterns of these sub-communities revealed distinct territorial occupation areas that locals sub-groups recognised should not be crossed. When one informant moved into a house in the Flats area in the recent past, an acquaintance with a army familial lineage questioned “Do you really want to live down there?” [nw], which implied that the area still had a stigma as an undesirable address. However, as one informant [nw] observed:

The fishermen on the Flat lived down there with a long lease as part of their fishing licences. It was a cheap lease and they lived close to work. We couldn’t have lived down there even if we had wanted to. That area was closed off to us.

This observation is significant, as it demonstrates a mutually exclusive boundary between the two extremities of the township in the nineteenth and early twentieth century, where both sides are excluded from the residential territory of the other, and is consistent with the data extracted for oral history interviews.

Although these disparities between the housing areas of different groups originally reflected the social differentiation within the township, over time these restrictions had obviously eased, but

the original physical partitioning of the various classes inspired by hierarchy continued to influence social relations (at least with children) in this time [1920s onwards]:

My father was a seaman with the pilots...I had a lot of time for the pilots. They were very worldly people and always treated us very well...We didn't see any difference between us [and the fishing children]. We all sat together in school, we played together. We didn't play with each other after school, but that was only because where we lived was in different directions. My brother had a lot of good friends from fishing families down on the flat. It may have been a generational thing, because by the time I came along we didn't see any of it. [JP]

Social hierarchy continues to play a role in the shaping of Queenscliff society, and is evident in the migration of socially elite areas to new locations. The elevated region of Fraser St (the road along the southern foreshore of Queenscliff fronting Lonsdale Bight) is now considered the elite area, due to its outstanding views of the Bay, but also for its relative isolation from the rest of the community [HH].

As has been previously demonstrated, definitive differences were also evident between housing types at the extremities of the town. The fishers lived in small timber cottages which were often unplumbed, whereas the more affluent citizens at the upper end of town resided in opulent stone and brick multiple roomed houses, often with their own water supply. Further architectural analysis of the housing and other buildings designs in Queenscliff are succinctly demonstrated in Allom Lovell (1984), and does not need further elaboration here.

The social and economic divisions within the town also often led to the separation of recreation areas. Many of the poorer members of the community could not afford (and were effectively denied) access to many of the social venues of the town, leading to the creation of duplicate recreational areas. This was markedly evident in the design/types of inns and public houses, where the modest (less luxuriously designed) hotels at the bottom end of the town (The Esplanade and Victoria Hotels) were used by the fishermen, whereas the higher social classes utilized the more opulent (and geographically higher) hotels (e.g. Vue Grand and Ozone). Similarly, in the early days the tourists and other higher status members would use the bath complexes on both sides of Shortlands Bluff, whereas poorer class children bathed in the shallow waters of the Swan Ponds area or on the beaches outside the enclosures. In later years, some town members also bathed on the former beach behind the Beach St houses, or in the enclosure formed between the tramway and foot access approaches to the Fishermen's Pier [LID]. The expense of the Hot Water Baths from the 1930s onwards effectively curtailed their use by all local fisher families, except the occasional football player [JM]. This further contributed to the differentiation of hierarchical areas within the

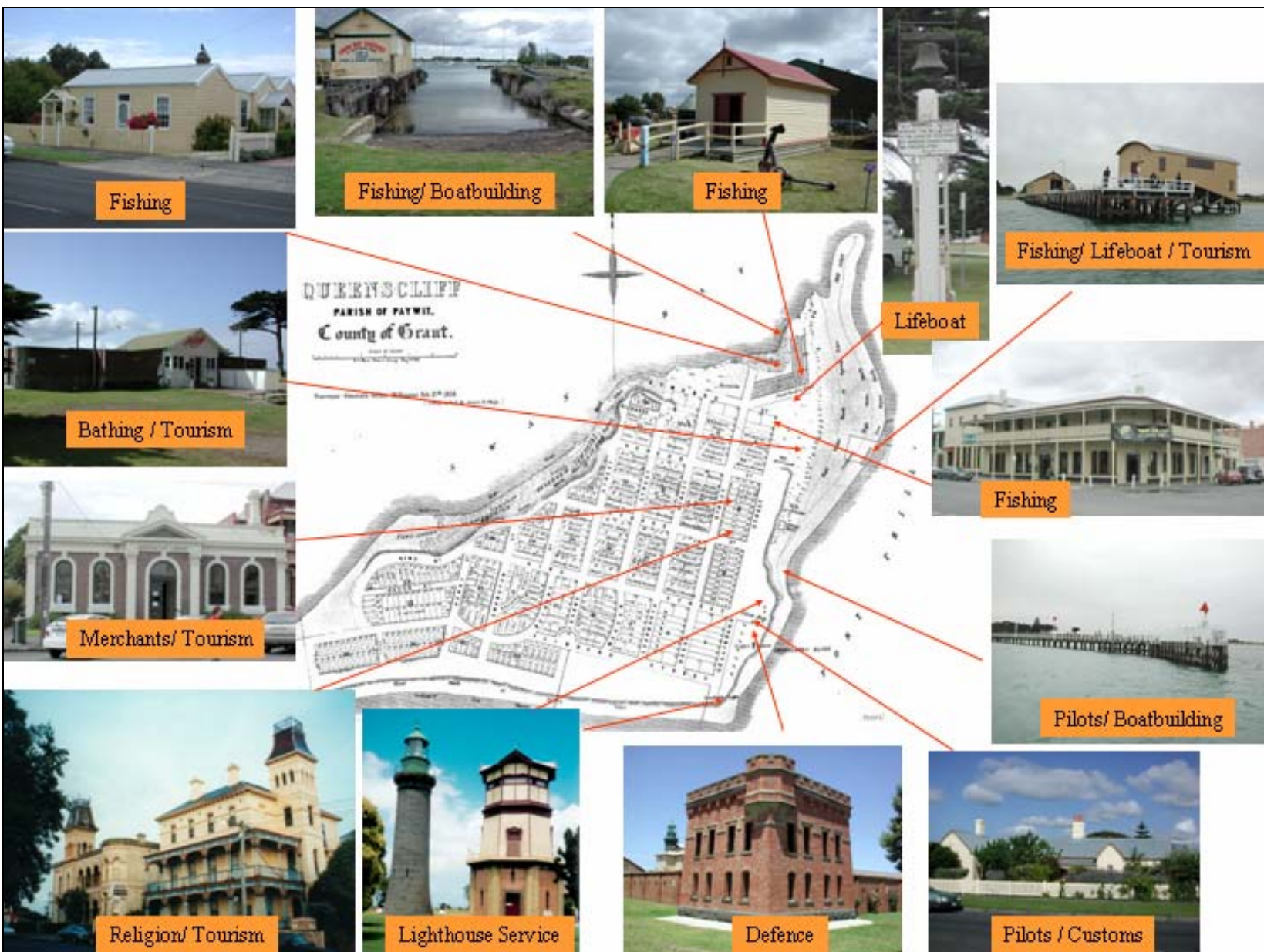


Figure 8. 3: The spatial distribution of thematic maritime industries at Queenscliff.

town, where the northern lower regions of the township were assigned lower social status.

Historical evidence suggested that the fishermen sorely felt the disparity in resources allocated to their areas. In 1893 (QS 27/5/1893), the fishing community petitioned the borough council for resources to be allocated to the construction of a sporting ground on swamp lands near the Fishermen's Flat, which they undertook to maintain via working bees after it was constructed. The letter ended with the following statement:

Here is an opportunity for great improvement if they will only let [the borough foreman] and his assistants spend a week at it. Why should all the improvements to the town be at the south [top] end of Queenscliff? Opposite Beach Street could easily be made into one of the beauty spots of the town.

It is also notable that due to their specialised exploitation of the environment and use of smaller vessels, fishers often used radically different routes to those utilised the majority of mariners, and included smaller channels both at the Heads and on the extensive sandbanks just inside the Bay. The use of these areas often led to the development of dedicated route markers and locality indicators, as demonstrated by the lead marks for the snapper patches. The vast disparities between travel networks utilised by fishermen and other seafarers was potently indicated through the dissimilar types of sailing instructions available for various specialized maritime groups (e.g. Burdwood 1855; Yule 1868; Emerson et al. 1897, Anon. n.d.), and through informal navigational information gleaned from oral history interviews. Analysis of artefacts identified in the many different channels within the Bay suggests generalized observations can be made concerning the origins of vessels using each route (e.g. whether local, intrastate, interstate or international - see Appendix D-4 Transport Zones). The route navigation systems used by each thematic group were reinforced with (often restricted) knowledge of distinctive toponymy (see Appendix G-2) and folklore (e.g. four fingers rule used by Pilots [CSp]; snapper patch locations), that further identified one's thematic affiliation and cultural identity. Furthermore, different groups often used their own unique anchorages, which initial indications suggest have also produced archaeological signatures distinctive to each sub-culture [DL; PF].

The expansion of some industries actually retarded the growth of others, the most pertinent example being the effects of defence reserves on development of tourism/ housing at Shortlands Bluff and Pt Lonsdale, and fishing and/or guano mining at the Mud Islands and Swan Island. This was especially evident in Queenscliff, where the only direction for the fishing community to expand was over swampland and onto offshore islands.

B) Social Space Division

Empty space was extensively used in the Queenscliff community as a tool of social differentiation and boundaries marking. This is most noticeable in the demarcation of the Fishermen's Flat from the rest of the town, where strips of parkland segregate the two areas. The empty space of both water and bushland was also used to distinguish living areas of lower status societal members such as the Chinese and Indigenous peoples who lived on the outskirts of Queenscliff, the neighbouring islands and Edwards Pt. Furthermore, the cleared areas around the fort are significant as they further differentiate the territorial boundaries of the military.

C) Power Landscapes: Empty Space as an Authoritative Cultural Commodity

Authoritative landscapes are imposed landscapes which structure or control the movement and use of those regions. The defence landscape demonstrated the most formidable authoritative landscape, but the Pilots, Navigation, Customs, Quarantine, Immigration and Postal Service landscapes also demonstrated landscapes of authority within the study area. The military's power is reflected not only in the physical presence of various defence installations, but also in the retardation of development of foreshore areas designated as coastal defence Fortification Reserves (e.g. Pt Lonsdale, Pt Nepean, Lonsdale Bight and Swan Island) whether they were eventually constructed or not.

Similar observations of significant spatial emptiness were made for every Quarantine area around the bay. Original quarantine facilities at Melbourne were physically isolated from the general populace, either in remote locations from the settlement or at anchorages. Furthermore, the removal of Quarantine services to Pt Nepean, where a large region was reserved to provide a physical and cognitive buffer between potential fever victims and the general populace, demonstrates the significance of the space required. The location of the station on the then sparsely populated Nepean Peninsula, is significant for its physical isolation by both land and sea, and reinforced the notion of the fever victim as temporary social outcast. In these cases the lack of development (or the space) between the facilities is as significant a component of the authoritative landscape, as the actual physical remains of those services.

The deliberate lack of high rise development on the eastern side of Shortlands Bluff is particularly significant to the navigational landscape of Port Phillip Bay, as it draws the navigator's attention to

the beacons on that point. The abundance of substantial historic high rise developments on the eastern side of the Bluff, would appear to support the observation that the empty space along the southern foreshore of Lonsdale Bight was a significant component of the navigational landscape of Port Phillip Bay. This observation has strong analogies observation of the importance of the vacant areas in the cultural landscape of Stonehenge (Bender's 1992:8) and other coastal monumental structures (see Jasinski 1999:16-7; Parker 1999:324, 332; Fowler and Cummings 2003), where the lack of development and open areas were used to highlight central landscape features.

Although the defence facilities of Port Phillip Bay have been strategically placed, they also have a symbolic aspect for all mariners entering the Heads. The prominent position of the exposed early guns and defences on the headlands overlooking the bay suggests that they were meant to be viewed from below, to give the imposing impression of landscape domination while maintaining a mystery of what lay behind them. They are designed to at once both instil confidence in the safety of the port for allies, and to remind potential foes that they enter the port under the Government's leave. This was also true of the entrance to Queenscliff and Pt Nepean, where terrestrial travellers were confronted with monumental symbolic reminders of the strength of the colony as the main road led directly past the forts. These imposing fortification works have strong analogies to Bender's (1992:6, 9) observations of henge monuments as power reinstatements, where the physicality of outer walls and moat visually reinforced the authoritative status quo, while denying access to the secretive world within. This observation could equally be applied to the Fishermen's Shed, but as a subversion of the normal power structures, as access to it was also restricted for the uninitiated and non-fishermen. Furthermore fishing knowledge was to some extent restricted to initiated fishermen, which was used as a power mechanism to control the younger generation. This form of control represents a more localised form of authoritative landscape.

The construction of the fort wall and ditch also physically symbolised social exclusionary barriers between the armed forces and civilian worlds, as they represented not only obstacles to potential foes, but also marked military territorial status areas which effectively segregated the townsfolk who formerly had previous access to those areas. The defence forces expansion at Shortland's Bluff saw the removal of early pilots dwellings (Philp 1856a, 1856b [plans]), the original lighthouse (Raison and Beavis 1998:10), the post and telegraph offices (Dod 1931:94-5), and the early football field (Anon. 1853 [updated 1864] plan) as Fort Queenscliff expanded (see Figure App D-1.37). This led to increased isolation of the army from the local townsfolk, especially when the permanent

military personnel were gradually phased in from 1882 until 1892 to replace former volunteer militia, a fact that was to effect future town relationships (O'Neill 1988:49; Perry 1973:43-9).

The installation of later submarine minefields and low profile fortifications introduced a psychological aspect to the warfare, which encouraged compliance to an ever present but often unseen authority, a pseudo "big brother" effect. This was supplemented with ranging warships and light armoured vessels, which further demonstrated the changing and dynamic aspect of those authorities to maintain control wherever it was needed. As previously discussed, stranding sites in the South Channel might be attributed to paranoid vessel captains venturing further to the channel's northern edge to avoid mines [PF]. This further demonstrates the military's authoritative landscape, where knowledge (of potentially dangerous defences and those who controlled them) was used as a power base to shape the use of the landscape.

The authoritarian military landscape still dominates the Queenscliff environment. Many areas are still subject to military restrictions (e.g. Fort Queenscliff), and previously accessible sections of Swan Island are now excluded to all but military and intelligence personnel. The military territoriality over Swan Island is also evident on the water, where a maritime exclusion zone is marked by buoys and signs (Figures 8.4 and 8.5). Even these zones are contentious, as locals have indicated the military is gradually increasing the size of the area, which is precluding access to previously popular fishing and diving locations (e.g. *J3 Submarine*).

Furthermore, many aspects of the exclusionary defence landscape were cognitive in nature. The military machine restricted access to knowledge not only to its physical sites and workplace methodologies, but also to its intelligence data and cultural rituals. These strategies were clearly used to define a cultural identity distinct from the general public, where one's ability to demonstrate belonging to the military brotherhood was based on differential access to restricted information. The rationing of this knowledge was used to further differentiate social status even within the defence forces itself, whereby specific secretive knowledge was increasingly limited to those of higher rank.



Figure 8. 4: Swan Island maritime exclusion zone marker buoy.



Figure 8. 5: Territoriality over naval waters at Swan Island.

D) Landscapes of Resistance: Physical Expressions

Westerdahl (2002a) has asserted that wherever power structures exist, there will also be landscapes of resistance. Many of these landscapes were evident within the study area, as has been shown in this and previous chapters. Resistance landscapes were clearly visible in the permanent residents' attempt to establishment of an alternative society to subvert the hierarchical structures imposed on them. Furthermore, the proven reliance of many of the Queenscliff community on shipwrecks as an economic resource demonstrates a blatant disregard for authority, which has also characterized many other smaller maritime communities worldwide (Westerdahl 2003:19). In particular, some members of the fishing community actively resisted attempts to assert authority over their migratory lifestyle. This was demonstrated by their involvement in wreck plundering, smuggling, tax avoidance and over-fishing; their continuing conflict with the soldiers; along with their scant regard and continual intrusions into the restricted areas associated with military and quarantine service. The potential physical signatures of these activities have already been discussed in Chapter Seven.

