How are Shipwrecks Represented in Australian Museums?
The Investigation of Museum Workers, Exhibitions and Visitors.

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Abstract

This thesis has been completed for the purpose of gaining a comprehensive analysis of how shipwrecks are represented in Australian museums through physical and cognitive means. Shipwrecks contain important information about the coastal culture of Australia and they are an important attraction for museums. Fifty-six Australian museums contain information and/or shipwreck cultural material using a variety of representation methods. Through the personal examination of shipwreck exhibitions and displays in twenty-nine museums, generalised categories of representation were deduced using specific examples from the field. Qualitative self-completion questionnaires investigated the differing perspectives of the museum workers and the museums visitor. They revealed the generalised views of museum workers and museum visitors in regards to shipwrecks and maritime archaeology. Key findings included: a diversity of museum representations works effectively in the Australian context; protective legislation is in place and is having a positive impact; maritime archaeology is a recognised profession that is playing a valuable role in the preservation and promotion of Australian heritage; and there is room for improvement in the link between museum workers and museum visitors. These impressions provide important background information in which to establish effective communication between museum workers through the exhibition to the visitor. The end result is a useful resource for all museums to evaluate the success of their current shipwreck related exhibitions and to assist in the preparation of future exhibitions on this important subject in Australian history.
Declaration

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

Signed

Date
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By necessity, this thesis has relied on input from many people – museum professionals and visitors, university staff and students and friends and family. Without their contribution the research would not have been possible, and for that I am indebted to them.

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Finally, and most importantly, I would like to acknowledge the guiding force that is my thesis supervisor, Associate Professor Mark Staniforth. He suggested this thesis topic and has been a source of information and encouragement. Thank you for all of your support throughout this long but rewarding process.
Glossary


**Accreditation** – the official recognition that a museum has reached certain agreed standards.

**Acquisition** – the transference of ownership of an object into the museum’s jurisdiction.

**Artefact** - a two or three dimensional object that has been selected, altered, used, or made by humans.

**Artefact Label** – short text panel with the basic descriptive information for the artefact. The last level in the four tier label hierarchy.

**Cabinet** – a piece of exhibition furniture that has drawers or shelves and sealed doors. For the protection of artefacts from the elements as well as for display and/or storage of artefacts.

**Case** – a piece of exhibition furniture that encloses a space for the display of artefacts, and that has an internal lighting source.

**Collection** - an identifiable group of artefacts with a common theme or link such as provenance, material type or purpose.

**Concept-oriented exhibition** - a museum exhibition with the main focus being the transmission of information with collection artefacts in a supporting role if used at all.

**Didactic exhibition** – a museum exhibition with the main focus on the instructive transmission of information.

**Diorama** – a three-dimensional miniature scene illustrating a theme or idea within an exhibition.

**Display** - a relatively small defined space in which exhibition elements, information and artefacts represent a cohesive and recognizable message or idea with a specific title.
Docent – a front of house museum staff member that provides lectures or guided tours of the exhibitions.

Exhibit collection – objects specifically for use in an exhibition.

Exhibition – a defined space in which exhibition elements, information and artefacts represent a cohesive and recognizable message or idea that is created for the purpose of education, learning or enjoyment.

Exhibition Element – a physical structure to assist in the presentation of artefacts and information in a museum. Can range from a simple room divider or a complex integrated artefact case.

Extended Label - provides additional information to that on the identifying label such as: the artefact’s use, role in history, development of the object’s typology, human story related to the object etc…

Fabrication – the process of creating the physical elements and pieces needed for the presentation of collection objects in an exhibition.

Identifying Label – the basic information required for every artefact on display supplying the following information: name of object, construction material, provenance including shipwreck name, and date.

Interpretation - the act or process of explaining or clarifying, translating, or presenting a personal understanding about a subject or object.

Interpretive Exhibition – “tell stories, contrast points of view, present challenging issues or strive to change people’s attitude.”

Intrinsic value – “the inherent worth of a document based upon factors such as age, content, usage, circumstances or creation, signature, or attached seals.

Introductory label – a panel of text at the beginning of an exhibition with an explanatory text summarizing the main ideas of the exhibition, second level of the four tier label hierarchy.

Museum - “a museum is a non-profit-making, permanent institution in the service of society which acquires, conserves, researches, communicates and exhibits, for purposes of study, education and enjoyment, material evidence of people and their environment.” (ICOM 1990)
Museum curator – a trained, paid professional with a degree in museum studies, history, archaeology or conservation. Tasks: designs and organises exhibitions, interprets artefacts, manages museum collection, arranges education programs.

Museum custodian – a paid or volunteer museum staff member that may have specific training in museum work or may be skilled through experience. Tasks: ensures the functioning of the museum – ticket sales, cleaning etc… Does not create exhibitions or deal with artefacts.

Museum director – a trained, paid professional with a degree in museum studies, history, archaeology, business or management. Tasks: manages the museum, may have limited contact with museum collection.

Museum worker – a generic term for a person that is employed by a museum and may be paid or a volunteer. May have skills in museum work through training or experience. Tasks: may organise and design exhibitions, arrange education programs, act as a tour guide (depending on the size and funding of the museum).

Object-oriented exhibition - a museum exhibition with the main purpose of presenting artefacts to the public with limited interpretation.

Open storage - the practice of placing stored collections on public view without interpretation or planned educational content.

Product-oriented activities - exhibition development efforts concerned with collection objects and interpretive aims.

Provenance/provenience – the original location from where an artefact was discovered.

Section label – interpretive label for a group of artefacts, third level in the four step hierarchy of labels.

Shipwreck – a waterborne vessel that has either been accidentally or purposely damaged to render it useless for its purpose of floating on the water’s surface for whatever function it was intended – cargo, passenger, transport etc…

Shipwreck artefact – “an object, or part of, which formed part of, to have been installed or carried on, or to have been constructed or used by a person associated with, a vessel whether it is present on the shipwreck or has been removed.” (Commonwealth Historic Shipwrecks Act 1976).
Subtitle an intermediate level or written information graphic, usually larger in typesize than a text block, and used to differentiate or emphasise subgroupings within an exhibition.

Tableau – a life size reproduction of a scene using contemporary artefacts to illustrate a theme or idea within the exhibition. Can use human models for dramatic effect.

Tactile exhibition – a museum exhibition that is designed to be touched.

Tag – a small label of paper, plastic or metal that identifies and gives information about the object to which it is connected.

Text or text block – a written graphic that aids in the interpretation of groups of objects or exhibition sections

Thematic exhibition – a museum exhibition with the main purpose of presenting a theme with artefacts and information selected based on this theme.

Title sign - a graphic, often combining both text and pictorial design elements, usually place at the entry to a gallery to attract attention and to announce the title of the exhibition. First level of the four tier label hierarchy.
Museum Codes

M001 - Museum and Art Gallery of NT
M002 - Museum of Tropical Queensland
M003 - Maritime Museum of Townsville
M004 - Miriam Vale Shire Museum
M005 - Queensland Maritime Museum
M006 - North Stradbroke Island Historical Museum Association
M007 - The Tweed River Museum
M008 - Ballina Naval and Maritime Museum
M009 - Headland Historic Museum
M010 - Port Macquarie Maritime Museum
M011 - Great Lakes Historical Society Museum
M012 - The Maritime Centre Lee Wharf
M013 - Sydney Heritage Fleet
M014 - The Rocks Discovery Centre
M015 - Museum of Sydney
M016 - Australian National Maritime Museum
M017 - La Perouse
M018 - Kiama Pilot’s Station Cottage
M019 - Lady Denman Heritage Complex
M020 - Eden Killer Whale Museum
M021 - Port Albert Maritime Museum,
M022 - Nepean Historical Society Museum,
M023 - Melbourne Maritime Museum,
M024 - Queenscliffe Maritime Museum,
M025 - Geelong Naval and Maritime Museum,
M026 - Flagstaff Hill Maritime Village,
M027 - Portland Maritime Discovery Centre
M028 - Port MacDonnell and District Museum,
M029 - Millicent Museum,
M030 - Old Wool and Grain Store, Beachport,
M031 - Old Customs House, Robe,
M032 - Goolwa National Trust
M033 - Port Elliot Historic Railway and Seaport Centre,
M034 - Encounter Coast Discovery Centre,
M035 - Penneshaw Maritime and Folk Museum,
M036 - Hope Cottage,
M037 - Willunga Courthouse Museum,
M038 - South Australian Maritime Museum,
M039 - Androssan Historical Museum,
M040 - Stansbury Museum,
M041 - Edithburg Museum,
M042 - Port Victoria Maritime Museum,
M043 - Wallaroo Heritage and Nautical Museum,
M044 - Whyalla Visitor Centre and Maritime Museum,
M045 - Axel Stenross Maritime Museum
M046 - Shipwreck Galleries
M047 - Western Australian Maritime Museum
M048 - Gloucester Lodge Museum
M049 - Irwin District Lodge Museum
M050 - Western Australian Museum Geraldton
M051 - Shark Bay Museum
M052 - King Island Historical Society Museum
M053 - Devonport Maritime Museum
M054 - Pilot Station and Maritime Museum
M055 - Queen Victoria Museum and Art Gallery
M056 - Maritime Museum of Tasmania
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1. Introduction