The fishermen, Chinese and Indigenous groups were often relegated to the boundaries of the society by those in authority. However, once they were legally ensconced into these areas, they adopted and fiercely defended them as their own territorial delineations, which were further used to highlight their difference and independence from those at the upper end of town. Many fishermen also demonstrated a territorial sense of ownership of the former Fishermen's Pier, Fishermen's Flat and the Swan Ponds area, but in particular of The Cut, which may stem from their direct involvement in its construction. This was particularly evident during recent redevelopment proposals for the Queenscliff Harbour, when outrage was expressed by many residents (particularly

past and former fishermen) that the resulting increased harbour fees would force many of the *couta* boats out of the harbour. Most of those interviewed expressly stated that it was the fishermen who had created The Cut that led to the harbour installation, and they were concerned that they might be excluded from the facility that existed in their area. The creation of The Cut by the fishers, not only indicates the economic success of the fishing industry at that time, but the action of the creation of The Cut further demonstrated the fishers' abilities (both physically and symbolically) to manipulate the natural environment in the same way as the government agencies, thereby empowering their own identity as a maritime clan. Furthermore, The Cut is a potential tangible demonstration of a resistance landscape, where an alternative harbour was created to circumvent the need to utilise the facilities of (and hence acquiesce to) the dominant local authority (in this case the defence force harbour at Swan Island).

Although the marginalisation of the local Chinese population to the periphery of the local society (see Figure 8.6) was probably a policy of segregation, it may also represent a resistance landscape, where the Chinese intentionally used the intervening space to provide a buffer that defined and maintained their cultural territorial space whilst resisting assimilation into the dominant culture. Evidence of Chinese occupation of the area has been found underwater in this area and along the eastern side of Swan Ponds, and includes Chinese rice and bean jars, tableware ceramics and earthenware water storage jars (Figures 8.7 and 8.8). There is also the possibility that other mechanisms influenced the design of Chinese residential locations, including cultural notions of their own territory and identification, and ideological practices such as *fengshui* (Teather and Chow 2000:312-7). It has not been within the scope of this study to explore the Chinese community in further detail, but it is probable that they had their own internal social and spiritual logic, as well as their own internal socioeconomic and hierarchical traditions which also affected the spatial patterning of their settlements within the township.

Resistance landscapes were not confined to local residents, as has been shown where military personnel were also engaged in looting activities, and less obvious sly drinking. It is clear that wherever authoritarian structures were imposed, various levels of resistance also arose on many different levels.

Several other potential resistance landscapes occurred on the periphery of the civilised township, and were shared by many diverse social groups. In particular, the Mud Islands, Duck Island and Edwards Point appear to have been used as escapes from the controlled authoritative landscapes of

the township. These sites were often visited by the town's youths to let off steam and undertake illegal activities and later as a place to grow drugs [GrW; LID]. In particular, the Mud Islands were frequented by fishermen to consume pilfered barrels of alcohol found floating in the bay [LF]. This area was used later in the twentieth century by youths, football clubs and younger tourists who took beer kegs to the island and engaged in underage drinking and other unsavoury behaviour [GR; JA; LID; LM] as they were beyond the restrictions of law and family. Bare knuckle prize boxing matches (which were banned in Melbourne) were organised at the island in the 1860s and other violent disputes were also settled here (GA 26/7/1867:3; Dod 1931:35, 89, 90). The islands were once inhabited by fishermen in the late nineteenth and early twentieth centuries, some of whom were known in Queenscliff for raucous behaviour. During interviews it was suggested that the isolation of the island was probably an appropriate place for some of those individuals and that sort of behaviour. The island was also popular for tourist picnics from the 1870s onwards (Beavis and Raison 1982:9; [CA; LF]), and by the late 1960s it was suggested that nude bathing and drunken orgies were being undertaken at the islands [GR]. Knowles (1997) recognised the importance of these types of places as male bonding areas, where men could let their hair down and indulge in what was normally considered antisocial behaviour, without the risk of hurting or offending other community members. It also appears that these were traditional areas for these practices, as demonstrated by the continuity of "barrel days" from the periods of shipwreck looting through to modern times.

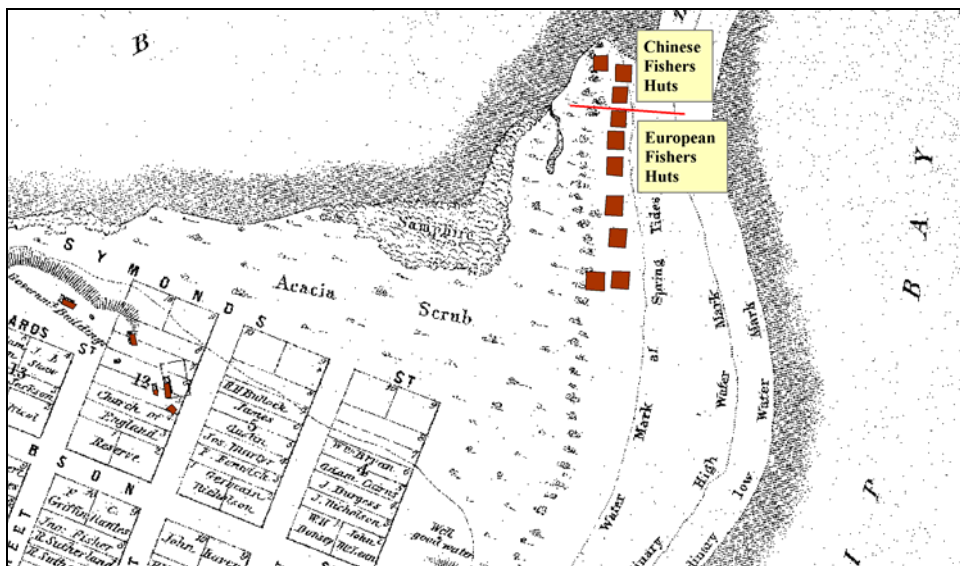


Figure 8. 6: Location of fisher' huts in 1864, showing the division between Chinese and European Fishers, and the rest of the township. (Note: Fishers huts in Anon 1853 plan are superimposed over Philp's 1856a plan).



Figure 8. 7: Chinese ceramics discovered in Swan Ponds (MM Collection).



Figure 8. 8: Chinese artefacts from Swan Ponds and Spit (QMM Collection).

E) The Wreck Bell: Relict Evidence of Lifeboat Service Relationships

At the beginning of this study, examination of the location of the wreck bell suggested that the site was ill-considered. It was situated in the town's northern extremity, far away from the centre and also what would seem the most obvious experienced seamen in the community (i.e. the Pilots, Customs and Health Boat crews). The location of the bell is pivotal in the understanding of the dynamics of the lifeboat crew in the township. It has been demonstrated in Chapter Seven that the fishers almost fully accounted for the crew of the lifeboat in later years. The prevailing weather associated with shipwrecks was predominantly from the south west or south east, which meant that if the bell was placed at the top end of town, then it would probably not be heard by those who needed to respond to it. The location of the bell therefore reflected the location of the lifeboat crew:

The wind would determine if you could hear the wreck bell. A phone was used by the lightkeeper to ring the coxswain, and he would get the crew together. The coxswain would go down to the lifeboat. The bell was located in this area as all the essential people lived there, the fishermen, and they were the ones who manned the boat. In the early days the health and customs boat crews formed the nucleus of the lifeboat crew, and the fishermen were later included. Later on the fishermen formed the foundation blocks of the lifeboat crew. [PF]

Examination of the structure of the township, and in particular, several extant features make more sense in light of ethnographic and oral history data. In times of shipwreck, the wreck bell (located on the town common near the Fishermen's Flat) would be rung to assemble the lifeboat crew, who were predominantly fishermen (Figure 8.9). Therefore, the bell was ideally located for the lifeboat crew.

The alarm bell was rung, and everyone would meet at the (lifeboat) shed...everyone could hear the bell in the fisherman's flat. [JB]

When viewed from the reverse perspective, these observations have significant meaning for the potential observance of social structuring of residential areas based on evidence from archaeological sites and extant structures in other areas where the historical record is lacking. The previous location of the original bell (now demolished) close to the High (black) lighthouse further informs of the involvement in the lighthouse service, (as the Lighthouse Keeper was always superintendent of the lifeboat of the lifeboat), but also hints at the location of the original lifeboat crews; the Health, Pilots and Customs Crews who lived in this area and on the beach below. When the Customs boat crews were removed in 1867, (and later the Health boat), the boat was predominantly crewed by fishermen. The bell was moved to the lower end of town, closer to those who formed the crew. Hence examination of the location of other wreck bells elsewhere may elucidate the thematic maritime identity of other former lifeboat crews and/or fishermen's areas, along with potential social areas in the landscape, and this observation has already been verified at Port Fairy.

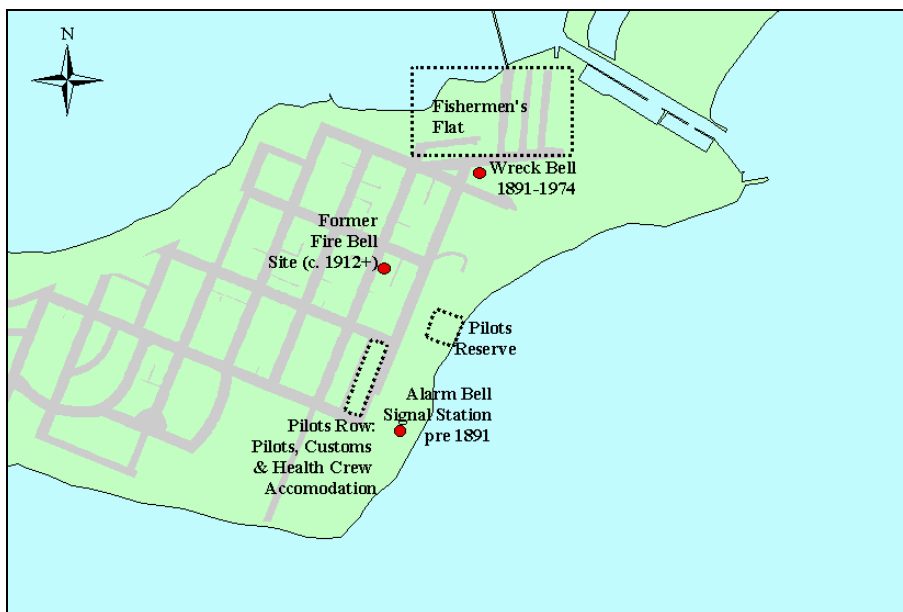


Figure 8. 9: Historical locations of alarm bells around lifeboat crews around Queenscliff.

F) Geomorphological/Environmental Evidence of Community Coastal Landscapes

Communal activities were also evident in other more subtle archaeological aspects, where the joint effects of individual group actions were evident in environmental landscape evolution. The blasting of the Rip and the Boat Channel, along with the South Channel Dredged Cut, individually represent significant archaeological evidence of maritime landscape exploitation which is often referred to as “natural landscape” changes. The combined modification of the marine and estuarine environments

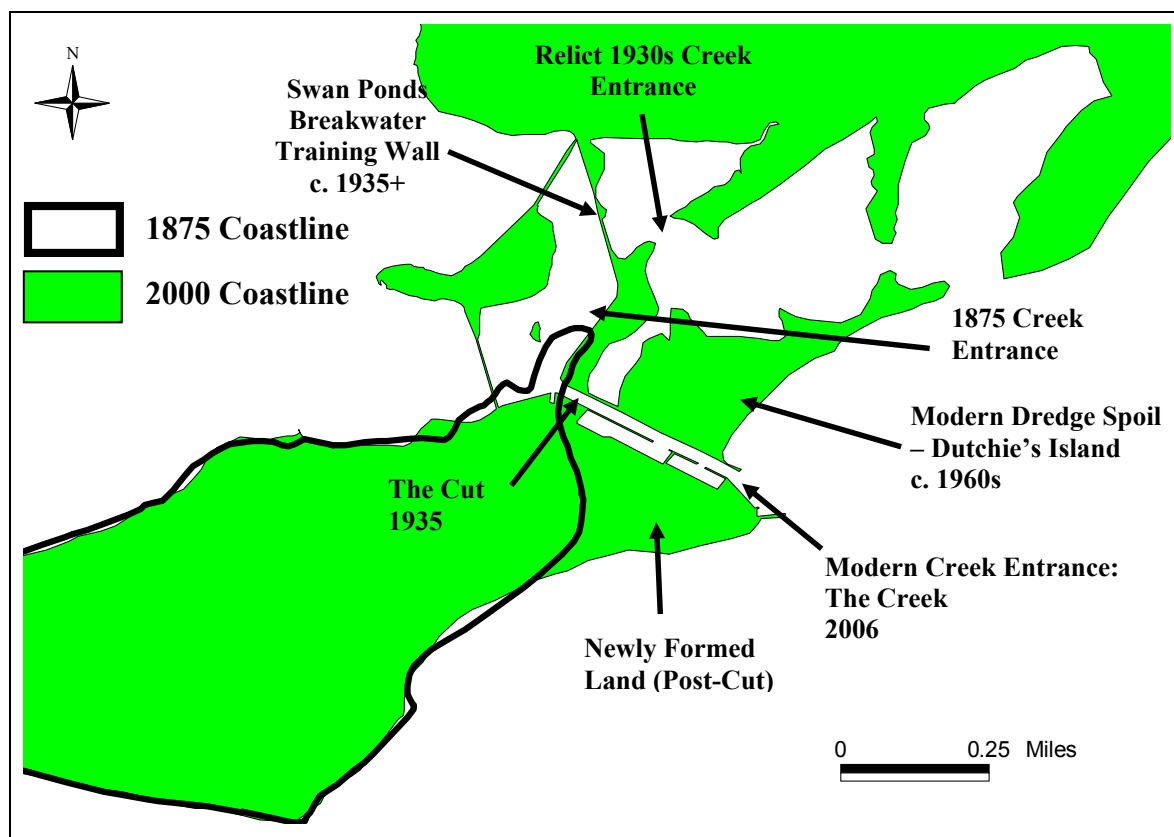


Figure 8. 10: Comparison of 1875 and 2000 coastlines derived from geo-referenced historic plan and modern aerial image.

by many different maritime thematic groups in this region produced general coastline changes which also represent tangible archaeological signatures of cultural activity. The local coastal dynamics of Port Phillip and Swan Bays were influenced by many artificial alterations and constructions (e.g. piers, bath, defence, bridge, breakwater and harbour construction; channel deepening and dredging; erosion control devices); extractive industries (sand and shell grit extraction; firewood and bark cutting; guano mining; farming); and the introduction of domestic animal species (rabbits and goats). The environmental effects of these activities (which are discussed in further depth in Appendix G-3) were potentially revealed through comparative analysis of spatial and temporal historic coastline change using cartographic sources (Figures 8.10 and 8.11), where it could be seen that as coastal shorelines altered (often as a result of the construction of maritime infrastructure, this in itself caused the extension and/or replacement of these same features with new maritime facilities. The environmental changes in themselves demonstrate powerful alternative tangible evidence (and sometime the only substantiation) of the presence of individual and/or combined maritime industries, particularly where the original structures that caused the change were subsequently removed. Therefore, the communal development and use of Queenscliff