"Shipwrecks have an undeniable public appeal and are an important aspect of modern tourism." (Nutley 2001:272)

Shipwrecks in Australia

Australia is a country with a prominent maritime history. There are 7,400 shipwrecks recorded around our 60,000 km coastline and the majority of Australians live in coastal regions. Maritime matters are an important part of our heritage and it is the responsibility of museums to inform society and preserve maritime cultural heritage for the benefit of present and future generations. While there are many topics to be covered by maritime oriented museums, it is the subject of shipwrecks that captures the imagination of the general public and produces stories of tragedy and loss, triumph and heroism, the best and the worst in people and with the heightened emotion allows a glimpse back into a time long past (Coroneos and McKinnon 1997:1). This is why an examination of how shipwrecks are represented in museums is a valid and important topic of study for the benefit of the museum going public, and the museum world.

How shipwrecks are represented in museums is an important and poorly studied area of research within the archaeological, historical, and museological spheres. This study examines both ends of the museum experience; the museum practitioner and the museum visitor. Both of these groups of people have preconceived ideas created from their interactions with the world, from their own study and experiences. Although it may seem as if the museum professional would be the dominant participant in this relationship, the museum visitor also has an influence on the way museums operate and design their displays. For without a visitor, the museum has no purpose and therefore enticing the museum visitor is an influencing factor for any responsive exhibition designer. This project will examine the whole museum experience from the creative museum practitioners who constructed the displays, through the museum exhibitions themselves, and finally the visitors who both absorb and influence the communicated information.

The approach taken in this thesis is to examine how shipwrecks are represented in museums to determine the message displayed in the exhibition, and the effectiveness
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in conveying the curator’s ideas to the museum visitor. To achieve this purpose, there were two questionnaires distributed to investigate the different participant groups and their views. Firstly, there was a questionnaire to examine the visitors’ understanding and appreciation of shipwreck cultural material in museums. Secondly, there was a questionnaire sent out to Australian museum curators to evaluate their opinions concerning the representation of shipwrecks in museums. To provide background information with which to interpret this data, twenty-nine museums have been visited by the researcher to evaluate what shipwreck artefacts are on display and how these displays were created. The museum staff were also interviewed to find out how the museum operates. These methods of data collection were then collated and evaluated to draw conclusions about the representation of shipwrecks in museums and the ideas conveyed through these exhibitions.

Aims

While the question that is the focus of this study might seem simple and straightforward, there are many complex contributing factors, as is the nature of museums. The most obvious, straightforward and easy to complete task involved in this research is to qualify the methods in which information concerning shipwrecks is translated to museum visitors through the physical means of museum displays. A more difficult and elusive task is to evaluate which methods of presenting shipwreck information is most effective. It is difficult because it involves quantifying the perceptions, thoughts and responses of museum visitors. Other more cognitive sections of this research involve ascertaining the general viewpoints of museum workers and museum visitors concerning shipwrecks.

It is predicted that once the above tasks have been completed and the data analysed, this research will produce a source of information concerning the preferences of museum visitors that can be used as a reference for museums to improve or validate their exhibitions on shipwrecks. By examining one aspect common to many museums of the maritime persuasion there can be a standard recognised so that museums can see how they compare to others. This research will enhance the quality of museum design and education concerning shipwrecks and in doing so will benefit the archaeological community.
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Significance of the Study

This is an important area of study as it will evaluate the effectiveness of previous and current museum exhibitions with the results of benefit to the success of future museum exhibitions. It will also assess the representation of maritime archaeology through shipwrecks as opposed to history through shipwrecks. Though this is an important area of research there has been no definitive study on the topic.

The research objectives of this project are to obtain a well balanced evaluation of the representation of shipwrecks in museums from the perspective of the museum visitor and curator.

This area of research has already gained interest from the museum world. A preliminary presentation on the representation of shipwrecks in museums was given at the joint Australian Archaeological Association and Australasian Institute for Maritime Archaeology Conference in Fremantle in November 2005. During question time after the presentation, the enthusiasm of some of the two-hundred strong audience was apparent. Conference attendees most obligingly contributed to the list of museums containing shipwrecks when requested. Many participants asked to be informed of the results of this study. Clearly, it is a topic of interest to many within the archaeology, history, museum community.

Constraints

This is a massive area of research that cannot be completely covered in this thesis. Therefore, the analysis will focus on objects, as these are the most important aspect of museum displays - although other aspects such as exhibition design and interpretation will also be covered in less detail. The data resource upon which this research is based is exhibitions available for viewing by the public within the last two years - that is the lifetime of this research. It is noted that different exhibitions have had different installation times and lengths of stay at certain museums. Some exhibitions are permanent, others temporary and others traveling. All of these have their own influences and strengths and weaknesses however they are outside the scope of this research. Some of the exhibitions that are described in this thesis are no longer on show due to renovations while other that were once closed are now on display.
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Limiting Factors

It must be noted that every attempt will be made to reduce all biases from this research, however the total removal of influencing factors is almost impossible as every individual is the result of their social environment. This is an archaeological study of a group of museums that are mainly classified as ‘social history’ museums though there are some archaeological elements throughout. If this research were to be completed by someone of a social historical or a museological background then some conclusions would be quite different while others would remain the same.

In the process of this research, the author has sought to gain an understanding of the people involved in creating the museum exhibitions because these people put their own world views and interpretation on the exhibition and this is a biasing and effecting force which is attempted to be captured to a limiting effect though museum evaluation.

Development of Shipwreck Collections in Australian Museums

"The emergence, development and organisation of museums makes interesting reading. It is largely a story of continuous development to meet changing social needs without overall strategic planning. The result is a fascinatingly variegated, some would say idiosyncratic, museum scene." (Lewis 1992:3)

To examine how shipwrecks are represented in museums, the history of how museums with shipwreck collections came into being in Australia must be taken into account. Shipwreck artefacts have been salvaged by private collectors in Australia since the first shipwreck occurred, and collections of shipwreck artefacts have been assembled by interested people and made available for public viewing since the late 1800s. The majority of shipwreck artefact collections have occurred in a random manner with no clear purpose but for the intrinsic novelty and curio value. Fortunately, there have been a handful of museums established with clear acquisition policies in regards to the collection of shipwreck artefacts and these institutions have been the strength and guiding force of other less well organised museums with similar interests in relics of seagoing disasters.
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The first collection of objects in Australia that contained a large number of shipwreck artefacts was established in 1872 under the title of the Port Adelaide Institute. Seafarers that frequented Port Adelaide needed a place to house their relics and curios collected on their travels. This collection is now part of the South Australian Maritime Museum [M038] (South Australian Maritime Museum website).

A series of major events in the development of museums, shipwrecks and maritime archaeology occurred in Western Australia in the 1960s. The discovery of five Dutch East India Company (VOC) shipwrecks led to the Western Australian Museum expanding its interests to include shipwrecks and maritime archaeology (Hosty 2006:155) and thus the Shipwreck Galleries [M046] were established in 1979 and the New Western Australian Maritime Museum [M047] (Western Australian Maritime Museum n.d.).

Also starting in the late 1960s was a movement for communities to establish local museums as it was realised that regional history needed to be preserved. Goolwa Museum [M032] is an example of this phenomenon as are the National Trust museums at: Beachport [M030] (1971) and Robe [M031] (1980) both of which were established by concerned locals. Similarly, the Axel Stenross Maritime Museum [M045] opened in 1980 as a memorial to the renowned boat builder.

In 1982, the Queensland Museum followed a similar development path to that of WAMM but with the Pandora shipwreck instead of the VOC wrecks (Gesner 2000:34). After five seasons of work on the Pandora and a large amount of government funding and public support, the Museum of Tropical Queensland in Townsville [M002] was refurbished in 2000 to house a permanent exhibition of Pandora artefacts (Gesner 2000:50).