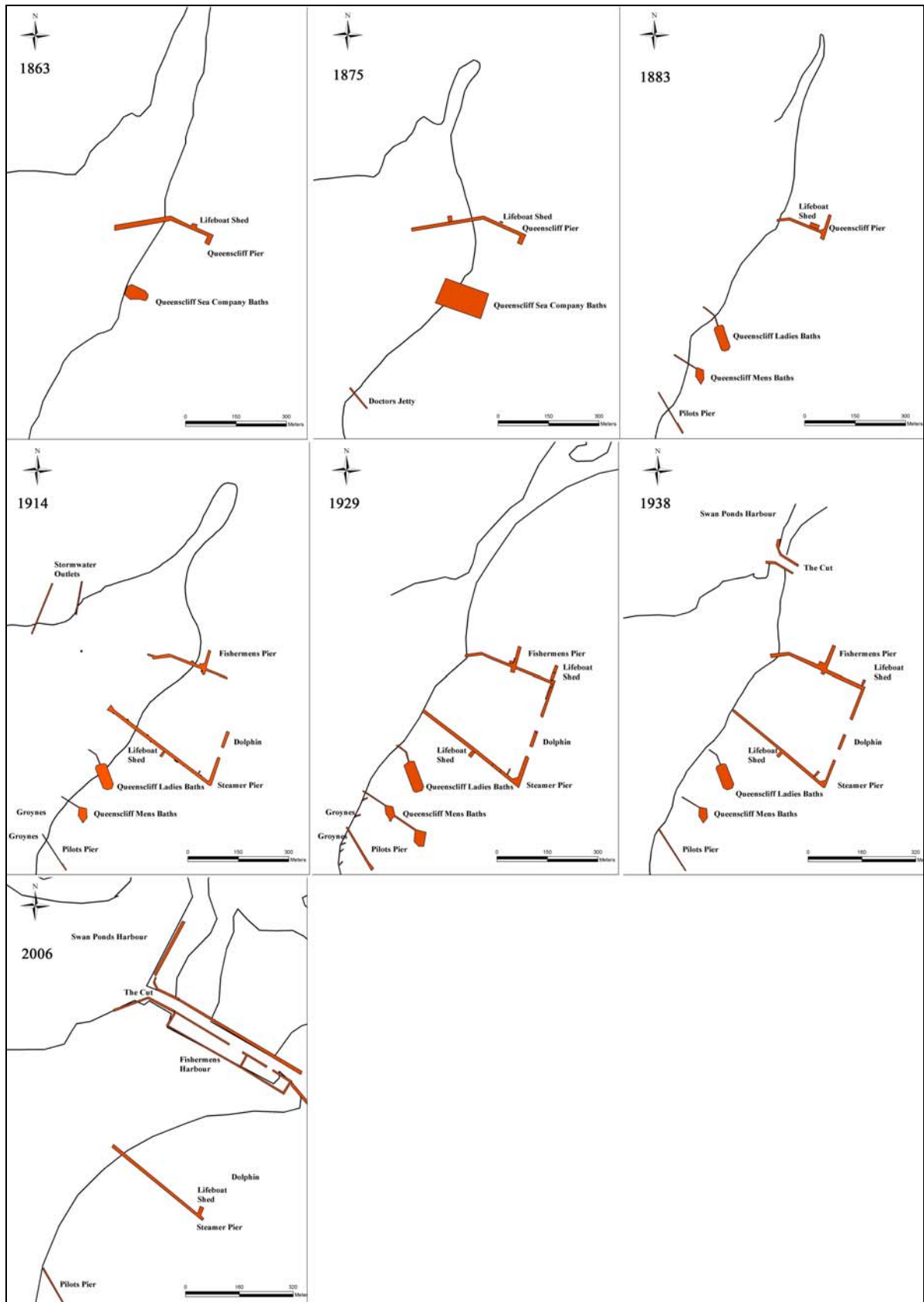


Figure 8. 11: Changes in the Queenscliff shoreline 1863-2006.

Harbour and the Rip can also be traced through the various environmental changes and other relict erosion control devices which have been installed in the area (see Figures 8.12- 8.14). These alterations in themselves represent potent archaeological signatures of past landscapes and historic landscape modification.



Figure 8. 12: View from Shortland's Bluff looking north, showing extent of foreshore progradation from relict seawall.



Figure 8. 13: Swan Ponds breakwater Causeway.



Figure 8. 14: Beachline progradation at Queenscliff Front Beach. Note the seawall on the right.

These observations also have relevance for the predictive modeling and relocation of archaeological sites, as this study concluded that some former underwater/intertidal sites are now located under prograded land (Figure 8.15) and some other past terrestrial sites (such as the Chinese Fisher Hut sites) were now underwater. This forecast was substantiated in 2005, when several sites that this author had been predicted would be found substantially intact were uncovered during redevelopment of the area, including the Fishermen's Pier which was found in a remarkable state of preservation (Figure 8.16). Artificially induced shoreline encroachment/erosion has also been

observed in several other areas statewide by the author (Duncan 2003a, 2003b, 2004a), and therefore clearly form a significant characterisation of community landscapes and are important for their subsequent identification. A summary table of archaeological signatures of communal landscapes is presented in Appendix G-4.

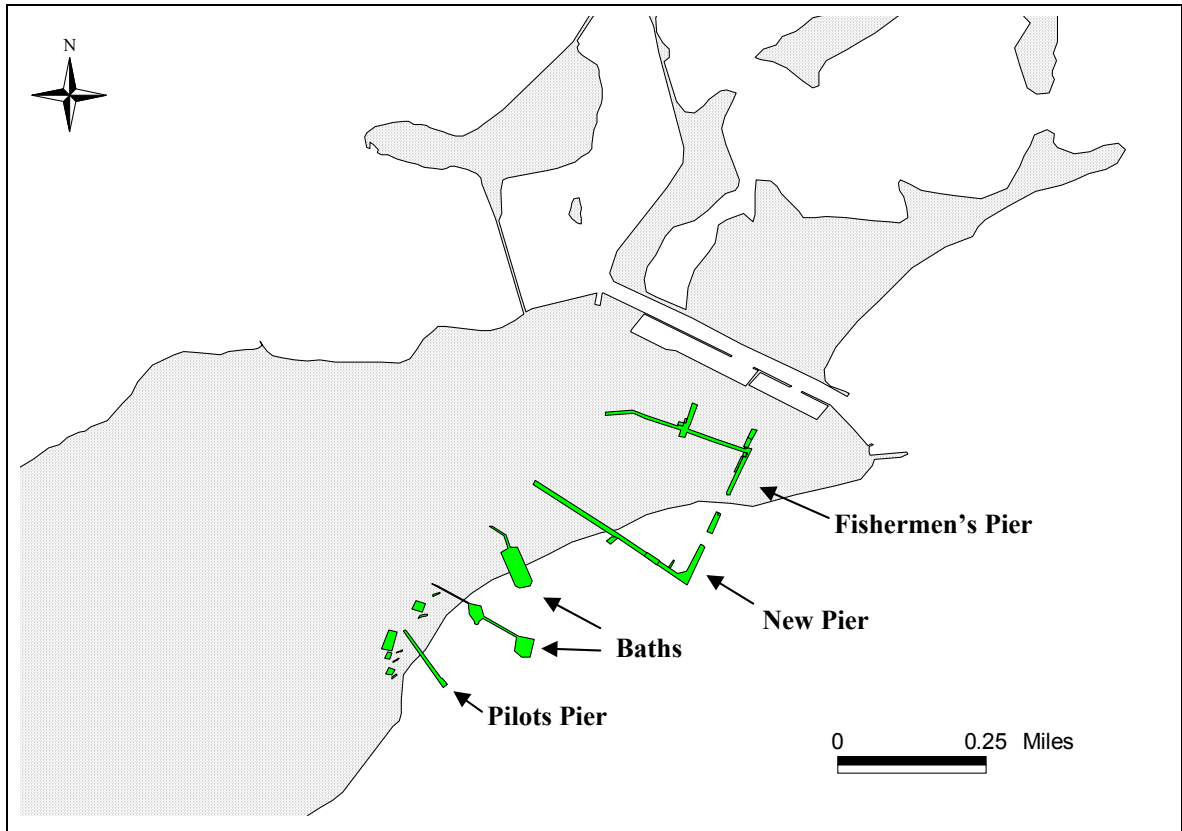


Figure 8. 15: The current location of 1929 maritime infrastructure sites shown against the modern. shoreline. Note the potential for archaeological sites buried under shoreline progradation



Figure 8. 16: Queenscliff Fishermen's Pier excavation 2005.

8) Mixed Feelings: Overlapping and/or Multivalent Landscapes

A) Terrestrial Landscape Areas

Even though social landscapes were delineated primarily by habitation linked to social status, it did not retard use of the others' areas by different maritime sub-groups. As has been demonstrated, fishermen did use defence areas (e.g. the Football Field), and the military and pilots often entered came to the Flat to buy fish or visit fisher women. Although different members of the community could cross the designated boundaries of the opposing individual communities, they were probably akin to the mariner ashore in a port, a stranger in a different world [DR]. Significantly, these observations demonstrate that these regions were the subject of multiple perceptions by many different parties. The examination of the diverse perceptive differences associated with individual landscape features presents an opportunity to investigate the multivalency of landscape construction. A number of key landscape places played active roles in many of the maritime themes addressed, but often held vastly different meanings to each individual group.

Fort Queenscliff was a central feature in the township. To the defence forces, the Fort represented home, a safe haven in a foreign land, bounded both physically and cognitively by its walls, moat, routines and rituals. The Fort was also a physical manifestation of their belief system in the absolute right of the government to rule. To the fishermen and some other members of the community, the Fort represented an intrusion into their territory, whose personnel restricted their movements, violated their women (and hence were a threat to their virility), and invaded their realm. Together with the Customs Depot, it was also a constant reminder of their domination by distant authorities (in Britain and later Melbourne) and of hierarchical societal restrictions imposed from afar. To the merchants however, the military represented a valuable income source and the Forts also symbolised economic opportunities. For the tourists, the Forts represented the physical manifestation of the safety of the colony and the power of the ruling authorities, their governance of all surrounds, and ability to control and manipulate the environment (e.g. Popes Eye and South Channel Forts). They also represented a mysterious curiosity, a dichotomy of war and peace set in a restful and at once boisterous environment (Figure 8.17).

Similar observations were made of the differing values of the Fishermen's Flat. The Flat represented home to fishermen, a place of rest and recreation (sometimes), and a haven of safety from the boisterous seas, but also the reimposition of authoritarian structures that regulated their lives (fisheries, police, customs, bills), domination by women (for some) and the resumption of

family responsibilities and poverty. For the military, the Flat was a dangerous place, a potential battleground that was to be avoided at one's peril, but also provided potential romantic opportunities and as such represented a strange mixture of possible pleasure and pain.

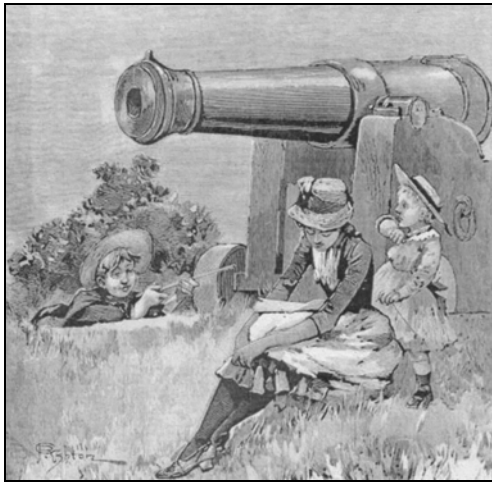


Figure 8. 17: “Peace and War – A Sketch of Queenscliff” (Sleaf, IAN 14/1/1888, SLV Collection).

The gradual mixing of the military and fishers landscapes through intermarriage of the two clans is significant, as it demonstrates the unexpected temporal dynamism of these landscapes and their overlap with others. A number of factors might explain this situation, which include the gradual easing of the rigid social hierarchy over time, attempts to ease communal animosity (on both sides), along with familial intermixing of the different classes. Given that the main positive interactions were predominantly between fishers and naval or sea based army personnel, it is possible that a respect based on the joint use of the sea acted as a bonding agent between these groups, a notion that did not apply to terrestrially based soldiers. Clearly both groups came from the opposite ends of societal hierarchy, and as such would normally not have mixed in a more spacious town setting, due to disparities in their education, social status and usual social circles. It is clear that the topographic setting of the township forced relationships that might not usually have taken place elsewhere, and that the loss of landscape through exclusion and encroachment from the military further exacerbated the situation. In this case the women could be seen as the facilitators of landscape change. The fact that female members of the fishing community did eventually marry military personnel (and disregarded the informal prohibition on fraternizing with the army), perhaps further strengthens the previous observation of the matriarchal nature of Queenscliff society and suggest that women played a greater role in shaping the structure of the township than was initially realised.

Several landscape features also had multiple meanings to different parties in the township. The Fishermen's Pier represented a liminal transit point for fishermen, as it separated their two worlds from the domestic stability and restrictions of their terrestrial domain, with the uncertainty and freedom of the sea. The pier was therefore a central hub of the fishing community, which juxtaposed and channeled activities between two very different physical worlds. Similarly, tourists viewed the piers as gateways between their two realms of responsibility and recklessness, but their respective arrivals and departures heralded the opposite meanings to those experienced by the fishermen.

For tourists, Queenscliff represented a seamless new world, full of oddities and challenges. It appears that many tourists were not aware of, or bounded by, the restrictions imposed on the rest of the town, and mingled freely wherever they chose. The often outrageous (drunken) behaviour of the tourists demonstrates that Queenscliff was for them also a temporary disengagement from the authoritative and hierarchical working environments, a liminal world where social responsibility and inhibition was shed on boarding the ferry, and reinstated on arrival from the return journey. Perhaps this is one reason why tourists were resented amongst some members of the local community, as they did not respect (and/or possibly recognise) the accepted physical class boundaries and behaviour that had been established in the town, but innocently pervaded into territorial areas without thought of consequence.

The Railway station was a key central component in the lifestyles of all the themes examined. It facilitated not only an expansion of the tourism market, but greatly assisted the development of the fishing industry. Despite the feelings of exclusivity expressed by many in the township in regards to the military, it should also be remembered that this piece of infrastructure (which was installed primarily to service the Military) played a key role in keeping what may otherwise have been a marginal coastal town going. Similarly, the Swan Island Tramway also facilitated a cross cutting relationship that aided fishers to access their stormy weather boat moorings. As such these sites demonstrate yet another unexpected inclusive practice associated with the defence forces.

As noted earlier, the Mud Islands were perceived as a place for letting go for many social groups, particularly the fishermen, football clubs and some tourists, as they were beyond the restrictions of law and family. These islands were important components of community landscapes as they galvanised relationships between many younger males through their role as a place of traditional male recreational customs and practices. However these and several other islands in the Bay were

problematic for authorities (such as customs and police), as they represented a lawless challenge which were predominantly inaccessible to them.

B) Marine Landscape Areas

The cognitive meaning of marine landscapes for many social groups often contrasted starkly to each other. For fishermen, the sea represented freedom, an escape from or to reality, and was an egalitarian world, where they were their own master, and their lives were depended on the extent of their own skills and experience. It also symbolised the pillar of opportunity, where armed with ancestral knowledge and skills, economic gains could be made from its many harvests (including fish and wrecks). The sea was also a place to be respected, where acquiescent behaviour based on prior knowledge of its natural cycles and moods offered a harmonious relationship. Fishermen worked with the sea on the whole, they did not try to change or fight it, even though at times some may have over exploited its resources. Generally, most fishermen were at home on the sea.

In contrast, the entire defence history of the Bay reflects the objective of the military to protect their flanks. The military saw the sea as an open gateway that could admit a foe, and therefore tried to bridge the gap. The network of defence structures around the bay epitomise a strategy to manipulate the environment to advantage, and correct natural holes in the physical defence landscape. This is particularly evident by the construction of artificial islands, blockships, and the channelling of shipping routes through the use of minefields. The defence network fought and sought to define the environment rather than work with it.

These two diametrically opposed viewpoints perhaps represent the biggest differences between the two maritime groups. Fishermen were dictated to by the sea, and changed their routine to suit it, whereas the military sought to control it. Fishermen drew on the sea's strengths and acquiesced to it where necessary, followed its natural rhythms and moods, whereas the military saw a weakness to be remedied. For fishermen the sea was a highway to prosperity and freedom, whereas for the military it was potentially the road to perdition.

To these two groups, and all the other working mariners in Queenscliff, the sea also represented a workplace. Conversely, from the tourists' perspective, the sea played a dual role as an escape route to the frontier of authority, and as a pleasure ground to cut loose from the mundane existence of everyday life.