In 1984, the New South Wales and Australian Governments recognised the need for a national centre for maritime heritage awareness within the community. The Australian National Maritime Museum [M016] was opened in 1991 for the purpose of housing, conserving, and displaying maritime cultural material as well as providing an enjoyable and education space for local and international visitors to learn about Australian maritime matters and acting as an Australasia advisory institution (Hosty 2006:152-3).

In general, museums containing shipwreck artefacts have become established in one of three ways. The majority of museums have begun in a haphazard manner with the
collections of seafarers and maritime enthusiasts being drawn together or donated, and turned into a museum collection. Another method of museum formation is through the impetus of concerned locals with a desire to preserve their heritage which included shipwreck artefacts as well as an assortment of other historic objects. Finally, state governments have seen the need for museums to be actively involved in maritime archaeology and history and have overseen the development of maritime archaeology, history and conservation departments to be set up within museums or entirely new museums established to serve this specific purpose.

**Definitions**

**Shipwreck Debate**

The definition of a ‘shipwreck’ is a difficult but necessary task to complete for clarity of this study. The most common and yet imprecise description is ‘the destruction or loss of a ship, as by sinking’ (Delbridge 2001). This does not account for all the varied ways and means that a ship ceases to function as a floating vessel. Events that can be classified as a wreck include: stranding, scuttling, abandonment, abandonment and subsequent restoration, wrecking and ensuing salvaging and partial salvage. Would any of these situations result in the production of shipwreck cultural material suitable for display in a museum? Perhaps a more important question is – do museum visitors consider any of these scenarios as a shipwreck?

The Commonwealth *Historic Shipwrecks Act 1976* is likewise all encompassing but not detailed enough for these purposes:

“The hull, or remains, of a vessel used in navigation by water which has become a total loss through stress of weather, stranding, collision or any other cause, whether it lies on the bottom of the sea or on shore, buried or exposed.”

For this research it appears necessary to have two definitions of a shipwreck; an academic and a public definition. This suggests that perhaps it is essential to educate the public in this area. The academic definition of a shipwreck is a vessel that has been accidentally or purposefully destroyed by environmental or human means so that it is rendered useless for floating on the surface of the water. There is still the possibility of a shipwreck being raised or salvaged and restored to its original
purpose or for a new purpose. The layman’s definition of a shipwreck should leave out the last section of the restoration into another ship as this is not in public acceptance. Therefore, if it looks like a ship that could float, it is no longer a shipwreck in the public’s eyes.

**Representation Definition**

Another clarification to make is what exactly is meant by the term ‘represented’ because this is the key to this research. It is the way in which information pertaining to shipwrecks is made available for public viewing in the museum. The methods of representation are important because this is how the museum visitors learn about shipwrecks and all associated information that is related to this topic. Represented means - how the modern visitor is transported back in time to experience the tragic events in the past. These methods will be outlined below in the results section.

**Exhibition Definition**

Exhibitions are a formal communication method in the public domain. They are large scale presentations of information using three dimensional means usually visual but sometimes tactile and sound. Exhibitions are a structured arrangement of objects and texts providing a comprehensive understanding of the context, meaning, importance, history, and manufacture of these objects. Information is presented to create an emotional and cognitive change in the observer through the museum experience (Edson and Dean 1994:149). Refer to the glossary for differences between exhibition and display.

**Thesis Structure**

**Previous Research**

In this chapter, the previous research into the various elements of this thesis will be outlined. It will cover: the significance of shipwrecks, the purposes and ideal practices of museums, different types of museum workers, visitor evaluation and the differences between archaeological and historical museums. Ultimately this chapter will establish that although there has been much research completed in the different components contributing to this thesis, there have been no specific studies into the
Chapter 1. Introduction

examination of how shipwrecks are represented in museums therefore justifying the importance of this research.

Methodology

The methodology chapter will describe the three stages of the thesis and the tasks that were completed in each to ensure a comprehensive study. First, the museum database and museum visits will be outlined to demonstrate how shipwrecks are physically represented in museums. This will be followed by a summary of the creation and distribution processed of the two questionnaires. Therefore, a complete understanding of how this project will be enacted will be comprehensible.

Results

This chapter will summarise the data collected that was used throughout this project. The methods of shipwreck representation will be explained and illustrated by photographs taken in the field. Then the worker and visitor questionnaire responses will be outlined in percentage format so that major trends will be evident. All of the information gathered throughout the study will be explained in preparation for the analysis that follows.

Discussion

In this chapter, the information summarised in the previous results section will be analysed for trends and differences. By utilizing the physical evidence from museum visits along with the two sets of data from the workers and visitors, the most effective methods of representing shipwrecks in museums will be revealed.

Conclusions and Future Applications

This thesis will finish with a summary of the major findings and how these will benefit the archaeological and museological community when a summary of the thesis is sent to all participating museums and other interested parties.
Chapter 2. Previous Research

2. Previous Research

Introduction

The subject of this thesis – the representation of shipwrecks in museum – is entirely original; no research has been completed previously on such a specific topic. However there are studies in related areas that can provide background information with which to put the current research into perspective. The following paragraphs will summarise the areas of research that are relevant to this thesis. These being: the significance of shipwrecks, purposes and practices of museums, museum workers and volunteers, visitors, visitor evaluation and the differences between archaeological and historical museums.

Significance of Shipwrecks

"Shipwrecks are objects of the past located in the present" (Coroneos and McKinnon 1997:1)

Shipwrecks have contributed to a large section of Australian history and therefore form a significant part of our national identity. Early explorers came in ships that often became wrecked, trade and immigrant ships were lost on these shores (Staniforth 1993:305) and most recently, multiple shipwrecks in the Sydney to Hobart yacht race stopped the nation as breaking news was awaited. Gibbs (2005) explains the multiplicity of this maritime involvement and laments the poor dialogue of this issue in academic circles.

Shipwrecks’ Roles in Museums

Museums provide a link between the public and the physically inaccessible shipwrecks. As a significant part of our heritage, shipwrecks must be available to the public that owns them. Although some shipwrecks occurred on the inter-tidal zone, the majority of shipwrecks are located underwater making them inaccessible to the majority of Australians who cannot dive (Gibbs 2005:61). Therefore, museums are the only place where Australians can physically encounter a significant part of their heritage. This role was vigorously attended to in the early years of SCUBA access to the underwater zone, with museums actively raising shipwrecks and associated
Chapter 2. Previous Research

artefacts for the benefit of their visitors. Since the 1990s there has been a shift to in situ preservation of shipwrecks that does not bode well with avid land-lubbing maritime enthusiasts nor the majority of the museum going public. However, it should not be necessary to have entire shipwrecks on display in museums, with the proper interpretation of smaller artefacts able to satisfy the most die hard shipwreck fanatic. If museum workers can inform visitors on the reasons for in situ preservation through exhibitions, then museums will be fulfilling their role and the community will appreciate this non-renewable resource on a new level.

Purpose of Museums

"Museums are at their best and most distinctly themselves when they deal with "stuff". (Weil 1995:xv)

Museums are defined by many different codes and constitutions, but essentially they serve to “perpetuate memory in external deposits” (Lake 2006:2) by preserving evidence of the human past for the benefit of present and future humanity.

The International Council of Museums (ICOM) perhaps has phrased their definition in the most comprehensible terms. According to their Code of Ethics (2004), a museum is -

“a non-profit making permanent institution in the service of society and of its development, open to the public, which acquires, conserves, researches, communicates and exhibits, for purposes of study, education and enjoyment, the tangible and intangible evidence of people and their environment.”

This definition states the five key elements of a successful and reputable museum. These are: acquisition, conservation, research, communication and exhibition. The purpose of these five key elements is to study, educate and enjoy. However this does not emphasise the importance of the objects which are the basis for all museums.

These are all important factors, but the focus of this particular piece of research is the exhibition and communication sections, these are paramount. The other elements of a successful museum – acquisition, conservation and research all have an influence on the end result which is a publicly accessible exhibition. The acquisition policies often provide historical information about the object or at least a personal story of
Chapter 2. Previous Research

previous owners and users. The conservation determines how long the object will ultimately be in the collection and the research provides the all important

Edson and Dean (1994:148) describe the museum as an iceberg, most of the mass is unseen below the waterline. This thesis mainly examines the visible section of the iceberg which is the public front, but acknowledges the contribution that the rest of the iceberg/museum makes in supporting the front-of-house elements including the exhibition design process.