C) Perceptions of The Rip

I) Local Community Perceptions

As there are many maritime cultural landscapes in any region, so too will they be founded on the cognitive perceptions of those who frequent an area. The Rip represented an obvious conglomeration of maritime perceptions for the study region, dependent on the perspective of the traveller. As the Heads region is a confluence of shipping from highly variable origins, it is also palimpsest of multiple overlapping landscapes, with both dynamic and intermingled perceptions of it that are experienced by many different user groups from multiple viewpoints.

It is ironic that the same healthy sea air which drew so many tourists has also accounted for so much ill health and disasters amongst those of the various maritime industries. The landscapes of shipping disasters have provided a very pertinent view of the dichotomies presented by an external event on a community. Shipwrecks have been shown to both galvanise the community into dualistic roles of saviours and salvors, but to also polarise the township through the advent of looting and the attempted prevention of it by authorities. Shipwrecks have been seen to be both disaster and boon, and have extensively shaped community relations and interaction. They created new relationships within and without the township (particularly between the maritime groups), and also generated new places that were accessed by many different social groups for many different reasons. The collection of flotsam and jetsam, particularly of coal in Lonsdale Bight, has generated new social practices and etiquette that were undertaken by all social margins of the community. As such these sites operated as unifying mechanism within the township that cross cut other social relations and boundaries and provided an area of equal access to all.

Fishermen were also subject to the inclement weather in this area, but were forced by necessity to endure it as part of everyday life. This led to different perspectives of the area from passers by, and although they often feared the region they often understated the danger with a philosophical air of indifference:

Was The Rip dangerous? Christ Yeh!, especially in a south west wind and a big break, with the tide and a break coming behind you. A few boats got sunk there. I wasn't too happy sometimes coming through I tell yeh! [CS]

Some pilots expressed differing views of working the Rip in bad weather, which presented the greatest enjoyment, but also the greatest challenge:

Some pilots did the job but didn't enjoy what they were doing. I always enjoyed the job. I always did my best job in bad weather. When the wind was blowing a gale, you always had to think about what you were doing. In safe weather you were yacking to the master, and your mind was not as much on the job. I always enjoyed it then, like most pilots did. You planned the job in bad weather better, as you had to think about the job more. [CSp]

Furthermore, areas of The Rip and The Bay were also held in high esteem for their associations as burial grounds, particularly in regards to where local loss of life had occurred on shipwrecks (e.g. *HMAS Goorangi*), but also where the ashes of cremated loved ones had been scattered over the water (See Appendix G-1 for more discussion of these areas).

Historical photographs often portrayed the Heads with one or more vessels atop the rocks at Pts Lonsdale or Nepean. The abundance of these iconic photographs suggests that they were originally produced for newspaper sensationalism, but may have had a joint effect in encouraging sightseeing into the area in a similar fashion that macabre tourism ventures often arise at murder scenes or aircraft crash sites. Whatever the case, shipwrecks have remained an enduring influence on the area, and are still used today to promote tourism and heritage values for the area.

II) External Perceptions

Thus far, this area has been examined from a predominantly local viewpoint. But this area was also a nodal focus for thousands of ships every year, and it would be remiss not to briefly touch upon the external viewpoints of those who also utilised this area. There was another side to the impact of the shipwreck images that had not yet been considered above. Thousands of vessels have entered the Heads, and with them many new immigrants into the colony/state. The effect of these photographs on those contemplating their arrival at the heads must have been twofold. Mixed with the jubilation at the end of a long and arduous voyage, these images must have induced caution in those who controlled the vessels, and terror in those who did not.

Many accounts exist of the descriptions of voyages through the Rip into Port Phillip Bay. Most speak of joy at the end of the voyage, but also comment on the ferocity of the entrance:

...Before long the Rip is at hand, the dreaded Rip, before which even the hardest pilots will sometimes quail, and small wonder at it... There she goes, right through the wrathful Rip, which hisses its mad defiance of the intruder upon its gambols. 'By heavens' exclaims the captain who had never visited the port before, 'I had heard The Rip was bad, pilot, but had no idea it was anything like this'. Now the vessel cuts The Heads, and the water is breaking heavily on Lightning Rock. Safely through her passage, she continues on her way, her course shaped by the South Channel ("The Mark Three" 1884b)

For those who had previously suffered tragedies in the area, it was a dangerous place to be forever avoided for its associations with bad luck. A seaman who had been wrecked in two separate incidents at the Heads (*George Roper* and *Holyhead*) was quoted that:

...all the wealth of the Indies would not entice him to ship on board of a vessel; bound for Victoria, as he believes it would be simply tempting providence if he tried to run the gauntlet of Port Phillip Heads a third time. (QS 15/2/1890)

It is clear that the Rip represented many different things to a diverse range of people. It was a place of employment, a challenge, a dangerous area and a harbinger of homecoming to name but a few perceptions. More significantly, these observations reveal the attachment of intangible values to an area of seemingly natural stretch of water that transformed it into a cultural junction imbued with multiple understandings and meanings.

III) The Rip as a Transition Point: Gradual Shedding of Responsibility and Imposition of Authoritative Landscapes

The interaction of incoming vessels with many of the above industries represents a compulsory process of shedding of responsibility for the vessel's master. As the ship approaches the coast, the master is guided by official sailing directions as to where he could navigate his vessel. Until that time, the commander possessed supreme responsibility and power over his vessel, and answered to no man. This represented the first stage of the imposition of an authoritative landscape, where neo-liberal governmental strategies are gradually introduced and the authority of the master is decreased. The acceptance of a pilot to navigate through the heads then relieved the master charge of the vessels' navigational responsibility, and similarly as the Customs, Quarantine, Immigration and Postal Officers boarded the ship, so did the Captain's responsibility for cargo, shipboard health, passengers and mail. By the time the ship had docked in Melbourne or Geelong, liability for shipboard discipline, and cargo was also transferred to the water police and the shipping agent respectively, along with the ultimate command of the vessel to the owners, and responsibility for the crew back to themselves. This handing over of power represents a convergence zone of authoritative maritime landscapes, where power is gradually transferred in both directions dependent on the course of travel (inwards or outwards). This liminal zone is a preparatory transformation which both heralds and farewells the entrance into the disparate worlds of terrestrial and shipboard life. As such, it is a formal ritualistic and/or authoritative landscape that prepares both crew and passengers for the new rules and regulations of the changed lifestyle ahead. Stretched further, for passengers it could also be seen as a right of passage into the liminal world of

the sea, where aspects of time and routine reality are suspended, before a ritualistic reintroduction into sometimes strange, but more familiar environments upon reaching land. Those completing the voyage are borne anew into a new land, which has strong parallels with ritualistic initiation processes.

From a career sailor's perspective, the transferral of these powers may represent a ritual transition from unfamiliar and/or uncomfortable terrestrial customs to routine and familiar shipboard life. These gradual transferrals of power represent cognitive transition points along the maritime routes that herald imminent changes in their daily landscapes, which are essential elements for preparation into a new world.

On the outward voyage, the captain can be seen to gradually accrue supreme responsibility of the vessel through the deference of the various maritime authorities to him, until he assumes supreme command of the ship. Similarly, as the vessel approaches port, the crew have time to prepare for the transition to terrestrial life and the freedom and responsibilities attached to it. In some ways this represents a transposition of the crew's roles between dependents and free men (or initiates and initiated/ child and adult) where they are forced to rotate between giving up their independence and assuming responsibility for themselves. The separate roles of the captain and crew are reversed with each transition, and are diametrically opposite with each conversion.

The junction of these zones (or transitional landscapes) are marked with physical and cognitive markers that are recognisable to passengers, crew and master alike, and have different meanings dependent on individual roles. These liminal zone junctions are expressed physically by cruising pilot vessels; lighthouses, beacons and flagstaffs; approaching vessels and anchorages. Cognitive factors may include changes in wind, cloud or swell direction and size, presence and absence of light (from lighthouse or settlement looms; pilot or lifeboat lights), sounds (Natural: from wind against coastal features; breaking seas; terrestrial activity; birds or Artificial: foghorns, or whistling buoys), smells (trees; soil; smoke; livestock) etc.

For passengers the sight of the shore may represent the end of the voyage and the arrival of safety, whereas for the mariner, the coastline heralds the onset of approaching danger. The transposition of the mariners and passengers perspectives of arrivals and departures represented the existence of two community landscapes during the same voyage, where arrivals and departure represent opposing outlooks dependent on the ideology of the participant.

D) Cross Cutting Ties and Nested Landscapes – Queenscliff as an Interwoven Community

The collective identity of Queenscliff has been examined from a variety of avenues. It has been shown that many members of one thematic group also identify with other factions that cross-cut the social and occupational boundaries present in the town. For instance, although the defence forces and fishermen were widely separated by hierarchical class system, they both identified with each other as footballers, an analytical unit that also drew together farmers and other isolated communities from around the Bay. Numerous other affiliations through sporting and sailing clubs provided evidence of other ties that cross cut the social fabric and identified usually disparate individuals as communal social groups.

Furthermore, shipping tragedies drew together many different sectors of the community in the common cause of rescue. Pilots, Customs and Health Boat crews united with fishermen to become Lifeboatmen, which bridged any past social differences and identified a new social group based on their shared activities and common cause. Similarly saviours often later transformed to salvors or looters, and this practice may collectively be used to identify a large proportion of the ancestral community. The continuance of the practice of communal reliance of coal collection for fuel may provide a unique archaeological signature for this township, as a community of beachcombers.

External relations with the town also provided an impetus for other cross-cutting ties. Visitors often galvanised the divided community into other categories based on residence and ancestral belonging. Surprisingly, this may have particularly been the case where defence forces and fishermen were united in their perspectives of visitors as outsiders and interlopers, despite the fact that the former were often assigned similar status by the latter within the township itself. This was also evident in the distinction of annual residential (or ancestral) tourists from daytrippers.

Other distinctions may have included the division between mariners and landlubbers, where demonstration of specialist nautical knowledge differentiated those of the sea from the landmen, and this situation might further explain the divisions between the land based army and the fishers. However, there also appears to have been a unity between the farmers and fishers that was probably rooted in their mutual distinction as primary producers who understood the difficulties associated with seasonal produce availability.

It has been demonstrated above that these perceptive landscapes were not necessarily mutually exclusive. Members of one specialist community often overlapped into more than one thematic maritime landscape, and this was frequently the case with fishing, the military, pilots and the lighthouse service sub-groups. In these cases the juxtaposition between these groups represents in themselves yet another thematic landscape, but notably this does not appear to have been categorised as an accepted sub-group identity within the community. In particular, many residents actively reiterated the negative role of the military within the community, even though they were descended from defence force personnel as well as fisher folk. This observation leads to the speculation that there was a folklore regarding negativism against the military that may not reflect the actual reality of relationships within the town. It may be that the current perception of the community may be more favourably disposed towards a fishing ancestry than a defence background, and therefore some townsfolk are remodelling their identity to fit that role.

The differences between the army and fishers might also be attributable to a lack of common ground required to forge any relationships (based on disparities in religion, education and social status), especially as the army was not in a position to provide any of the economic opportunities that helped mesh relationships between the latter and other groups in the township (e.g. pilots, merchants/farmers, lighthouse service). Further unifying/divisive aspects which has not been further explored here are the effects of religion, education and shared country of origin (the latter of which was a powerful determinant in social relationships in the nineteenth century [JG]), and which presents further opportunities to investigate multivalent cross-cutting landscapes at many different levels.

Furthermore, both the lifeboat crew and pilots were held in high regard in the town for their services. Pilots were custodians of the Melbourne merchants and predominantly looked after property. Conversely the Lifeboat Crew's primary function was to save lives, and the prevention of destruction of property in the form of shipping and cargo was a secondary (if irrelevant) consideration. The disparity between pilots and lifeboatmen derived from the fact that pilots looked after and reinforced authoritative structures, whereas the lifeboatmen did not. It is notable that the fishermen, who were often considered the lowest societal members, were often revered as members of the lifeboat crew. This suggests that recognition of these men as lifeboatmen transcended the inherent social hierarchies present in the town as they ceased to be recognised as fishermen, but instead gained status for their ability as the sole group in the township who could deal with the intricacies of The Rip to save lives. In this regard, the fishermen of the lifeboat crew belong to yet

another thematic maritime group. It has also been suggested that similar cross-cutting landscapes might also exist that are based on religion and sporting affiliations, where members of individual maritime groups were temporarily transformed into collective congregational affiliates or club sportsmen for the duration of those activities.

Many of the thematic sub-groups investigated have starkly contrasting landscape extents which were not necessarily bounded within the study area. The Pilots Service and defence forces clearly utilise and possess landscapes that stretch far beyond Queenscliff to Melbourne (Williamstown - Pilots). The military forces were also a notable component of a wider international defence landscape. The tourism industry landscape of Queenscliff extended to Ballarat, Bendigo, Melbourne and the Western District, and to some tourists Queenscliff was part of their ancestral cultural landscape due to their annual holidays there. Of particular significance however, is the observation of the multiple residential cultural landscapes for individual fishermen, due to their migratory occupation of a number of towns throughout the year. These observations support Benders (1992:9) assertions that landscapes are differentiated, changing and sometimes boundless, and are dependent on experience and social access to place and space.

These situations highlight the presence of multiple nested landscapes, which exist on many different levels both geographically and temporally, and often cross-cut the normally accepted social boundaries. Where community members belong to more than one social group, these individuals may possess multiple perspectives or understandings of the same event or location, further complicating and highlighting the intricacies of landscape investigation.

9) Discussion

This chapter has examined the range of social relationships within the township of Queenscliff. The diversity of interaction between the townsfolk has been shown to be effected by social ideologies of class and exclusionary practices that encroach upon the territory of others, and the rebellious reactions to those notions that united often disparate groups in joint opposition to them. But not all communal relations were based on conflict. As has been shown, many landscapes of reciprocity were born of common hardship, altruistic values, opportunism and shared communal understandings which sometimes illuminate often unexpected solidarity within the community.

The situation is further complicated by the duality of seemingly unified groups, which demonstrate both external cohesion and internal fragmentation which operate concurrently on two different fronts.

Space availability was obviously a significant factor in determining inter-relationships in the township, given the restricted space available on this very compact region, which was essentially an island linked by a narrow peninsula. It must be remembered that although many of the social groups (e.g. defence, tourists/tourism) may have used or controlled access to areas of the sea at various times, most of the social interaction that took place was based on terrestrial areas. These spatial limitations constrained the development of individual and group landscapes, and often forced inescapable social interaction that resulted in both interdependence and friction between the various sub-communities. Those mariners who could escape the physical parameters of the township for the day via the ocean (e.g. fishers and pilots) had a far greater landscape to operate in, as opposed to the rest of the population who were forced to live within the locked parameters of the isthmus. This observation may explain the different social structures of the fisher community, who had a far wider area over which to develop social relationships. The constricted space of the topographic setting further reinforced the insular notions of ancestry and belonging in the township, as the restricted physical boundaries easily demarcated those who belonged on the island from those who did not. These notions of island mentality are akin to those described by Greverus (1999:63), and underpinned the alternative social structuring of the local community in opposition to the outsiders.

The physicality of these relationships is expressed in the demographic layout of the settlement, the location of various prominent features/structures and archaeological remains, which, with the benefit of reflective examination (provided by numerous unconventional data sets) revealed tangible aspects of cognitive landscapes based on communal belief systems and hierarchical ideologies. Significantly, these material props were then often used to reinforce and substantiate those same philosophies within the township. It has also been shown that the impacts of communal interaction are also identifiable environmentally, where what might traditionally be viewed as natural formation processes are actually archaeological signatures evident at a regional scale.