Museum Objects

"Real objects are the essence of museums” (Belcher 1992:652)

At the core of all museums is their object collection. These artefacts are the basic unit of the museum and what the workers should base their exhibitions on and what the people come to see. Artefacts have been gathered from many different locations, but more importantly, they have been removed from their original useful context and placed into the artificial museum environment (Maleuvre 1999:1). It is the role of the museum to restore some of the sense of the context for the greater understanding of the museum visitor. While artefacts are the core of the museum, the visitors could be considered as the focus. The priority of practitioners is now on instruction, education, and enlightenment using these objects for this purpose. Museums are no longer cabinets of curiosities; they are education and entertainment venues (Edson and Dean 1994:6).

Museum as a Communication System

There is a popular analogy of the museum as a communication system where the worker is the transmitter of information, the exhibition is the communication medium and the visitor is the receiver (Edson and Dean 1994:152-3). As long as the worker and visitor are using the same vernacular (the common language of English does not mean comprehension) then this should be a successful communication system (Pearce 1996:162). However Pearce does not develop this idea further as Hooper-Greenhill(1994:47) has done, where the communication system is reciprocal with the visitor communicating back to the worker whether through interactive exhibition elements or through evaluation techniques.
Chapter 2. Previous Research

Background to Museum Studies

Library shelves are laden with books under the heading of ‘museum studies’ and many articles have been written about maritime museums but there has not been any study on the topic of shipwrecks in museums. Among the museum studies subject area there are theoretical books discussing the ‘why’ of museums and there are the practical books discussing the ‘how’ of museums. There are also discussions of these issues in ‘Museums Journal’, published conference proceedings and online articles available through museum association websites such as Museum Australia. Most of these resources tend to deal with the broader overarching museological ideas and methods or analysis on specific museums or exhibitions. Therefore, this current study into the representation of shipwrecks in museums is in exclusive company, for the moment.


There are many handbooks on how to create, manage and operate a museum (Ambrose and Paine 1993, Bennington 1985, Edson and Dean 1994 and Heathcote 1997) and include suggestions for methods of exhibition design some written in technical language and others in more understandable instructive language. These books provide a comprehensive resource and storehouse of knowledge.

There are several publications on the subject of maritime archaeology and museums (Henderson 1990 and 1993, Hosty 1995 and 2006, Johnson 1993, Stanbury 1991, Staniforth 1993). Although these mention shipwrecks there has still never been a comprehensive analysis of the topic.

The only study on a specific museum type, Pilgrim’s Doctor of Philosophy thesis on Motor Museums (2005) has been of great assistance for this present study. There are many similarities between motor museums and maritime museums, or cars and shipwrecks, though great differences as well. The structure of the thesis and the methodologies used are similar in both these theses. Some of the methodology and
questionnaire construction has drawn on the previous experience of Pilgrim and his work.

**Exhibition Design in Museums**

“…the underlying purpose of an exhibition is to communicate.”

(Heathcote 1997:8)

There are many handbooks on museum management and operation and it is from these resources that the following range of ideal exhibition design methods is taken. The following paragraphs will explain the most appropriate types of exhibitions, layout of exhibitions, artefact arrangements, interpretation methods, information content, context and biasing factors of which to be aware.

**Types of Exhibitions**

“Exhibitions usually end up preserving a stereotyped idea of the past, and confirming a particular political view of the nature of the present.”

(Pearce 1996:158)

There are many divisions in the types of exhibitions that are that are applicable to the representation of shipwreck information. There are object- versus concept-orientated, thematic as opposed to systematic and there is curated versus open storage. All of these styles can produce effective exhibitions, even the open storage in certain circumstances. Object-oriented exhibitions are self-explanatory; the main focus is the objects themselves with supporting interpretation through text and graphics. Concept-oriented exhibitions are created for the purpose of transmitting information, with objects used as supporting evidence. Concept-oriented exhibitions can include thematic and interpretive style exhibitions (Edson and Dean 1994:153). Thematic exhibitions have ideas or stories as the premise for the displays and can include varying balances of objects and information. Systematic exhibitions would have a greater focus on objects particularly the development and classification of artefacts (Velarde 1992:662). All of the means of exhibition described above can be classified as curated styles if an exhibition brief outlining the purpose and methods is constructed and realised. This is in opposition to the open storage technique of exhibiting artefacts which is collections of artefacts with basic identifying labels if any at all (Abrose and Paine 1993:86). The open storage method of exhibiting artefacts is most common in community museums where there are few museum
workers willing or able to create a curated exhibition. The main benefit of open storage is public access even if no specific interpretation is available, it is better that they are on show than locked away.

**Exhibition Layout**

The floor plan of the exhibition space is an important aspect of the design process as it contributes to the logical presentation of information and controls traffic flow around the exhibition elements. There are two main exhibition morphology patterns: the regulated pathway and the free-form open plan. In the first layout pattern, the exhibition elements are arranged so that only one path, past all of the displays, is possible so that the visitor absorbs the information in this set pattern. This is most suited to the chronological presentation of information and subconsciously instills the visitor with a reassurance that this is factual information that has been proven and should just be absorbed as good knowledge that will benefit them. The second pattern has a more open series of display cabinets that allows visitors to choose their own path. This is more suited to thematic approaches and encourages the visitor to be more involved in their learning process, encouraging deeper thinking and involvement in the museum experience (Pearce 1996:149-50). Once the overall floor plan is decided upon, the arrangement of information panels should be determined. Larger blocks of text should be located in areas where several people can congregate and still allow people to walk passed (Heathcote 1997:41).

**Artefact Arrangement**

There are many different acceptable techniques of arranging artefacts but all have the purpose of placing the object in context. Artefacts can be placed on their own or in groups with complementary text and graphic interpretive information. Artefacts can be arranged with objects of the same type showing a progression of design or similar development. They can be part of a shipwreck collection or even more specifically from a particular persons’ cabin on a shipwreck. Artefacts could even be included in a diorama, perhaps the most effective method of reconstructing context. As a relevant case in point, fragmentary archaeological artefacts should be arranged and interpreted, by reconstruction drawings and the like, so that the visitor is able to decipher the original appearance of the object while still appreciating the current broken state (Pearce 1999: 162).
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Practical considerations for obtaining the greatest benefit from artefacts in exhibitions are as follows. Artefacts should be within ninety centimeters and two-hundred centimeters from the floor with the average eye line, and therefore main focus, at one hundred and fifty-five centimeters from the floor. Each section within an exhibition should have a central focus point of an artefact, rather than an interpretive text, for aesthetic as well as communicative purpose. It helps focus the main message of that display and make it intelligible to the observer (Heathcote 1997:38).

Interpretation Methods

"It is the information that, in today's museum, is considered by the visitor to be integral with the object." (Velarde 1992:663)

Although objects are at the core of museums, they are less than useful if they are uninterpreted. Visitors are unable to appreciate or learn anything from their experience. Interpretation in museums usually comes in textual form because this is the easiest and cheapest method, although not the most effective. Written words occupy fourth and last place in Velarde’s learning system that is further explained below (1992:665). The standard textual based interpretation method consists of a hierarchy of text panels: title, introduction, section and captions. The different levels of labeling correspond to the different levels of information and therefore make the overall exhibition more comprehensible to the visitor (Serrell 1996:21).

Ambrose and Paine (1993) provide excellent practical advice for interpretation techniques in museums. They differentiate between static and dynamic interpretation methods. Static techniques include: objects, models, drawings, photographs, dioramas, tableaux, information sheets and guidebooks while dynamic methods consist of: sound guides, lectures, video, working models, live interpreters, computer-based displays, interactive-video discs, handling objects and drama. It is obvious that static is easier and cheaper than dynamic, it is unfortunate the more expensive methods are more suited to effective learning.
Pre-Existing Knowledge and Biasing Factors

“Museums have an ideology that exhibitions can be presented neutrally but this is impossible, social forces will always play a part.” (Maleuvre 1999:11)

All human beings are the product of their environment and previous experiences. These factors contribute to all other interactions, including a museum experience. This means that the museum worker has pre-conceived ideas when designing an exhibition and this is why many museum practitioners have suggested that there should be some acknowledgement of the people involved in the museum exhibition (Edson and Dean 1994:152 and Weil 1995:16). Museum visitors also bring along their life experiences and interpret the exhibition through these influences.

Visitors

"It is the information that, in today's museum, is considered by the visitor to be integral with the object." (Velarde 1992:663)

Members of the public undergo a transformation into museum visitors when they decide to increase their knowledge through looking at the ‘real things’ and gain some satisfaction from the experience (Edson and Dean 1994:147). This is why a great deal of research has been completed on learning processes in the museum environment (Edson and Dean 1994:176) and why visitor evaluations are so popular in museum studies.