The development of two conflicting modes of social hierarchy within the local community is significant, as it demonstrates the disparity between the types of sources that are available that inform of local and external belonging. It has been shown in the discussions above that

archaeological visibility is not necessarily related to locality or localness. Although local communities often demonstrated lengthy occupations of the same arena, they were often better represented through cognitive resources (e.g. oral histories, toponymy, folklore etc), and that where archaeological/historic sites were evident, they were much smaller in stature than those produced by their non-local counterparts. Conversely, those groups that were more transient in nature were often well characterised archaeologically, both through robust (often intact) and substantial sites, and through the exclusion of localized residents from their landscapes (which are evident in retardation of the development of the landscapes of others), but whose members usually lacked the time depth required to develop a deep understanding and knowledge of the surrounding locality. In the latter case, outsider groups often sought to anchor their advocacy of belonging (and hence local identity) to the relict remains, and to the memorialisation of their non-familial clan's local occupation. These two approaches also highlight the difference between authoritative landscapes (that dwell on legal physical ownership/possession of landscape) to those of resistance, which subvert the former through cognitive possession of that same region. This observation is significant, as it demonstrates that interactive landscapes can only be investigated by using a combination of disparate data derived from both from customary and non-traditional sources.

This small study area has been shown to harbour a multitude of landscapes, each with its own rich texture of varied perceptions that often assign multiple disparate meanings to individual specific features, each of which are dependent on the individual and collective perspectives of each maritime group. Where membership of one thematic landscape is cross-cut by one's associations with another, multivalent nested landscapes exist, which further demonstrates the complexity of interpreting thematic and community based landscapes. Additionally, it has been demonstrated that Queenscliff residents have predominantly based their collective cultural identity around their maritime environment and occupations, and that it was predominantly maritime professions that delineated social structuring within this coastal setting. This reinforces the validity of Westerdahl's previous observations that maritime culture is a valid entity unto itself, and not just a specialised extension of the terrestrial landscape, an area which requires further investigation.

Through the adoption of a cultural landscapes approach it has been demonstrated that for every landscape feature and change there are more than one interpretation or meaning, which is dependent on one's position within and between the various social groups of any township. This approach therefore enables researchers to understand complexity of social and environmental landscapes,

where relationships and interactions have tangible physical expressions (such as empty space and environmental change) that may not necessarily be confined to archaeological deposits alone.

The examination of interactive landscapes therefore also presents new understandings of communal landscape structuring as a different stance of thematic investigation. It has been demonstrated that this approach can only be achieved through the combined use of the many disparate data sources and thematic landscapes investigation of maritime communities. The successful of this methodology has produced insights into the holistic social behaviour and functionality of Queenscliff as a maritime community based on ethno-archaeological analysis that further demonstrate the strength of the ambiguous nature of the maritime cultural landscapes approach for regional investigations.

This methodology has facilitated the investigation of a maritime community using many disparate approaches and at multiple geographical and social levels. It has led to the identification of many different types of activities, practices, belief systems and ideologies that have previously been unaddressed, unrecognised or invisible in other Australian maritime studies. These observations have obvious connotations for future investigations of maritime landscapes, and the success and applicability of this methodology which will be discussed further in the next chapter.

Chapter Nine: Cultural Landscapes Investigation - Discussion and Conclusions

1) Introduction

This study has shown that complex cultural landscapes are constructed from sets of social interactions formulated within and between the environments of individuals and groups. Although people live within the same contextual setting, they use and therefore experience their surroundings differently to others, leading to highly diverse and overlapping landscapes. These worlds constantly evolve, and are dependent upon a whole raft of economic, social, ideological and technological factors, which further change how people think about their worlds at any particular time. Cultural landscapes are therefore clearly a fluid phenomenon, and directly reflect the relationship between, and perceptions of, a person/community towards the spaces they occupy.

Just as there are multiple influences that drive landscape development, so are there also numerous data sets that inform of it. The Queenscliff study has highlighted the range of relationships that might exist in any given area, and that many these avenues can only be understood by consideration of singular or a combination of disparate sources. This observation has significant implications for studying landscapes, as certain avenues of enquiry may only be accessible from given data sets/sources, and therefore it may be impossible to further explore some aspects of landscapes where they are unavailable.

This research has suggested new methodological approaches and theoretical abstractions for the investigation of historic period maritime cultural landscapes. Even though many of the abstracted theoretical factors that might underpin cultural landscapes research were derived from cultures with much greater time depths, they have all been shown to have great applicability for the examination of Western maritime cultures. Furthermore, this study used the Queenscliff region to test and refine several of the innovative methodological aspects of the approach. The combination of ethno-archaeological investigation of thematic groups, along with GIS data representation of disparate data sets provided substantial and often surprising insights/problems when analysing local landscape construction. The proven effectiveness of the technique has highlighted both exciting potential avenues and limitations for further research of maritime communities elsewhere.

The following chapter will provide an overview of the results of this study, and assess the effectiveness of the methodology and its interpretive theoretical framework for introducing behavioural studies into maritime archaeological research.

2) Analysis of the Methodology

A) Essential Principle Components of Landscape

It has been demonstrated that the many of the false dichotomies initially addressed in Chapter Two certainly have no place in a maritime cultural landscapes studies. The introduction of a physical separation between the research areas into land and sea (without comparison of the two regions) has been shown to be an inherently academic distinction, as the sea is imbued with as much cultural definition and meaning as the land, dependent on the viewpoint of the user. Indeed some mariners are more at home on the sea than the land, although they utilize both regions. The sea is literally dripping with cultural connotations and even areas where the seabed is hidden exhibit meanings tied to both cultural practices and beliefs. The demonstrated use by mariners of alternative sensory perceptions (smell, sound, touch, taste), along with observations of seemingly natural features and wildlife to determine routes, resource availability and weather/climatic change further exemplify the indistinctive character of natural versus cultural features, as all landscapes have cultural value. The “natural” marine environment has been demonstrated to not only provide resources, but to be a place of social transformation, where boys can return as men. It is also used as a social hierarchical tool to differentiate those who know its secrets from those who do not.

The sea may also represent a liminal transformation and cleansing that separates a former life abroad from that in a new land. To those that survive the journey it symbolizes the genesis of a new life, but for shipwreck victims it sometimes signified the end. Further to this theme, although many shipwreck sites were often invisible beneath the mask of the sea, they are still imbued with many deep meanings by their victims’ ancestors that are accessed on many different levels. The continued use of the sea as a burial ground, especially for those who traditionally operate on land suggests it holds deeper spiritual meanings that are often not readily accessible to those outside the community. It is therefore clear that the ocean is in itself a palimpsest of meanings that has many similarities and disparities to its terrestrial counterpart, and that it is used as an integral component of holistic landscapes that include both the terrestrial and marine environments. This observation reinforces previous statements by many other landscape researchers that the sea is a cultural

environment imbued with multiple layers of meanings (Firth 1993:1, 2; Darvill, 1999:104; Jasinski 1999:17; Roe and Taki 1999: 415, 419).

It is therefore also impractical to distinguish between so called natural and cultural areas within any landscape based on whether they are wet or dry, as whenever any area is subject to any form of human appreciation, it automatically attains cultural value. As demonstrated in the Queenscliff case study, although the sea apparently represents a seemingly natural feature, it may also be imbued with multiple cultural values, as do seemingly natural terrestrial areas. The only distinction that may be observed in these situations is that due to their different environments, the sea and land are differentially accessed, but are utilized as a holistic landscape neither the less.

The continuing nature of so called relict landscapes, which retain significant meaning within the community, both as sites of resource procurement and to actively reinforce the ancestral cultural identity has been succinctly demonstrated. Of note for maritime archaeological studies, shipwreck sites, which have long been considered “time capsules”, have been and still are actively directly and indirectly accessed by large numbers of the community (both physically and cognitively), and in some cases they still retain deep social meaning associated with ancestral identity.

Holistically, archaeological sites in the region (both above and below water) are utilised as tangible anchors that actively reinforce the cultural identity and long term connections to place of many groups and the maritime identity of the community as a whole. The values ascribed to these features have been shaped and reshaped over the years to strengthen the ideologies and cultural practices present in the town. The continuing nature of the landscape’s evolution has been demonstrated in the fluidity of all the landscape themes investigated, which have themselves evolved and shifted both spatially and temporally.

The investigation of causes of landscape evolution of the study region has provided further unexpected insights into social dynamics and cultural practices of the Colonial and post Federation eras, which have broader applications elsewhere. It has been shown that technological advancements; changing political, administrative, hierarchical, authoritative, health and other social/community ideologies (and the reactions to them); economic market forces, environmental determinants and gender differentiation have all contributed to landscape evolution. It is notable, however, that all the thematic landscapes studied have been shaped by different combinations of social, cultural and environmental mechanisms, which further demonstrates the complexity of

cultural landscape construction. This observation is particularly important, as it has become apparent throughout the course of this investigation that there is no one singular approach to studying cultural landscapes, just as there is no particular combination of data sources that will inform of it.

It has been shown that the maritime landscapes of Queenscliffe have been heavily influenced by the expansion of British/Western European culture and its incorporation/hybridization within the new colonies. This transportation of cultural ideologies and practices from ancestral homelands by immigrants formed the basis of new cultural landscapes in the adopted country. This has further ramifications for the possibility of cultural landscapes studies that stretch across international boundaries, and offers new opportunities for studies of regional cultural landscape diversity and evolution that are akin to the indigenous expansion of culture into the Pacific (Gladwin 1962; Lewis 1980; 1994; Irwin 1992; Gosden and Head 1994) and northern Europe (Westerdahl 2003a:481). This observation highlights the potential enormity of landscapes, that might stretch across vast geographical areas that may not (initially) be readily apparent when investigating defined regions. Furthermore, the differentiation of local transported practices, technology, lore, custom and ideologies from their ancestral homelands (e.g. tourist landscapes) further reiterates the dynamic nature of localised landscape evolution.

The dependence of the many groups on the ocean, whilst at the same time fearing it, presents an interesting conundrum, where the potential fount of fortune is also the source of despair and ruin. This raises another focus of this study, the multivalency of landscapes for any given area. The perceptive landscapes of various groups has been shown to often be diametrically opposed (or at least very dissimilar), leading to the observation that individual landscape features may have multiple meanings, even to the same users group. This has been succinctly demonstrated through the examination of shipping mishaps, which are at once sources of tragedy and despair as an event to both victims and rescuers, and yet also sources of opportunity and hope as a place of resources for the latter. Similarly, the Queenscliff defence facilities, fishing accommodation areas, the piers and even The Rip evoke different meanings responses from the various thematic sub groups. This observation has further implications for management of heritage and archaeological sites, as it is evident that any one site may be the focus of varying and often contradictory values both within and without a community.

These theoretical components underlie the success of this project, and have great applicability not only in other maritime areas, but in all landscape regions.

B) Advantages of Using Themes/ Data Sources

The thematic methodology used in this thesis highlighted a number of areas of interest for the study of cultural landscapes. The use of themes provided a mechanism with which to order and manage complex and large bodies of data, through the recognition that disparate social groups use and exploit landscape differently. Archaeological sites, behaviour and history undertaken at the same site by group members could then be linked thematically. However, the differential use of landscape also provided an opportunity to examine collective similarities and differences of community members both within and without a group, and facilitated access to the diversity of multivalent views of landscapes, events and places that might exist in any one area, and by proxy provided a better understanding of the interrelationships that developed within the township. Furthermore, the thematic approach gave new insights into the multivalent community perspectives of individuals, whose membership of more than one topical landscape cross-cut normal social boundaries (e.g. the fishers as lifeboatmen). Therefore the thematic approach did not impose boundaries on meaning, but rather extended the understanding of the diversity of cultural landscapes meanings that might exist regionally.

Perhaps the most pertinent observation is that different themes require different data sources for investigation, and that the availability of these data sources will vary according to the nature of the social populations of the study area. Many factors determined the accessibility of these data sets. It appears that populations of official and administrative governmental personnel will be well documented historically, but that these records may lack a level of personal details required to access their cognitive landscapes, whereas the reverse is true for informal and/or extractive industries or other hunter gatherer societies. This notion is best represented through the examination of the types of data that were available for different types of maritime groups. Defence forces were generally well documented historically through numerous and detailed government records. Large and often complex archaeological sites are usually abundantly evident throughout the area which demonstrates the presence of the military. However, historical records predominantly deal with staid technical issues and regimented routines and do not normally provide access to the daily lives and thoughts of the soldiers outside of their military schedules. Conversely, the fishing industry was typical of most extractive industries, which do not normally produce their own individual

records (there are strong similarities here with the gold mining industry), but are occasionally represented communally in official records. Fishing as a practice was also usually sparsely represented archaeologically in traditionally investigated sites, but often has a rich oral tradition. The practices, beliefs and utilisation of fishing landscapes are usually transmitted orally through traditional folklore networks, that are held locally and are often restricted to familial or community groups. These oral histories provide rich and informative insights into the routines of the everyday lives of the fishing community that are not usually available through documentary sources.

It can be seen from the investigations of just two maritime groups within the community that there are obvious disparities between the types of data sets that inform of these groups. Furthermore, the stance of the view of these groups also varied based on the location of the recorder. An internal view is gained of the fishing industry, whereas only peripheral observations of the military are available, due to the transient nature of the defence forces and the documentation of their activities largely by external or hierarchical structures that are not concerned with personal views of individual soldiers. This observation further demonstrates the variation between how the data sets are organised, and highlights that different aspects of the world are accessed through different types of records. This disparity between the availability of data from similar sources for different community groups may at first be considered problematic, as it appears to curtail their joint analysis due to dissimilar representation, but as has been demonstrated throughout this thesis, the strength of this approach lies in that it uses different data sets in same kind of analytical framework for comparative analysis.

Furthermore, the landscapes of some thematic groups may not be accessible within the geographical area of the study region, due to the transient nature of those groups. Although the official stances of defence forces and the tourism industry may be evident through official documentary records and often substantial archaeological representations, individual perspectives of those landscapes may only be accessible outside the study region where those landscape participants (or their descendents) now reside. Although this was initially seen as a failure of this research's method, it highlights the limitations of imposing researcher-derived boundaries on landscape studies, and further informs of the nature of the data and the character of the use of the landscape.

It has also been shown that the nature of the data sets for each thematic group does and will vary for each group. Therefore to adopt a thematic approach requires recognition that each theme's data sources will vary in character and availability, and that this will probably also alter between

locations and cultures. The overriding observation here suggests that there is no one acceptable way to analyse any particular theme that can be generally applied to every area, but that each investigation must tailor its approach to suit the nature of the thematic direction adopted and the data sets available. To reiterate this point, if certain data sets are not available in some areas, then it may preclude the investigation of that cultural theme, and new direction of investigation for that region may be required.

C) Differences in Structuring Agents/Data Sources for Each Theme

It has been demonstrated above that each thematic landscape has been ordered using very different structuring agents and mechanisms. For instance the fishing landscapes have been driven by environmental aspects, market forces, social hierarchy and access to and understandings of traditional knowledge networks, whereas defence landscapes were highly influenced by global political trends and technological advancements. It has been further demonstrated that other thematic approaches, such as the shipping mishap landscapes, are dependent on the conflicting ideologies of humanitarianism/altruism, economic profit and/or opportunism which cross-cut established social divisions. However, other themes which were not included in the main body of the thesis, suggest different mechanisms affected landscape development. For instance, tourism landscapes were affected by the changing ideologies concerning health and sexual separation, escapism and the need to reinforce social hierarchical divisions through the use of empty space as a cultural boundary (see Appendix D-1).

Holistic community and interactive landscapes were another characteristic approach that cross-cut other themes, and were driven by the combination of all of the above landscape mechanisms, but in particular authoritarian and social hierarchical mechanisms, and attempts to subvert and/or reinforce them. The divisive nature of some thematic landscapes actually acted as a unifying mechanism for others. It has been seen that tourism congealed the normally disparate landscapes of defence and fishermen, to unite both in opposition to tourists and utilisation of tourism landscapes, even though this disparity also operates between the two former groups. Other relations were driven by areas of commonality/interaction which united normally dissimilar groups, such as farmers and fishers, or merchants and fishers. It can be seen that no two landscapes appear to be driven by the same mechanisms, and therefore landscape analysis must be tailored to suit each individual landscape theme being investigated.

To further complicate the matter as each theme is accessed using differential data sources, the approach to the investigation of landscapes is highly complex and may not necessarily be transferable between different geographical areas, as differential availability of data sets may occur in other regions. These observations suggest that although thematic approaches to landscape investigation have been successful, they are not necessarily formulaic in nature, and must be adapted to consider the data sources and nature of landscape determinants for any given locality. This further reinforces the ambiguity of landscapes as recognised by Gosden and Head (1994) and Anschutz (et al. 2001). The ambiguous nature of landscape lies not only in its structuring mechanisms, but also the ways and sources available to access them. Rather than being problematic, the indistinct qualities of diverse landscapes presents opportunities to examine and compare characteristically diverse themes using widely different data sources, approaches and disciplines, which in the past may have been considered academically impossible. This approach enables further consideration of the richly interwoven texture of social diversity and cultural interaction, as all data sources are worthy of inclusion and can inform of different aspects of similar and/or diverse landscapes. However, the key to ensuring the success of this approach lies in the recognition that the methodology itself is not ambiguous, but is clearly outlined along with the reasoning behind it, along with provision for change if needed.

D) Complexity of Landscape

Many of the sites discovered and different observations made during the study ultimately had to be omitted from the final documentation here for the sake of brevity. The Pilots, Customs, mail, tourism and quarantine landscapes proved to be viable study themes unto themselves, which further demonstrates another problem with this approach. It was necessary to impose boundaries on the scope and number of themes addressed, the geographical or temporal limits, or all of the above. Landscapes are often endless and seamless, and multiple landscapes overlap far beyond the horizon. For this reason any landscape study is flawed from the beginning, if it imposes external and/or artificial restrictions on what is significant (and what is not), geographical limits and time depth margins to keep the project manageable, and it is therefore important to recognise these restrictions within the methodology. This is particularly true of maritime cultural landscape studies and any imposed boundary between the land/sea divide.

Many issues surrounding the extent of landscapes have been highlighted during this study, for instance where the Queenscliff landscapes are not bounded to those who live in that locality, but are

a suite of multiple landscapes that extend to Lorne, Ballarat, the Western District, Geelong, Melbourne, Gippsland, Bass Strait and far beyond. Perhaps the question that should be addressed is whether landscapes studies should investigate regions, or directly focus on people? This thesis began as an investigation of a coastal maritime township (i.e. an area of land) and its residents' activities, but transformed into a study of its people, and where/what their worlds represented to them (i.e. landscapes). The fundamental difference between the two approaches is crucial. Land is present in the geography of the world, whereas cultural landscapes are resident in people's minds. This represents the basic difference between physical landscape studies (that are rooted in the discipline of geography) and cultural landscapes which embedded in the consciousness of its inhabitants.

Future cultural landscape studies therefore need to move away from physical territory oriented research towards people focussed studies, which recognise the overlapping and unconstrained nature of landscape. By adopting a thematic approach, it has been possible to reconstruct meaning and understanding of a study region, which has also negated the boundaries imposed by this researcher's own perceptions and/or research directions. However, the imposition of a thematic approach in itself introduces bias as it categorises cultural landscapes and who/where people fit within that framework. The ambiguous nature of landscape therefore requires a suitably flexible approach to recording it. Often the way landscape is structured will not become apparent until after the study is underway, and therefore fluidity and innovation in approach is essential to incorporate new developments as they arise.

This study has investigated several different thematic approaches to recording cultural landscapes, and in particular has shown that social structuring and diversity affect landscape construction and perception. Membership of a particular profession has been shown to hold specific relevance to the determination of social status, and hence individual landscape perception and access. However, it has also been demonstrated that there are many webs of relationships that cross-cut these social boundaries, thereby broadening or adding further individual landscapes. Furthermore, the introduction of external influences such as shipwrecks (but this could also include other phenomena such as war, immigration/external contact/trade, other disasters etc) produce stimuli for the unfolding of other types of relationships and social bonds (that cross-cut normal social structuring), and hence generate different cultural landscape evolution. Many other types of social bonds exist that may further determine individual landscape development, but were not explored in further detail in this study. These might include familial bonds, religious/ spiritual beliefs and community

(e.g. Catholic vs. Protestant), secular/community orders (e.g. Masons, Rotary), national identity/ethnic origins or sporting affiliations. The point made here is that it is impossible to ever address the entirety of individual and community cultural landscapes, as all are unique, diverse and/or boundless. Once this is recognised, the researcher can investigate different thematic aspects of landscape, with each new perspective a fresh chapter in a never ending book.

E) Problems Experienced with this Approach

I) Oral Histories

Although most informants were forthcoming with information when asked, many had to be prompted to offer information for certain topics. It became evident that some information was not shared by the entire community, but may be restricted to given sub-groups or individuals. This was particularly so for the fishing community, where threads of information (particularly regarding specific fishing sites and practices) had to be teased out when stumbled upon, and often were inaccessible unless the pertinent owner of that information was located. The researcher was often directed to ask another identified source, as that person knew more about the subject than they did. This may be indicative of ownership of specialized knowledge of different subjects, which are restricted to those trusted by the owner, an observation that has been made by other researchers working with Pacific and Australian Indigenous communities (Roe 2000; Monaghan 2005:262-6).

Alternatively, these apparent differences in knowledge accessibility may further elucidate aspects of individual landscapes, as what is considered important to one may be irrelevant to another, and this factor applies equally to the interests of the researcher. It may show that informants are telling the researcher the aspects of their daily lives that they think the researcher wants to know, and this may reflect the past bias of researchers who often concentrated on exciting or spectacular events and places. Everyday mundane factors of daily existence were often perceived by informants not to be of interest or significance, but were often forthcoming if the investigator expressed specific curiosity in or knowledge of those aspects (similar to an insider's perspective).

This highlights the problem that cultural landscapes studies try to describe concepts that are not usually verbalized, but which are stored within structured understandings of the meaning of landscape which are (often unconsciously) recognized in toponymy, landscape features and sensory perceptions. In recording oral histories we are introducing a practice where there is not usually a stated objective, or even verbalization of these factors. A simple analogy might be to ask someone

to describe the process of how to ride a bike. Some processes and actions are undertaken with often unconscious encoded thoughts, which are not normally described, and to enquire how a task is undertaken is perhaps less important than why is it done. This mirrors Bender's (1992:13) original observation that the event is often as important as the result.

These observations again demonstrate the restriction of knowledge (whether deliberate or unintentional is unsure) to outsiders, but is also indicative of individual landscape perspectives. This observation does not seek to denigrate the informants concerned (with whom the author often had very good relationships), but demonstrates the point made by Minnegal (et al. 2003) that community identity was often tied to one's ability to demonstrate an understanding of the social relationships and cultural meanings imbued in landscape, and that this was often restricted or rationed to outsiders. The relative paucity of fishing toponymy further illustrates this point, but is notable as it demonstrates that sometimes the knowledge required to understand the meaning of given landscapes was in itself restricted, and that other landscapes may exist that are inaccessible or rationed to outsiders. Furthermore, the key to unlocking access to this information may lie in knowing what questions to ask, which again demonstrates the naiveté of external researchers and their exclusion (whether deliberate or innocent) from that knowledge.

The researcher often experienced some (understandable) suspicion when first working in the community until a degree of trust was gained either through continued contact, or predominantly through introductions made by other community or family members. It became clear early on in this study that from the community's perspective my identification with an independent university (as a student) was preferable to any perceived association with the government (i.e. Heritage Victoria), which in itself opened differential avenues of inquiry. Any identification with an authoritative government institution often precluded access to some lines of investigation, and may further demonstrate the existence of cultural landscapes of resistance. This observation is notable, as it appears that this author was being classified into a thematic group by the community, and associations with any particular group could either open or preclude access to other landscape knowledge.

II) Recognition of Bias in Oral Histories

Often what appears to be individual experience is in fact based on shared familial knowledge. Familial ties within the community can lead to shared experience, which unless recognised, can

taint the researcher's perspective that the views expressed by these individuals are actually representative of a broad range of the community. This is a common problem in ethnographic research, but bears repeating here. In this study many of the informants were related (e.g. the Higgenbotham, Mather and Shapter families were kin; similarly the Ferrier Family) or derived from the same cultural subgroup (e.g. most Maritime Museum members had fishing backgrounds; Historical Museum members had business/tourism or defence ties). This raises the prospect of bias if other community members are not consulted, or only one group is surveyed, and highlights the necessity of investigating a wide range of sources and establishing the nature of familial connections, which is not always possible or immediately apparent. Although this initially appeared problematic, different perspectives of the same familial/ social group experiences may reveal other insights and/ or perspectives within that cultural subgroup. The key to successful use of this method is recognition of diversity and/or similarity of source derivation, and advantageous use of that fact. To compensate, the study questioned informants on their backgrounds, initially in relation to thematic maritime industries, but later with regard to familial ties. Despite these attempts, some community members who were reviewing this thesis still commented that it was slanted towards a fishers perspective [JG], and this may be the result of an unexpected over-representation of views from people with associations to that theme which was previously unrecognized by the researcher.

Furthermore, discretion was often required when considering the accuracy of some personal accounts. Some community members questioned the veracity and truthfulness of some informant sources, while others were accused of manufacturing truths. These factors were all considered when validating the existence of archaeological sites, and were cross referenced to other historical and archaeological data sources. However, this provided greater challenges when it came to perceptive landscapes, as personal perspectives define individual landscapes. Hence every informant's perspective was as important as the next in this regard.

III) Cultural Landscape Diversity: Adequate Range of Themes

It is clear that a decision must be made either to study one type of thematic landscape intensively, or to address many thematic landscapes in lesser detail or both dependent on time and resource allocation. The former approach will provide an in depth, but exclusive view of only that theme, but sets the basis around which other themes can be pursued. The latter direction similarly sets the frame around which other studies can be added, but can be peripheral in nature as it is impossible to

adequately cover all aspects of each landscape. Both these problems were encountered during this study, as the researcher was forced rationalize and exclude particular aspects of, and/or entire landscapes in order to provide a broad overview of the area.

Some cultural landscapes have not been adequately addressed in this study, particularly the defence and pilots landscapes (which often lacked personal perspectives). This was partially due to bias introduced through the access mechanisms to the community, which were predominantly fishing orientated; a paucity of long term ancestral residents in the defences forces (which is essentially a transient community); and author bias based on subject interest, opportunistic/available leads and time restrictions. However, the initial consideration of Queenscliff as a landscape study region was also problematic, as it was not until after the study was well underway that the sheer density of maritime services and activities in this region was appreciated, along with the vast geographical areas that they covered. Given more time and reflection on this experience, further studies in this field would address many of the other maritime occupations that operated in this area in greater detail including the Customs, Health, Lighthouse, Pilots and Mail Services; shipbuilding; tourism, quarantine along with other relevant businesses which although undertaken during this research, have by necessity been given scant consideration here due to space limitations. There is also considerable potential to expand the scope of investigation of landscape including routes and destinations, which provide a currently under-investigated avenue of enquiry that offers rich potential for future studies, as has already been indicated by the initial phases of this study.

IV) Ethnicity and Gender

It has only been possible to make a limited exploration of both ethnicity and gender within the constraints of the current study. For example the role of women and children has been further examined in regards to tourism and fishing, as has the relationships of ethnic Chinese and other non-British members of the fishing community. Indigenous interaction with the non-indigenous community has not been addressed here. The Indigenous population enjoyed often cordial early social interaction with the Queenscliff community, which was evident in many oral and historical accounts. However, given the extent of belief systems, social interactions and landscape features experienced for the predominantly European community, Indigenous perspectives would constitute a whole suite of landscapes again, which were considered beyond the scope of this study to adequately address. Similarly the perspective of the Chinese population invites further investigation. Although several female perspectives have been presented here, these have only

provided tantalising glimpses of the potential of detailed studies of women and children's perspectives of township and seaborne life that would undoubtedly further enrich the cultural landscapes scenario of Queenscliff.

V) Group Oral History Discussions

This study has thematically examined individual landscapes, but as has been demonstrated, individuals often transcend thematic boundaries through any number of factors including marriage and family ties, working relationships and externally introduced events. Although the use of categories demonstrate a fluidity of landscape, they also restrict those landscapes to individual and/or group perspectives, and sometimes bounded areas. This dilemma is further highlighted by the use of oral histories and historical documents, which essentially present individual landscape perspectives. Although landscapes are individually based, there is a need to address the commonality of landscape use. It is suggested that group oral history discussions may elucidate aspects of interconnectedness and disparity both within and without individual thematic maritime subgroups. One conversation observed between three older residents towards the end of the study demonstrated that memories of one event triggered other recollections from different community members, along with areas of disagreement and concordance. These aspects were often not observed during individual interviews alone, and hence offered multiple perspectives of the same place/ event/ person/ feature, which expanded understanding of the collective social landscapes of the town. Monaghan (2005: 250-70, 323, 331) has observed that group oral history discussions are an effective technique for recording Aboriginal community landscapes in Cape York, Queensland. It is perhaps these inter-relationships between disparate groups and individuals that present the greatest challenge for landscape recording, but may also offer the greatest insights of social interaction/discourse.

VI) Presentation of Interpreted Data: Narrative/ Chronological/ Network Approaches

The methodological approach used during this study was not 100% successful, as we need to look at other options for what the aims of these studies are and how the results are best presented. The ambiguity of cultural landscapes approach is one of its strengths as it does not limit the methodology or range of sources that can be exploited to investigate social behaviour and associated archaeological remains. However, a new reporting style is needed that is ambiguous in the same way, but which is currently not well defined.

The inadequacy of a narrative approach for cultural landscapes is apparent above. There are obvious overlaps between various maritime subgroups landscapes, and this is reiterated by the constant referral to, repetition and revisiting of the same themes/ events/ landscape features (which presented major challenges for the determination of the study layout). The narrative reporting approach is deficient for succinct investigation of cultural landscapes, especially where there are multiple and overlapping foci. GIS may be a more attractive approach as it allows one to view areas of commonality and disparity between different aspects of these landscapes that may reveal wider patterns that can not be explored using narrative alone.

Part of the problem is presentation of data. Currently data is expressed in a narrative that is antithetical to what we are trying to achieve. Bender (1992) has demonstrated that chronological analysis is not necessarily the best approach to cultural landscapes interpretation, as narrative is sequential, whereas landscapes are not. As has been shown, cultural landscapes consist of a complex interwoven fabric of social relations, landscape features and associated meanings, which form a web of multiple interlinked and/or overlapping ties that are not always easily defined or readily apparent within boundaries of time or space.

[DR] has suggested that new mediums such as the web offer alternative ways for presenting interlinked cultural landscapes data, which extends beyond the temporal or spatial restrictions of categorization systems. Network or web page style reporting offers the scope to integrate newly identified data and relationships into and between existing cultural landscape studies as it does not impose boundaries on time and space, and has already proven effective for at least one online journal (e.g. *Internet Archaeology*, see Hodder 1999). The integration of web-based GIS provides further opportunities for expanding cultural landscapes studies.

The interlinked nature of the themes (and consequently the data sets), have made this study very difficult to write. It has been impossible to address one without cross referencing to another, which in some ways may pre-empt the discussion of that theme, but is essential in order to cover one topic adequately. In some ways this dilemma characterizes the very essence of a cultural landscapes approach, as by its very definition it recognizes the overlapping and multivalency of landscapes in any given area. This problem epitomizes the ambiguity of both the approach and the reporting style. It is at once imprecise and yet all encompassing, and hence very difficult to present, as if it is too vague, it does not recognize all the linked relationships, and if too accurate then it is impossible to present as the connections are infinite. The presentation of cultural landscapes studies in

themselves highlight this problem as the researcher tries to generalize and concentrate multiple landscapes into a singular suite of observations which in itself is false.

The difficulty of how to present cultural landscapes research then raises the problem of what to leave in and what to exclude, and therefore imposes to some extent the objectivity of the researcher to decide what is significant. This is both a major strength of this approach, but also a fault. This project has attempted to investigate a region using several deliberately dissimilar themes that investigate both diversity and similarity to explore relationships within that area. It has been successful, yet narrow in its focus, and perhaps dozens of other studies are still needed before a minimal appreciation of the holistic maritime nature of this area is understood (but probably never fully).