Learning Mechanisms

“...learning occurs when new material is assimilated into an organizing schema - this schema being the total collection of past learnings and experiences.” (Prince 1992:696)

Learning is a process of obtaining, reinforcing and restructuring acquired knowledge (Ferguson n.d.:2). There are many different classifications of learning processes and Velarde’s four tiered system will be explained (1996:665). The first and easiest method of learning is through visual stimuli, which is most appropriate for the museum setting. The second most effective learning process is through actual
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experience followed by spoken words with visual aids. Finally, the least most effective learning system is through the written word.

Visitor Evaluation Studies

“Visitor research is an essential management information tool.” (Hooper-Greenhill 1994:68)

Visitor evaluation studies have progressed from the head counting systems of eighty years ago, now they are a sophisticated industry within museum studies that heavily influences all aspects of museum operations (Bicknell and Farmelo 1993:7). Savage demonstrated this in diagrammatical format (1996:4) and conferences are regularly held to discuss the latest developments in this field such as the one held in the Science Museum, London (Bicknell and Farmelo 1993).

There are three main types of visitor evaluation studies: Front-end, formative and summative. Front-end evaluation occurs, as is suggested, at the beginning of the exhibition planning process to trial potential ideas for visitor interest. The second category, formative evaluation, takes place during the design process and focuses more on details of communication and the arrangement of objects (Miles 1993:24). Finally, summative evaluation reveals if it was an effective exhibition and if the visitors understood and enjoyed it (Hooper-Greenhill 1993:78).

Archaeology Versus History in Museums

“Ultimately maritime history, maritime archaeology and maritime museums all seek to interpret and ‘present’ the way in which people associated with the sea lived in past times to people in the present day.” (Staniforth 1993:308)

Although maritime history and archaeology share a similar aim (as mentioned above), there are distinct differences in approaches to this purpose. The most obvious and stereotypical difference between archaeology and history is that history is text based and archaeology is artefact based. This does not hold true for museums however as objects are the core for archaeological and historical museums. There is a difference in the type of objects connected to these two disciplines. Historical museums tend to have aesthetic artefacts whereas broken artefacts are the norm in archaeological excavations particularly underwater sites and clearly this would have
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a bearing on an exhibition (Staniforth 1993:309). Another division between historical and archaeological museum collections is the associated information for each artefact. Prior to museum collection policies becoming standard for most museums, they acquired objects from various, sometimes dubious, sources with no standard contextual information and these have been developed into social history collections. This is in opposition to archaeological artefact collections that have scrupulous additional information for every artefact with which to build up an image of context.

Social history museums are more prevalent in Australia, as will be seen in the following thesis. There is a theory that social history museums are more attractive to visitors because they deal with more current issues (Kavanagh 1990:7). An alternative theory is that archaeological museums are more appealing because of the tantalizing allure of the discipline. Whatever the conclusion, there is enough scope for both archaeological and historical influences in museums.

Summary

There is an extensive amount of research regarding museum theory and practice, maritime archaeology and history in museums and historical and archaeological perspectives on shipwrecks, all of which is useful contributing information for this thesis. However, this particular study is unique in its specific focus on the topic of shipwrecks in museum

3. Methodology

Introduction

This chapter presents the processes behind the research and the way in which this study has been completed. The examination of how shipwrecks are represented in museums is tripartite in nature to ensure a balanced view of the issue in question. The physical methods of representing shipwreck information in museums were examined as well as the cognitive effects that these physical manifestations had on museum workers and visitors. First, museums were visited in-person to evaluate the physical museum systems in a consistent method by one person, with minimal bias. Secondly the opinions of the museum workers were gathered through the worker
Chapter 3. Methodology

questionnaire and finally the differing perspective of the museum visitor was ascertained through the visitor questionnaire. When all this data was collated it was examined for common themes and ideas, and then conclusions made related to existing information to provide practical recommendations to interested museums.

Stage One – Academic Evaluation of Museums

Establishing a Museum Database

A database of Australian museums containing shipwreck material was constructed with information gathered from internet sites and tourism services in an attempt to replicate the search patterns of members of the public interested in viewing shipwreck artefacts. A guide to Australian maritime museums produced by the Australian National Maritime Museum (Fletcher 2000) was also very helpful in producing the database. This search was extensive and intensive and every effort was made to locate all Australian museums containing shipwreck material so that this would be a comprehensive study of the representation of shipwrecks in museums. This list of museums was continually added to until the last few weeks of research and although every attempt was made to locate all museums there still may be some small museums or museums with small collections that have been overlooked. The end result was a list of fifty-six museums distributed around the coast line of Australia with a concentrated area in the south-eastern states as can be seen in figure 1. Information about each museum was compiled into a Microsoft Access database as a continual reference source throughout the study and for possible future use for all museums. The information recorded was: location, contact details, opening hours, affiliations and accreditation, a basic list of shipwreck information, questionnaire participation and hours spent visiting the institution. This database is in appendix 1.
Figure 1. Map of Australian museums containing shipwreck cultural material.

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Visiting Museums

From this database, twenty-nine museums were targeted to be visited by the researcher and these are highlighted in figure two. Museums easily accessible by car or economical plane flights were favoured particularly if inexpensive or free accommodation was nearby. Several museums in a similar area were considered advantageous so that they could be visited in succession if the opening hours were appropriate. Several museum visits were tied into other field trips [W044 and W045]. In this way, several museums from each of the states were visited (except for the Australian Capital Territory which has no appropriate museums and the Northern Territory which was too difficult to access) to attempt as broad and unbiased selection of museums across Australian as possible. Approximately 85 hours were spent visiting museums not including travel time.

In Queensland, two museums out of five were visited [M002 and M003] while in New South Wales six out of fourteen museums [M014-19]. In Victoria, six out of seven museums were visited [M021, M023-27]. In the home state of this research, eleven museums were examined [M028-34, M037-8, M044 and M045]. In Western Australia, three branches of the Western Australian Maritime Museum were visited [M046, M047 and M050]. In Tasmania only one museum [M056] was visited.
Figure 2. Museums, containing shipwreck material, that were personally visited (indicated in blue). Refer to the figure above for names of museums.

Museums were contacted to arrange a visiting time so that the researcher could interview the museum staff as well as view the shipwreck items in the museum. The twenty-nine museums were visited between 12th February 2005 and 13th April 2006 (see database for individual dates and times). The average museum visit lasted three hours although this depended on the size of the museum, the amount of shipwreck material and the opening and closing times. Usually, less than the desired amount of time was spent in each museum.

Each museum was extensively recorded by digital photography and hand written notes. Permission for photography was requested at each institution with one museum not giving consent (Goolwa [M032]) and one museum requiring paperwork to be processed before permission was granted (Museum of Sydney [M015]). Hand written notes substituted in instances where photographs were not permitted or possible. While examination of the shipwreck material was considered a priority, every effort was made to record the entire museum open to the public so that an accurate impression of how the shipwreck material contributed to the overall museum was gained. Further in the study there is an approximate quantification of shipwreck material in each museum in the results chapter.
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At each museum, a variety of information about museum operations was collected to understand the contributing factors that affected the front of house exhibitions. The museum staff were extremely helpful in providing information about staffing, volunteers, funding, display design and production, acquisition policies, museum accreditation and staff training levels.

Follow up work after the museum visit involved downloading the photographs, labeling them and writing a report on the museum giving general impressions and analysis of the overall effect created by the museum and included comparisons to other museums.

The cost of visiting these museums was met by the researcher and family members with minimal financial contributions from the university ($600 through Research Student Maintenance) and some travel provided in association with other field trips.

**Stage Two and Three – Qualitative Evaluation**

To examine the differing perspectives of the museum workers and museum visitors the qualitative evaluation method of questionnaires was chosen. Self completing questionnaires were suited to the fieldwork environment which prevented the researcher from personally administering and monitoring the evaluation methods. While relying on the assistance of museum staff to facilitate the questionnaires, it also eliminated the biasing factor of an interviewer or survey facilitator. Questionnaires have the advantage of allowing a mass of interpretable data to be gathered with relative ease. The findings from a small target group are representative of a larger population and are suitable for generalization. For these reasons, questionnaires were identified as most appropriate method for this study.