The methodological approach used during this study has utilized the very fullness of the ambiguous nature of cultural landscapes, and (unlike many other studies) has addressed the vague nature of the ambiguity by providing a specific methodology for the investigation. This study has used the full range of possible data sets available from a very wide variety of disciplinary resources. By exploiting these data sources to their available potential, it has been possible to link behaviour to archaeological sites, which has identified a new set of site typologies that characterize specific traditional practices and possibly associated perceptions that may be applicable for use in other areas where some types of information that were used here are not available. In this respect the study has been a success.

Furthermore, as reiterated above, the study has identified that different themes require the analysis of dissimilar data sets. For instance the defence theme was informed predominantly by historical and archaeological data sets, as did the tourist landscape. Comparatively, the landscapes of hunter/gatherers demonstrated a relative paucity of historical and archaeological data, but were imbued with rich ethnographic and oral histories and folk traditions that relied on inherited knowledge. Landscapes of routes and destinations were informed by historical and archaeological data sets, but also environmental analysis and topographic change. Shipping mishap landscapes drew on all of these resources, which further demonstrated the cross cutting nature of this theme. This observation is significant, as it demonstrates the diversity of approaches required even at a base level such as the choice of data sets, and that if certain data resources are not available in the chosen study area, then that thematic approach may not be achievable for certain themes in that region. This does not mean to imply that the methodology utilized here can be transported and

immediately applied elsewhere, but that the approach for each area may be limited by the types of information available. The study also addressed the problem of comparison of dissimilar data sets, but has demonstrated that this can be achieved to produce tangible results. Furthermore, it has been shown that some landscapes (e.g. of communities) can only be accessed through the compassion of disparate data sets.

The variable nature of landscape development has been demonstrated to be highly significant, and very different determinants have been shown to formulate and diversify the various thematic landscapes. Perhaps the greatest (personal) discovery of this study is one that was already known, that landscape is a usefully ambiguous concept.

F) GIS as a Landscape Analysis Tool

GIS has proved to be a particularly potent analytical tool for landscapes interpretation in this study. The incorporation of geo-referenced historic cartographic sources and aerial imagery successfully guided the search for potential archaeological sites in the study area, and aided in identification of previously unknown sites through integration of ground-truthed GPS positions of archaeological data. Furthermore, the comparison of ethnographic and oral history data with archaeological and historically located features enabled social interpretations to be applied to these sites, and demonstrates the successful use of GIS as ethno-archaeological analysis tool. The ability to assign multiple thematic fields within the GIS databases made this medium an ideal tool for the examination of maritime group associations and aspects of multivalency of landscape features/events, and was probably one of the key elements for the success of this project. GIS also proved to be a successful medium for the analysis of temporal landuse change and environmental modification, which had further ramifications for the relocation of former underwater sites that were now located under land, such as in the case of the relict Fishermen's Pier and other former foreshore sites. Further investigation of spatial patterning using advanced GIS analysis techniques such as viewshed, cluster, nearest neighbour, cost distance and other statistical analyses were not attempted during the study (due to time constraints), but could be used to further investigate spatial/temporal relationships in the study area.

Perhaps the greatest utility of GIS integration in landscapes studies lies in its ability to view and analyse large bodies of disparate data types individually, thematically, spatially and/or temporally to further investigate areas of commonality and discordance between individuals' and/or group

landscapes when analyzing data patterning and social relationships ethno-archaeologically. The utilization of GIS systems mirrors the very concept of landscape, as it is unbounded, multivalent, dynamic, and exists on many different levels. GIS representations of cultural landscapes offer many advantages over conventional approaches for spatially depicting archaeological studies. They allow the recognition of fuzzy borders between conflicting user group territories, and the assignment of multiple meanings and values to individual features and areas, which have previously (by necessity of the recording techniques utilized) required defined or unique boundaries/ values when spatially characterized.

3) Analytical and Theoretical Innovations

This thesis has made a number of analytical and methodological contributions. Through the critical selection of many pertinent components of previous landscape investigations, a new methodological approach has been successfully tested to identify an extensive range of cultural landscapes within a maritime environment.

This approach has further shown that social relations which underpin and define cultural landscapes become evident when new types of data are considered. Social structuring is evident not only in settlement patterning within the landscape, but also through restricted access demonstrated by empty areas, and can be used to analyse the patterning of archaeological sites both under and above water.

A) Potential Research Directions

I) Oral Histories as a Significant Data Source For Ethno-archaeological Analysis

Although a wide variety of data sources were consulted for this study, the strongest and most illuminating force in this thesis turned out to be the nuanced way to approach ethno-archaeological analysis through the use of oral histories. The interplay with oral history and site data identified a range of new archaeological signatures, especially where people articulated how sites were used and constructed, and the associated perceptions attached to them. These are observations that are normally not understood from the archaeological record alone. The aspect that worked very well was being able to link an extremely rich oral record of (often) previously unrecorded behaviour to the tangible relict remains of those activities.

The significance of these observations is not that other researchers have not already notionally applied this approach elsewhere internationally (predominantly in Indigenous cultures), but that the results were surprisingly better than expected for a Western maritime community of this comparatively shallow time depth. This observation validates the original reasoning behind the importation of Indigenous Pacific Island literature to explore intangible aspects and the depth of perceptive landscapes for the study community, and shows that these types of studies could also be undertaken in Australia. This approach was not only rewarding anthropologically, but also facilitated a greater understanding of the physical landscape (and its seemingly natural changes) and spatial patterning of landscape features.

The characterisation of archaeological signatures associated with specific/thematic maritime landscapes has provided a potential window of opportunity for analysing similar site distributions found in other areas, where one or more of the data source types are not available. If folklore/ethnographic/anthropological observation of social behaviour can be linked to relict physical remains to understand cultural diversity and interrelationships in one area, then similar practices and culture may have been associated with analogous archaeological sites in other regions where (for instance) the historical record is lacking. Clearly, oral history studies have illuminated what would otherwise be a staid archaeological record, and therefore it is recommended that any archaeological study of landscapes should also address local knowledge networks. The product is recognition of the historical reality and the complexity, ambiguity and changes that make up a maritime coastal society.

II) Ethno-archaeological Approaches For Characterising New Types of Maritime Archaeological Sites/Cultural Behaviour

This study has made a case for the examination of new types of underwater cultural sites not previously considered within maritime archaeological studies. Maritime infrastructure sites have been shown to demonstrate large and/or complex archaeological signatures which, when considered in conjunction with ethnographic, historical and other data sources offer plausible demonstrations of cultural practices and social behaviour that formulated those sites. In particular, underwater infrastructure sites offer great utility in expanding the scope of landscapes research which has only begun to be accessed worldwide.

To date, there has been minimal integration of terrestrial and maritime studies beyond the littoral interface. Given that there are already huge databases of historic registered places and archaeological sites (both shipwreck and terrestrial), and that regional inventories of other specific types of maritime infrastructure sites are now starting to be compiled in many states, this approach presents the opportunity to expand the focus of archaeological investigations to consider the interconnectedness of maritime regional activities and perspectives that cross the land/sea divide.

The approach advocated here offers the opportunity to extend maritime archaeological investigation beyond purely functional and/or particularistic considerations to aspects of behaviour and societal structuring associated with maritime industries and communities. This avenue might further be extended to address the debate regarding cultural maritimity of a region as defined by Westerdahl (1995:213; 2000:13; 2002b:65). It is clear from this study that maritime activities were not just a specialised occupation within a terrestrial environment (as suggested by Hunter (1994) and Parker (1995), but actually underpinned the identity of an entire community as a maritime culture and/or centre (and was inclusive of many terrestrially based occupations). Although aspects of maritime culture have deliberately not been included in this thesis, this methodology has enabled further examination of this notion through the provision of a new mechanism of investigation.

This approach also has further implications for heritage site management, as the true multivalent nature of the range of values associated with features/events can now be recognised. This new stance contrasts starkly to some past considerations of heritage sites, where the functionality and significance of the site was often only officially recognised from a singular perspective, and any disconformity between recognised values presented more problems for site management than solutions. This approach has further connotations in relation to maritime archaeological sites, as it enables a wider appreciation of shipwrecks as places of continuing community value for economic, recreational and other practical/symbolic reasons, as opposed to their general previous consideration as non-systemic archaeological sites. These observations are significant, as they have the potential to expand shipwreck research into exciting new areas that focus on behavioural aspects of coastal life, and address the previous criticisms made of this field.

Chapter Ten: Conclusion

The theoretical abstractions that drive cultural landscape developments are now better understood and have been successfully applied to the analysis of a maritime society. Although many of these principles have been derived from analyses of cultures with far greater time depths, they have been shown to have equal applicability to a Colonial Australian maritime setting, and demonstrate that the theoretical relationships proposed in the methodological application of the approach were very effective and achieved the stated goals.

The methodological approach proposed here has demonstrated the complexity to which maritime cultural landscapes be explored, and that this can only be achieved through the comparative analysis of disparate data sources. It has been seen that interpretation of these often highly contrasting data sets was most effectively managed using a thematic analysis (based initially on maritime occupations), and the innovative use of GIS technology for data storage and spatial, temporal, predictive and topical analysis.

A previously untapped font local knowledge has exposed a wealth of previously un-investigated archaeological sites. The archaeological expressions that have been revealed are interesting and alternative types of maritime sites have been characterised, often for the first time. However, it was the depth of the oral histories which were perhaps the most surprising and exciting aspect of this research, due to their ability to ethno-archaeologically illuminate previously staid relics and features into places of work, play, conflict and social interaction. It was this source that has put the community back into the archaeological record, through a greater appreciation of their behaviours, perceptions and significance that they associated to landscape features and events which have brought the landscape alive. The functionality of this approach has proved extremely successful, as it has enabled a greater understanding of the interrelationships between maritime practices and the subsequent sites they produce, and placed the community with all its idiosyncrasies within the archaeological record. This study provides a mechanism to draw out the social situation in other regions even if no oral tradition survives through new approaches to archaeological investigation, based on the spatial distribution of the artefacts and the explanatory framework provided by the findings of this study.

These observations have further highlighted that there are significant archaeological imprints below the water that, if recognised, contribute to our understanding of maritime exploitation, and make

those environments that have not previously been investigated more legible. It has been demonstrated that even seemingly inconsequential archaeological imprints might reveal significant behavioural observations when considered beyond the limitations of current site specific methodology employed by many maritime archaeologists. Given that the range of this study has been restricted to a handful of maritime themes, the applicability of using an ethno-archaeological approach to identify unexplored underwater site types is immense, and along with the exploration of the spatial distribution of various aspects of maritime communities (including settlements, piers wharves, navigational facilities, bars etc) has produced critical understandings how maritime communities operate. This is not something that generally occurs in maritime or historical archaeological research in Australia, although it is common place with Indigenous studies.

However, it is the theoretical principles which are of greater importance than the methodology. Although the latter enables us to access cultural practices associated with archaeological sites, these are on the whole standard techniques which have been innovatively adopted for the purposes of the study. What are more important are the abstract theoretical factors that drive the landscape development, and enable us to understand why these things were there. This work has produced a guideline to key notions that underpin the construction/evolution of maritime landscapes, which are central to their interpretation, and have great applicability for maritime cultural landscape analysis in other regions. As has been repeatedly advocated throughout this thesis, it is the ambiguity that is the best way to get to the principles.

I went in to this study trying to identify what I could find and where it might occur, and came out the other side with a complex web of social behaviour which better informs of how/why these communities operate. These are multifaceted landscapes, which are full of surprises, and this study has advanced the understanding of the complexity of even seemingly simple small townships, and the structural and cognitive forces that drove their evolution. The methodology and theoretical approaches advocated here clearly worked in this scenario, and it is recognisable that these are not unique influences that were at work in that township.

As a result of this study the mechanisms that drove several common types of maritime thematic landscapes in Colonial Australia are now better understood, and their potential data sources and archaeological characterizations have been identified. These observations have great utility in other contemporary areas where one or more of the data sets might be missing or incomplete. These factors therefore clearly need to be explored further, and this avenue, along with the already vast

body of knowledge of shipwrecks, has the potential to widen the scope of maritime archaeology research into exciting new areas of coastal life.

This thesis was an attempt at the integration of a cultural landscapes approach into mainstream maritime archaeological studies. It has developed and demonstrated new methodological and theoretical approaches that enables wider analysis of behavioural and social aspects of maritime heritage sites within a broad regional framework, and has demonstrated the range of themes available for investigation. As maritime archaeologists become more interested in culture associated with seaborne activities, this study has outlined new ways of accessing cultural meanings imbued in landscape, to provide better understandings of maritime communities.

Glossary of Terms

Anchorage: An area of sufficiently deep water used to anchor vessels of various sizes. These areas are also usually sufficiently sheltered from prevailing local winds to prevent vessels being blown ashore.

Back Beach: A beach on the ocean side of a peninsula, which also has access to another beach on an enclosed/ inland bay (called the Front Beach).

Ballast: Heavy material placed in the lowest section of a vessel to maintain proper stability when not carrying a commercial cargo (De Kerchove 1961:36). Ballast can consist of stone, sand, iron or other metals, pebbles or water.

Ballast Mound: The remnants of the ballast carried by a vessel. Ballast mounds are found in situ on shipwrecks, or are created when thrown overboard from a vessel either when stranded or when loading a substitute cargo.

Bathing Box: A small shed initially used as a dressing facility before swimming. Later bathing boxes were simply fixed beach shacks used as changerooms and to store any possessions associated with use of the beach, and were usually privately owned.

Bathing Structure: Any enclosed structure used for recreational swimming purposes. These include hot water and sea baths, bathing boxes, bathing sheds, change rooms, and bathing pavilions.

Bathing Machine: A similar structure to a bathing box, used for changing into swimming costumes, but mounted on wheels so the wagon could be rolled into the water. Early bathing machines were often fitted with small hinged enclosures that could be lowered into the water as a protective fence from marine animals.

Baths: A building with baths or a swimming pool open to the public, although early to mid nineteenth century baths often were only fenced swimming enclosures. Early baths were segregated by sex, and some had multiple individual bathing enclosures. Mid to late nineteenth century bathing enclosures consisted of large horseshoe shaped pavilions housing change rooms which extended over the water, and in conjunction with an outer fence, provided enclosed swimming facilities.

Battery: An artillery mounting where cannons are lined up side by side.

Bethel Ship: Local Victorian term used to signify a vessel converted into a floating Mission to Seaman anchored in Hobsons Bay during the gold rush to prevent desertion ashore but continue religious services.

Beacon: A conspicuous mark used by mariners to aid safe navigation through unfamiliar waters. Beacons were situated either on land (e.g. stake, lighthouse, tower, church spire etc), or were piles, stakes driven into the seafloor or buoys moored over shoal water (De Kerchove 1961:49).

Beaching: Local term used by residents in the Maribyrnong Region to describe the stone embankment placed on the Maribyrnong River as a flood control measure to regulate the river's course in the 1930's.

Bond Store/ Bonded Warehouse: Public or privately owned warehouses, where goods attracting customs duties can be held until the customs duties owing are paid. Owners of private facilities were required to pay a bond as indemnity in case the goods were removed without paying customs duties (De Kerchove 1961: 82). These facilities were popular as they allowed importers and merchants to avoid paying the customs duties before the goods were sold, and were even sometimes paid for by the buyer.

Breaches Buoy: A buoyant life ring which was used in conjunction with a flying fox system to rescue shipwreck survivors from wrecks close to shore. The ring was fitted with a section shaped like a set of pants (the breaches), through which the victim inserted their legs and was hauled ashore.

Breakwater: A solid structure projecting from the shore or attached to a pier, which was used to provide shelter for vessels behind it.

Buoy: A floating object used predominantly to help mariners determine the navigable limits of channels and their fairways, and to identify submerged dangers and hazards such as wrecks, mined or torpedo grounds, telegraph cables. Early buoys were made of barrels or logs, with later buoys made of iron, steel, concrete or plastic, which were attached to the seafloor via an anchor and chain. Buoys are also used for everyday use by mariners to mark locations of anchors, fishing tackle etc. Lightship keepers use watch buoys to determine if their vessels were drifting off station (De Kerchove 1961:107; Kemp, 1992: 120).

Casemate: A system of artillery emplacements, where each gun is mounted within its own protective bunker/ surround.

Channel: The deeper part of a river, bay or estuary that is suitable for navigation (De Kerchove 1961:140).

Coff: Large wooden crate used for the underwater storage of live crayfish.

Compass Adjusting / Compass Swinging: Deviation is the error in compass readings caused by a vessel's own residual magnetism. To ascertain the magnitude of these errors, a compass would be adjusted or "swung" using a series of predefined lead marks along which a vessel could steer known magnetic bearings. Small corrector magnets were then placed at appropriate places around the ship's compass housing (the binnacle) to neutralise the effects of the vessel's own magnetic field on the compass readings (Kemp 1992:852).

Compass Adjusting /Swinging Buoys: A set of five buoys provided to assist a vessel for turning in a circle for compass adjustment or swinging. The buoys were arranged so that they are in line with magnetic range transit markers ashore. The ship's head was tied to the central large buoy (the swinging buoy), which served as the centre of the circle, and four smaller buoys each anchored at a cardinal point of the compass (e.g. North, South, East and West) were used to swing the ship's stern around by means of a stern line, thus enabling the vessel to calculate and compensate for magnetic deviation on four different magnetic directions or courses (De Kerchove 1961:812).

Corrugated Road: A road formed by laying timber planks or branches over swampy, muddy or submerged coastal areas. Used extensively in the timber industry to provide a solid base for carts to load/ unload timber transported via boats/ barges, and sometimes in shipwreck salvage operations.

Coverage: A term used to describe GIS cartographic layer.

Customs Duties: Taxes imposed by the government upon the importation and exportation of certain goods. These charges were levied as a means of revenue collection for the country/ settlement (De Kerchove 1961:193).

Customs House/ Tent: The office or place at a port at which customs duties are levied, and goods sometime held pending collection of customs duties (Pearsall and Trumble 1996:351).

Degaussing Range: During WWII, the magnetic field of an iron ship was used to detonate magnetic mines when a vessel passed above. An instrument called a degaussing range was used to removal the magnetic signature of an iron ships, thereby allowing it to proceed through areas suspected of containing magnetic mines. Spread over an area of around 1000m long, degaussing ranges consisted of a series of copper coils inside copper tubes, through which a current was passed to create a magnetic field. When a ship passed over the top of this instrument, it neutralised or changed its magnetic signature (Kemp 1992:238; Duncan 2003a:259-60).

Dock: An artificial basin provided with suitable installations for cargo transferral from floating vessels. The area of water in a port or harbour totally enclosed (on three sides) by piers or wharves. It is sometime loosely used to refer to the wharf structures themselves, and in the USA refers wharves and not the water. A dock may also provide access to rivers, streams etc, and may be connected to a lock structures for access further upstream (De Kerchove 1961:228; Kemp 1992:225).

Dock Gates: Gates fitted to the front of a dock to close the facility either for use as a drydock, as part of a lock system, or when the tidal rise and fall exceeds 10ft (De Kerchove 1961:228).

Dolphin: A free standing piled structure used either to support a pile light or as a pier, but which does not connect to the shore. A mooring post or pile, or buffer placed at the entrance to a dock, alongside a wharf to act as a buffer between the wharf and vessels. The term is also applicable to posts used for mooring in the middle of a river, stream, or bay where cargoes can be discharged without the use of a wharf or dock, often to small vessels acting as lighters. In the latter instance, the dolphin piles may be contiguous (in a line) and/or placed in a circle or rectangular arrangement, sometimes with a timber or concrete capping/ deck. This arrangement allows the unloading of the tied up vessels either directly to the dolphin (platform) or to lighters, while preventing the vessel from swinging around with the change of tide (De Kerchove 1961:228, 581). A large wooden post or collection of piles used for a beacon is also known as a dolphin (Kemp 1992:258).

Dredge: The act of removing sediment and submarine obstructions to increase water depth and improve navigability of those waterways for mariners (De Kerchove 1961:240).

Dry Dock: A watertight basin, with one open end to the sea that can be closed and sealed by a caisson, in which ships can be docked for repair, examination and cleaning of the underwater sections of the hull. After maintenance is complete, the caisson is flooded and the vessel floated out again (De Kerchove 1961:246; Kemp 1992:242).

Electric Light Direction Station (ELD): Military emplacement used to direct the beams of electric searchlights.

Explosives Store/ Depot/ Hulk: A place where explosives were stored to prevent accident discharges from injuring the public. All vessels entering Victorian Ports were required to discharge any explosives they carried for the duration of their stay, and these were stored in either explosives depots/ stores, or on explosives hulks located at safe distance away from the main populace.

Explosives Anchorage: An anchorage designated for vessels carrying explosives until they could be safely discharged.

Flagstaff: A pole on which flag is hoisted and displayed. Flagstaffs were often used to relay messages via coded signal pennants, and played also an important role in supplying navigational and other shipping information (Fanderlinden 1985:1.2)

Floating Dock: A platform used as a transportable dry dock to raise vessels out of the water for repair work. It is essentially a floating platform with watertight tanks, which are flooded to admit the ship, and then pumped out to raise the vessel and dock above the waterline. These structures were similar in use to graving docks, but had the advantage of being transportable to wherever they were required (De Kerchove 1961:294; Kemp 1992:316).

Fort: Enclosed gun position(s) and its associated components (i.e. range finding stations magazines etc) whose guns are all set at the same elevated level.

Fortress: An integrated system of enclosed gun positions which may be set on two different elevated levels and which are used to form an enclosed field of fire. A fortress may encapsulate a series of forts.

Gas Check Plate/Expansion Cup: Copper alloy circular plate placed between an explosive charge and the projectile in a gun/cannon. When the gun was fired, the cup expanded to provide a better seal in the bore allowing more efficient use of the explosive charge to propel the projectile further.

Geo-referencing: A process used with GIS software where an historic plan can be overlaid onto a modern chart, and real world geographic co-ordinates can then be extracted from the historic map.

GIS: Geographic Information System. Computer software used for storage and analysis of locational geographic data.

GPS: Global Positioning System that uses satellite signals for navigation.

Graving Dock: A permanent dry dock made with wooden, stone, or concrete walls, used to conduct vessel repairs and maintenance on the hull, as opposed to where ships are built (De Kerchove, 1961: 336). There are two types of graving dock. The earliest graving docks were facilities where a vessel could be securely tied alongside a dock, and the vessel's lower hull accessed as the tide fell. Permanent graving docks use watertight gates to allow vessel access, which are then closed and the water pumped out after which the vessel rested on keel blocks (Kemp 1992: 351).

Groyne: Any structure projecting from the shoreline designed to reduce the effects of current/ sea/swell on the foreshore, to act as a protective mechanism for harbour entrances or used as a breakwater (see also *Breakwater*).

Hot Water Baths: Enclosed baths, usually attached to seas baths, which provided hot water bathing facilities. These structures appear to have usually been small subsidiary enclosures situated over the water which were attached to the larger sea baths complexes via a narrow walkway.

Hulk: An old ship converted for another use that did not require it to move. These uses include modification into prisons, explosives stores, warehouses, and churches (see Bethel Ship) (Kemp 1992:406).

Immigration Depot: The office charge with the processing of new immigrants.

Jarrah: A Western Australian hardwood timber that was particularly suited to boatbuilding and/or building construction owing to its density and strength.

Jetty: A solid (enclosed at water level) structure built out into the sea or waterway, constructed from stone, concrete, or any other solid building material that does not allow water to pass through its construction. Some jetties were named piers, particularly where two of them may form the arms embracing a small harbour. Open structured oil loading facilities were often called jetties, even though they are technically piers (Kemp 1992:647).

Knot: Nautical speed measurement equal to one nautical mile per hour

Lagan: Buoyant material deliberately thrown overboard from shipwrecks by salvors for later collection from known flotsam traps.

Landing: Abbreviated form of landing stage, often built onto the sides of piers or jetties, where the main pier/ jetty is too high to accommodate the smaller vessel, or to facilitate the changing height of the vessel berth due to tidal influences.

Landing Stage: A platform, often floating, where goods and passengers are often disembarked (Pearsall and Trumble 1996:803)

Landing Pontoon: A floating platform usually anchored off the edge of a wharf or pier, for the landing and embarking of ferry passengers or goods from a vessel (De Kerchove 1961:433).

Leading Lights: Two lights used for navigation that are placed in a line to indicate a course to steer, or a danger to avoid. The rear light is higher than the foreground light, but in the same vertical plane as the lower one. When the lights are sighted one above the other, they indicate the course of the safe passage/ channel through a constricted waterway (De Kerchove 1961:634).

Leads/Lead Markers: Using the same principle as leading lights, two distinctive markers are placed in prominent positions either on land, at sea, or a combination of both to aid navigation through constricted waterways. Lead markers often double as leading lights (Kemp 1992:472)

Lifeboat: Vessel used during rescues of shipwreck survivors. These vessels were normally purpose built, with inbuilt flotation tanks and were self-righting.

Lifeboat Shed: A boatshed built on a pier to allow a lifeboat to be quickly launched when needed. Original versions house the lifeboat on davits, which was lowered into the water via rope falls, but later versions used an inclined ramp where the boat slid down the launchway to enter the water.

Lifesaving Rocket: A small rocket which used an explosive charge to pass a rope from the shore to shipwrecked vessels offshore. This line was then used establish a flying fox system that was used to rescue shipwreck victims, who were hauled ashore in a breaches buoy.

Lighters/ Lighterage: A vessel used to transfer cargoes between a vessel and the shore (De Kerchove 1961:454).

Lightship: A vessel used to operate as a lighthouse in areas where it is impractical to build a lighthouse (Kemp 1992:484). Lightships have also been found to be the forebears of lighthouses

(see Appendix F-4), installed as temporary navigational facilities before infrastructure and funding was available in the Victorian Colony to build lighthouses. Lightships serve as a beacon by day and a guiding light at night (De Kerchove 1961:455).

Launching Ways: The structure built on top of a slipway, which was used to launch vessels. Timber or iron rails were used on slipways to launch vessels either on cradles or keel blocks, also called sliding/ standing ways (Kemp 1992:809; De Kerchove 1961:438).

Marryat's Signals: A code of signals developed by Frederick Marryat in 1817 which were used for mercantile marine signalling. The signals later became the basis for the International Code of Signals (Kemp, 1992:417, 529).

Militia: A paid volunteer force that was used to supplement the regular defence forces.

Mooring / Mooring Buoy: A permanent buoy used by vessels to secure a ship in place instead of using their own anchors. The buoy is secured to the seafloor with a length of chain attached to two or more anchors, and are used particularly where there are hazards to anchoring (e.g. dangers of anchor entanglement, unexploded ordinance) or many vessels using a confined space that is subject to tidal movements (De Kerchove 1961:107; Kemp 1992:120, 559).

Palliser Shot: A new type of armour piercing ammunition introduced in the 1870s/80s, provided an effective defence against ironclad technology.

Pier: An open (at water level) timber, concrete or iron structure, usually supported with wooden piles, projecting out into the sea at seaside resorts as an attraction to holiday makers and for excursions steamers to come alongside (Kemp 1992:647). Piers in the Victorian context usually refer to timber open (at sea level) structures built with piles, and are not exclusively used for seaside recreation. Modern open sided piers associated with oil transportation are sometimes locally known in Melbourne as jetties (Kemp 1992:647). A pier has also been defined as a sheltering structure built out from the shore to protect a river harbour (De Kerchov 1961:580), but this definition was not used in this study which instead used the term *training wall*.

Pile: Heavy timber (often a tree trunk) driven vertically into the seabed to support the foundations of a superstructure (Pearsall and Trumble 1996:621)

Pile Light: Local Victorian term used to describe lighthouses built on dolphin platforms structures, often miles from land in the middle of Port Phillip Bay. These structures were manned by crews of up to three lightkeepers, and in later years often with their families.

Open Lead: A lead bearing where the background lead must be kept clear (or open) of the foreground lead marker in the direction given in order to clear a known hazard. Often two open lead marks were given to ensure safe passage through obstacles on either side of a channel.

Queenscliff: Refers to the peninsula central township (known in its formative years as Shortlands Bluff) whose boundary is defined as the entrance to “the Narrows” causeway to the east of the Springs.

Queenscliffe: Refers to the Council Borough, whose area includes Pt Lonsdale.

Quarantine Anchorage: An area set aside for the anchorage of vessels where crew and passengers exhibiting signs of disease could be isolated until inspected and/or cleared by the Quarantine/ Customs Officer

Quarantine Ground/ Station: A location where ships' crew and passengers exhibiting signs of disease could be isolated from the settlement's general population pending their recovery or death.

Rifled Gun: A new gun type introduced in the mid nineteenth century where the bore of the gun was contained rifling grooves, which spun the projectile as it left the gun, thus increasing its range.

Rocket Shed: Shed used to house explosives associated with lifesaving rocket equipment used in shipwreck rescues.

Sand Groyne: A solid structure projecting from the shore, which is designed to break the current and inhibit erosion and encourage sand accretion, thereby increasing shoreline deposits of new material. Groynes are usually low profile timber frameworks (similar to low solid fences) or low walls made of timber, stone, concrete or any solid material (De Kerchove 1961:338; Pearsall and Trumble 1996:621).

Shortland's Bluff: Originally referred to the small settlement (which later to become to the township of Queenscliff), but after town declaration specifically denoted the knoll at the south western corner of the peninsula.

Slack water: The period of the peak and troughs of tides, at the change of tide, where little or no tidal current runs.

Slipway: The sloping foreshore in a shipbuilding yard where foundations exist for launching and retrieving vessels either during maintenance or construction. A slipway is usually fitted with parallel timber or iron rails (called ways) set on an angled solid foundation ramp of stone, gravel or concrete. The angle of the ramp is sufficient to enable the transferral of the vessel into the water by gravity, once any holding appliances are removed (De Kerchove 1961:747; Kemp 1992:809).

Smooth Bore Gun: An old type of gun design where the inside bore of the gun was smooth, and did not rotate the projectile, thus limiting its effective range.

Stranding: An event where a ship runs aground, but is later refloated.

Submerged Causeway: A submerged naturally occurring hard ridge on the seabed, or artificially constructed track, that was used to traverse across small bays or to access islands via carts or by walking.

Swing Basin: An artificially excavated area used to turn vessels around within the confined waters of a river or stream.

Tidal Gauge: A graduated staff erected at the end of a wharf or pier in communication with the open sea from which the rise and fall of the tide can be determined at any given moment (De Kerchove 1961:836). These facilities were important for calculating water depths and the safe navigation of shallow and tidal waters.

Timeball: A ball dropped from a staff at an observatory to signify the arrival of a pre-arranged time. This facility was used to reset chronographs on board vessels in the harbour, and used for the

calculation of the tides and navigation in general. The timeball was generally situated at a high location within view of the harbour (De Kerchove 1961:838).

The Rip: The stretch of water between Pt Lonsdale and PT Nepean, and up to 100m offshore, which when effected by the changes in tidal direction produces highly disturbed conditions.

Torpedo: This term was initially used to describe static explosive devices moored to the seabed as anti-shipping devices. With the introduction of the motorised Whitehead torpedo in 1877, the former gradually became known as sea mines.

Torpedo Depot: A facility used to assemble, prime and store torpedoes and underwater mines.

Torpedo Spar: A torpedo or explosive device attached to a timber beam that was rammed against the side of an enemy vessel to detonate it.

Training Wall: Historic term used in several plans found in the study area to signify paired stone jetties utilised to reduce sand build-up around the entrances of newly created dock areas and canals.

Walings: Vertical planks installed along the outer edge of a pier as rub rails to prevent damage to the pier and vessels.

Wharf: A structure built of timber, stone, iron or concrete parallel to the shore or on the banks of an anchorage close with deep water alongside to enable vessels to moor alongside. These structures are sometime also called quays, but these are generally built only in stone (De Kerchove 1961:914; Kemp 1992:936).

Yawl: A two masted, cutter rigged, large open boat where the mizzen mast is mounted abaft the rudder head. The vessels were most often clinker built, double ended, long and lean, with long fine entry and run (Malster 1974:30-34).

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Personal Communications/ Oral History Interviews

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