**Questionnaire Design Preparation**

During the questionnaire designing process, training and research were necessary and many contributing factors had to be considered. To prepare for writing the questionnaires, courses in ‘Qualitative Research’ (O’Toole 2005) and ‘Questionnaire Design’ (Aylward 2005) were attended and when coupled with the reference book by Foddy (1993) this allowed the first draft of the questionnaires to be composed. This process was not without difficulties. The questionnaires were written when very few museums had been visited so it was very difficult to predict museum collections and display methods and therefore how relevant the questionnaire would be to the
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museums. This was information to be gathered throughout the study and the questionnaires were composed at the commencement of the study period. Another impediment was targeting the multiplicity of the participant group in both the museum workers and the visitors. The diversified training of curators is part of the research question but such a wide range was predicted that it made the task of questionnaire writing quite demanding.

Standard concepts in questionnaire writing were followed. Every effort was made to avoid leading questions and priming effects (Foddy 1993:60). Questions were written as concisely as possible so that there were no misunderstandings (Foddy 1993:36). Compromise was a recurring issue throughout the questionnaire construction process. The questionnaires had to be of sufficient length so that the required information was recorded while not making the questionnaires too long as to discourage participants (Aylward 2005). Over time, the questionnaires were revised multiple times due to a change in the research direction, further experience of the researcher and upon the advice of experts in the field including Mark Staniforth, Bill Seager and Michael Gregg. The completed questionnaires were submitted to the Flinders University Ethics Committee for approval and this was granted on 19 October 2005 (Project 3425).

Two questionnaires were created to evaluate the opinions of museum workers and visitors concerning shipwrecks in museums. These qualitative methods of research had complementary questions to allow comparison on issues such as shipwrecks, museums and maritime archaeology. These issues will be examined in the discussion section. These questionnaires are classified as a type of ‘summative evaluation’ however a major potential future use for the completed questionnaires is to be used in front-end evaluation for future exhibitions yet to be designed.

**Stage Two - Worker Questionnaire**

A questionnaire was designed to illuminate the preconceived ideas of the variety of museum workers that are involved in curatorial and exhibition design work in the many museums around Australia that include shipwreck cultural material. The questions were designed to gain an understanding of how and why workers create the exhibitions.
Worker Questionnaire Design

During the designing process of the worker questionnaire it was hypothesised that the target participants would be of vastly different backgrounds, training and experience. In this study ‘museum workers’ will not only mean curators, but also volunteers and custodians in lieu of a trained curator. Part of the research project was to qualify and quantify the diversity of museum workers involved in the designing of exhibitions containing shipwreck material as their personal histories would affect the emphasis of the exhibitions. The challenge was to write questions that could standardise the information gathered while still capturing the diversity of this group of people. A list of questions that would tease out the desired information from the workers was written down and common themes grouped together. In this way, the questionnaire was separated into the three sections of how the museum workers relate to: shipwreck exhibitions, museum visitors and maritime archaeology.

The first section evaluated the workers’ ideas and preferences in regards to shipwreck exhibitions by asking about displays that they had previously designed. The worker was especially asked to summarise the exhibition brief that should have been completed for the museum installation. What was the main idea of the exhibition and why? Why were those specific artefacts chosen what were the main interpretation methods? The influence of visitors’ interests upon the display was also investigated. To conclude the section, the participants were asked to design their ideal hypothetical exhibition containing shipwreck cultural material, with absolutely no limitations or restriction in an attempt to reveal the workers’ preconceptions about shipwrecks based on their training, life experiences and interest areas.

The second section of the questionnaire evaluated the museum workers’ opinion of museum visitors. It asked what they believed the average museum visitor thought about shipwrecks and maritime archaeology and whether they could distinguish between maritime archaeologists and treasure hunters. Similar questions were included in the visitor questionnaire to allow for comparison between preconceived ideas of workers and visitors and also provide information on biasing factors in the creation of exhibitions to attract visitors.

The third and final section provided information on the workers’ relationships with archaeology, whether they were an archaeologist or have worked with one and if they could see the benefit of maritime archaeology to their occupation. The
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questionnaire also asked the workers if they knew about the appropriate protective legislation for shipwreck cultural material. The final question asked the workers about their education to discern if they were trained in museum studies, archaeology, history or none of the above. Refer to appendix two for the worker questionnaire.

**Worker Questionnaire Distribution**

Of the twenty-nine museums visited in the course of this study, fourteen museums were identified as being appropriate participants in this section of the research [M002, M003, M014, M016, M019, M021, M023, M024, M027, M028, M038, M045, M046 and M047]. These museums were selected because they had a clearly identifiable person who performed the tasks of museum curator and exhibition designer. Not all museums had a job description such as this, either because exhibition designing had been contracted out, or the person who had previously performed that task was no longer contactable. The questionnaires, with an attached explanatory letter or email, were sent to the museums and entered the museum administrative hierarchy either through the committee, secretary or the marketing and public programs officer. Usually it took several weeks or even months to gain the consent of the museum for the workers to complete the questionnaire. Eventually, fourteen completed worker questionnaires were returned as an interesting insight into the behind-the-scenes aspect of the representation of shipwrecks in museums.

**Worker Questionnaire Evaluation**

When the questionnaires were returned, they were coded using a system of the letter ‘W’ followed by three numbers [W000]. Individual questionnaires will be referred to throughout the thesis according to this code. Then the task of transferring the data into Microsoft Access began, along with the sometimes impossible task of deciphering handwriting. Microsoft Access was chosen as an appropriate package to use for analysis as it was predicted that only a small number of questionnaires (under fifty) were expected to be returned. Many hours were spent transcribing the data to be described in Chapter 4 and analysed in Chapter 5.

**Stage Three - Visitor Questionnaire**

The visitor questionnaire had to account for the variety of people who visit museums and also different museums with differing content. This questionnaire was quite
difficult to devise as it had to account for many different museums, with differing displays of shipwreck cultural material and different levels of interpretation.

**Visitor Questionnaire Design**

The questionnaires were designed to qualify the ideas of museum visitors to identify preconceived ideas and to see if any ideas were changed by interacting with the museum exhibitions. The target participant group was identified as being adult visitors to the museum (over 18 years of age) who consented to complete the questionnaire. The following is a summary and analysis of the visitor questionnaire so that the results as reported later will be comprehensible. As with the worker questionnaire, the visitor questionnaire was divided into separate areas that were to be investigated. The four sections covered the visitors’ relationships with: the aquatic environment, museums, maritime archaeology and concluded with a series of demographic questions.

The first section had the purpose of establishing the relationship of the museum visitor to the water, if they were in regular contact with the aquatic environment as this would effect their interpretation of the museum. Questions were asked of the visitor if they had lived near the water or participated regularly in water activities and if they had ever had an experience with a shipwreck.

The second section asked questions to ascertain the visitors’ thoughts on museums generally and specifically on this visit. Visitors were asked why they came to the museum and what they expected. This section also asked the important question concerning interpretation methods utilised in the exhibition – whether the visitor appreciated this or not.

The third section of the questionnaire examined the visitors’ thoughts on maritime archaeology and related ideas. The visitor was asked to differentiate between maritime archaeologists and treasure hunters and this distinction is further clarified if they knew anything about the legalities of underwater cultural heritage. Some questions about visitors and museums were located in this section as they would have been too overwhelming in the second section. The visitor was asked if they had ever been to another museum containing shipwreck artefacts and if the shipwreck exhibitions were memorable enough to recall in detail. Following on from this, a quite extensive list of museums is located that would have been too overwhelming if placed elsewhere.
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The final demographic section created a brief stereotypical understanding of the social background of each visitor. The visitor was asked their gender, age group, highest level of schooling and a postcode to determine how far they had come to see the museum and if indeed they lived near the water. The demographics also allowed for comparison to other statistical studies. Refer to appendix three for the visitor questionnaire.

Visitor Questionnaire Distribution

Fifteen of the twenty-nine visited museums were selected as appropriate to have the visitor questionnaire located at the entrance foyer or desk [M002, M003, M016, M019, M021, M023, M024, M027, M028, M030, M038, M045, M046, M047, and M050]. These museums were selected because they had an adequate percentage of shipwreck material on display, had an appropriate location to put the questionnaire and had sufficient staff to assist with encouraging visitors to complete the forms. The fourteen museums were contacted and permission sought by the museum board or authorities to have the questionnaire on display. Ten museums consented to participate in the visitor questionnaire.

After the questionnaires had been distributed the museums were contacted regularly to check on the progress of the evaluation forms. After designated period of time had expired the museums were reminded to return the completed forms, many institutions required several reminders but eventually the majority of questionnaires were returned to the researcher.

Visitor Questionnaire Evaluation

The individual questionnaires were coded using a system of the letter ‘V’ followed by three numbers [V000] in keeping with the worker questionnaire style. Individual questionnaires will also be referred to throughout the thesis according to this code. Similarly, the questionnaires were transcribed into a Microsoft Access database. As these questionnaires had more closed questions involving tick boxes rather than open questions requiring a written answer, the task of deciphering the participants meaning was slightly easier though it still took many hours. This information will be summarised in chapter 4 and analysed in chapter 5.
Chapter 3. Methodology

Summary

The methodology for collecting information on the presentation of shipwrecks in Australian museums was designed and implemented. A database of suitable museums containing shipwreck information was collated and visits to these institutions arranged. The personal visits to a selected cross-section of museums was extremely valuable in providing some of the more general conceptual information about the representation of shipwrecks in museums. Two questionnaires were designed, reviewed and approved before being released into the field. The logistics of circulating the questionnaires was a challenge and the general methods that lead to a statistically significant number of completed documents were outlined. These qualitative forms of evaluation were the most appropriate methods of gathering the large amount of data required to gain a generalised understanding of museum workers and visitors ideas about shipwrecks, maritime archaeology and museums.
4. Results

Introduction

The information that has been gathered throughout this research from visiting museums and administering questionnaires will be summarised in this chapter. To begin with, data collated from museum visits will be described including the physical methods of representing shipwrecks followed by a brief overview of how some museums have utilised these techniques. Then, the results of the worker questionnaires and the visitor questionnaires will be reviewed. The results of this study will be discussed and analysed in Chapter five.

The Establishments

Australian Museums with Shipwrecks

From extensive fieldwork, internet and library research and telephone calls, a large data resource of photographs, notes and museum reports has been collated and will be summarised in the following section. Information about the fifty-six museums regarding their affiliations, governing bodies, staffing, policies and exhibition design methods will be outlined.

The name of a museum is a significant factor in projecting the museum image. Twenty-seven museums are named ‘maritime’ or ‘nautical’ museums and another three are strongly identifiable as of a maritime persuasion from their name or clearly advertised main attraction. An example of this is the Museum of Tropical Queensland [M002] which is more commonly referred to as the Pandora Museum. The remaining twenty-six museums are local or historical museums that contain shipwreck material among many other historical artefacts (see Appendix one for more details).

A major factor in the operations of a museum is their affiliations and governing bodies. The fifty-six museums that contain shipwreck artefacts, have several different organizations that manage and/or advise them. The Australian National Maritime Museum [M016] is run by the Commonwealth Government, eight other museums are state government operated and two are local council museums. The National Trust, Historic Houses or National Parks, support twenty-two museums, one
Chapter 4. Results

is supported by a local community group and the remaining twenty-three are independent.

Another method of classifying the museums in this study is by staffing arrangements. Within this group of fifty-six museums, there are practitioner-run and volunteer-run and a mixture of the two. The practitioner operated museum category has a considerable staff of trained and paid professionals including a director, curators, education officers and conservators. This museum type has a museum policy document that deals with collection management, acquisitions and exhibition design among other issues. It is relatively well funded with professionally designed exhibitions and storage facilities for museum collections not on display. Museums of this type are: M001, M002, M014, M015, M016, M023, M038, M044, M046, M047, and M050.

Another category that is almost the polar opposite is the volunteer-run museum that operates on the good will, commitment and enthusiasm of its’ dedicated staff. It is dependent on grant applications and entrance fees and is more of an open storage facility with common sense display and interpretation methods. It may have a museum policy or is in the process of creating this document. Examples of this category are: M025, M029, M030, M031, M032, M033, M034, M035, and M045.

In between these two categories is a museum type that is volunteer-run, museum accredited and moderately financial. The interpretation is of fair quality and though open storage is the main method of artefact display, there is also a professional exhibition created by the state heritage office.

Percentage of Shipwrecks in Museums

The twenty-nine museums that were personally visited during the course of the research all contained different amounts of shipwreck related information. An estimated percentage of shipwreck related displays in each museum is necessary to place all other aspects of the analysis in perspective. From observations during the museum visit and approximating the museum space occupied by shipwreck related displays, each museum was attributed a very approximate percentage. There was no consideration taken of potential artefacts in storage and this value had no relation to the quality or effectiveness of displays. Figure 3 shows all of the values of the museums. The graph shows that eleven museums had ten percent or less of their gallery space to show shipwreck information, four museums were each given the values of 15%, 20% and 25%. Two museums had approximately a third of the
Chapter 4. Results

museum occupied by the subject of shipwrecks and one museum devoted 40% of the exhibition space to this topic. Only five museums had more than half of their exhibition space occupied by shipwreck material.

![Figure 3](#) Graph of the percentage of shipwreck cultural material on display at each of the museums visited.

**Methods of Representation**

"The construction of a world view through the choice of representative objects and their arrangement in space has been an enduring function for collections.” (Hooper-Greenhill 1992:670)

The natural categories of the representation of shipwrecks were identified after visiting twenty-nine museums and observing their collections and exhibitions. The methods of shipwreck representation will be outlined in a typical exhibition design process. First, the subjects of the exhibitions will be identified, followed by the artefacts to be used, the arrangement of artefacts, the interpretation and then finally the physical display elements.
Chapter 4. Results

Exhibition and Display Subjects

A Specific Shipwreck

A common subject of a museum exhibition involving shipwreck information, is a specific shipwreck as a case study. Elements involved in this type of exhibition include: ship dimensions and statistics, historical sources, personal documents, archaeological reports and photographs and drawings and associated artefacts.

An example of this is an exhibition entitled “The total loss of the Walter Hood” which can be found at the Lady Denman Heritage Complex [M019]. The exhibition covers all aspects of the tragedy from the number of deaths to the affect of tiles not arriving at the St Mary’s Cathedral building site. There is written text, contemporary photographs of a memorial and interpreted artefacts from the underwater exploration project. A statement also declares the Walter Hood as a protected historic shipwreck.

Figure 4. Walter Hood exhibition at the Lady Denman Heritage Complex (photo P. Knott 17.03.06)

Shipwreck Region

Seventeen out of twenty-nine museums visited had a section of the museum dedicated to illustrating the high density of shipwrecks in the area through a map and/or list. Some of these museums developed the concept to provide more information about some of these shipwrecks. Perhaps the best example of this method of representing shipwrecks was at Flagstaff Hill Maritime Village [M026]. This incorporated a map with shipwreck locations, a list with shipwreck details and finally a computer program for even more information.
Maritime Themes

There are a variety of maritime themes that have used shipwreck information and cultural material as evidence. Topics that have been covered in visited museums include: exploration, immigration, navigation, the navy, recreational racing, shipboard life, shipbuilding, trade and war. These themes can be the subject of an entire exhibition such as navigation at MTQ [M002] (figure 6) or shipbuilding at LDHC [M019]. Alternatively, the themes can be part of a larger exhibition such as ‘Wrecked!’ at SAMM [M038] which covered the topics of: exploration, immigration, trade, rescue, survival, death and maritime archaeology. A more recent maritime theme is explored at the ANMM [M016] exhibition on the tragedies of the Sydney to Hobart yacht race. It includes textual information from the coroner’s inquiry and a diorama for the court proceedings into the disastrous 1998 race. This shows the tragedy of modern day shipwrecks.
Chapter 4. Results

Figure 6. A navigation display utilizing Pandora shipwreck artefacts at the Museum of Tropical Queensland (photo: P. Knott 01.03.06).

National History

Some shipwrecks can affect an entire country. Although Australia was not yet a nation, the loss of the Sirius was detrimental to the new colony as this ship was the life line to the rest of the far away civilised world. An excellent exhibition on this shipwreck is at the entrance to ANMM [M016] with the restored anchor and smaller artefacts and underwater photographs as supplementary information.

Figure 7. Sirius exhibition at the Australian National Maritime Museum (photo: P. Knott 20.03.06).
Chapter 4. Results

Local History

There are many examples of the effect that shipwrecks have had on local history. For example, according to FHMV [M026], the numerous shipwrecks along the Victorian coast had the dual effect of instigating more lighthouses to be built and encouraging the development of improved navigation techniques. Another memorable local story relating to shipwrecks is outlined at the PMDM [M028]. A group of local boys’ antics on the remains of the *Miami* led to the burning of the wreck to the waterline. Criminal proceedings would have occurred had not one of the boys father’s worked for the salvage company who owned the wreck.

![Miami display at the Port MacDonnell and District Museum](photo: P. Knott 20.01.06)

Figure 8. *Miami* display at the Port MacDonnell and District Museum (photo: P. Knott 20.01.06).

Personal Story

Many artefacts found on shipwrecks can be traced back to their owners on the ship using contextual, historical and archaeological evidence. This information can then tell stories about the person. An example of this is incorporated into the *Pandora* exhibition. This is a very personal story as it is told through human remains. Three bodies were found on the Pandora wreck and using the three types of evidence mentioned above, the bones have been identified as belonging to actual people on the ship.
Chapter 4. Results

Maritime Archaeology

There are several exhibitions that take a maritime archaeological approach to the representation of shipwrecks rather than a historical perspective. Issues covered in these exhibitions include: survey and excavation techniques, site protection and legislation, conservation, remote sensing methods, the importance of artefact context and practical instructions when a wreck is discovered. Several museums that mention shipwreck legislation are: M002 M003, M016, M021, M026, M030, M029, M046, M047, M050, M056.
Chapter 4. Results

Types of Artefacts

"The important thing is not how old a shipwreck is, but whether it can be used to answer questions about how people behaved in the past."

(Coroneos and McKinnon 1997:1)

Entire Shipwrecks

Perhaps the most obvious and yet rarest method of representing a shipwreck in a museum is by an entire shipwreck. What is meant by ‘entire’ in this situation is at least half of the original hull structure. There are very few examples of this in Australia and indeed around the world. An example of an entire shipwreck on display is the City of Adelaide at the Axel Stenross Maritime Museum [M045]. The City of Adelaide is classified as a wreck in ‘The South Australian Shipwrecks: A Database 1802-1989 (Christopher 1990:35) where it is listed as a steel steam jet engine propelled lifeboat that became a hulk on a Port Lincoln beach sometime in 1954. Currently the City of Adelaide sits out of the water continuing to rust away with no clear date set for the proposed restoration project.

Figure 11. The City of Adelaide at the Axel Stenross Maritime Museum (photo: P. Knott 09.02.06).

Sections of Shipwrecks

Sections of shipwrecks are the most common representation method. They can range in size from large hull sections, such as Batavia, or small coins. However the
Chapter 4. Results

smaller objects are more frequently on display. Sections of shipwrecks can include: cargo items, crew or passenger belongings or ship fittings such as pintles, which are to be found in many museums including: FHMV [M026], ECDC [M034], Robe [M031] and PMDM [M028].

![Pintles from the Encounter Coast Discovery Centre (photo: P. Knott 19.02.06).](image)

**Modified Shipwreck Artefacts**

A more unusual method of representing a shipwreck is through modified sections of remains. The *Lightning* shipwreck provided many artists inspiration and resources to create interesting pieces of furniture and curios with their own special story to tell. In the Geelong Naval and Maritime Museum [M025] there is a smoking stand and a wooden pedestal made from the remains of the this once majestic ship while more remnants of the *Lightning* have been carved into a sliding box and are on display at ANMM [M016]. Timber from the *Troas* continued to serve a purpose after the ship was wrecked. Firstly a salvaged timber was used as a fence post and later carved into a cup and now can be viewed at the Port MacDonnell and District Museum [M028].

![Wooden cup made from the timbers of the *Troas* shipwreck, on display at the Port MacDonnell and District Museum (photo: P. Knott 20.01.06).](image)
Chapter 4. Results

Shipwreck Inspired Artefacts

This category covers all manner of objects that have come into existence due to the wrecking of a ship. These can include: memorials, medals, newspaper articles, official enquiry documents, books, poems, songs, and artworks. For example, letters to the Colonial Secretary from the Surgeon Superintendent of the *Hive* about the gross misconduct of the captain in 1835 are on display at LDHC [M019]. Medals awarded to the heroes of the *Admella* shipwreck are on display at the Port MacDonnell and District Museum and letter of commendation to the rescuers of the *Star of Greece* are at Willunga Courthouse Museum [M037]. A more unusual commemoration artefact can be found at ANMM [M016] where a very large tapestry hangs as a memorial to the seventy-nine people who drowned when the *British Admiral* was wrecked off King Island in 1874. It truly captures the destructive forces of the sea and the fear felt by those involved.

![Figure 14. Disaster at Sea tapestry created in memorial to the *British Admiral* shipwreck (photo: P. Knott. 30.03.06).](image)

One of the most prevalent subsections of this category is ship models. Although they are not strictly a representation of a ‘shipwreck’ in its’ most destructive form, they are a memorial to the ship in her active days. There are ship models in a large number of museums in this study, seventeen out of fifty-six to be precise, with thirty-nine models of ships that were later wrecked. An example of this is shown in figure 15. The *Astrolabe* was La Perouse’s ship that was wrecked on Vanikoro Island sometime in 1788.
Artefacts Related to Shipwreck Victims

A similar category to the one described above is the type of artefacts related to shipwreck victims providing a more personal connection to the artefacts. These artefacts are associated with people on the shipwreck either before, during or after the wrecking event. At FHMV [M026] Captain Gibb’s certificate of competency demonstrates that he was a qualified captain of the *Loch Ard* and was not to blame for the catastrophic end. At the WAMG, [M050] there is a display case of documents demonstrating the effect of HMAS *Sydney’s* disappearance upon the Smith family. Next to two letters from Bill Smith to his wife Pat about the birth of their only daughter Marie is a telegram reporting the loss of the ship, a condolence note from the King and the program from the memorial service. These items were donated by Marie Janssen (nee Smith).
Chapter 4. Results

Conserved Artefacts

All artefacts on display in a museum should undergo some type of stabilizing conservation treatment even if they are to be left in the condition in which they were discovered eg. concreted. This is to ensure the longevity of the artefacts. Surely the most impressive such artefact is the preserved hull section form the *Batavia* shown in figure 17.

![Conserved hull of the Batavia](image)

**Figure 17.** Conserved hull of the *Batavia* at the Western Australian Museum Shipwreck Galleries (photo: P. Knott 02.12.05).

Un-conserved Artefacts

Artefacts can be displayed in an un-conserved state because of lack of money or skill or to demonstrate conservation issues. Both the ASMM and FHMV have un-conserved artefacts on display to show the artefacts in their original raised state. The ASMM museum worker specifically stated in their questionnaire that this was a deliberate decision [W006 question three] and a conserved shiny fork is juxtaposed to the assorted corroded pile of cutlery at the FHMV [M026] to show the original appearance of the artefacts. ANMM [M016] has *Dunbar* artefacts on a bed of sand
Chapter 4. Results

to recreate the underwater environment in which they were found but the artefacts have been conserved. A large concretion is on display at the MTQ [M002]. By looking at the three x-rays and reading the panel that explains how to interpret them, the visitor can conclude that there is a cannon ball inside. The MMT [M003] has an excellent basic instructive display on conservation using real hands-on artefacts.

![Conservation display at the Maritime Museum of Townsville, using un-conserved artefacts](photo: P. Knott 01.02.06)

Artefact Arrangements

Single Artefact

Artefacts displayed on their own were found in several museums and were thus on show for different reasons. In some museums such as the one at Robe, there were few artefacts to display. This was certainly not the case at the Museum of Tropical Queensland [M002] were a chamber pot is displayed individually, perhaps to show how they were discretely placed in wardrooms for use in opportune moments.

![Chamber pot from the Pandora, Museum of Tropical Queensland](photo: P. Knott 28.02.06)
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Case of Artefacts

A common find in many of the community museums was a case of shipwreck artefacts with minimal labeling. Sometimes it was made clear that no information about their provenance was known.

Figure 20. Case of artefacts from multiple shipwrecks, at Port Albert Maritime Museum (photo: P. Knott 29.12.05).

Exhibition

Shipwreck artefacts can be used as part of entire exhibitions. An example of a small traveling exhibition based on shipwreck artefacts was ‘Wrecked!’ which on display at the South Australian Maritime Museum [M038] in 2005. It consisted of eight cases with interpretation boards as can be seen in figure 21. Some of the larger exhibitions based solely on shipwrecks are at the Shipwreck Galleries [M046] and Western Australian Museum Geraldton [M050], and the Museum of Tropical Queensland [M002].

Figure 21. Wrecked! Exhibition at the South Australian Maritime Museum (photo: courtesy of Bill Seager).
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Lists and Maps of Local Shipwrecks

A common method of displaying information in a high density shipwreck area is to have lists and/or maps of shipwrecks on the wall of the museum. It is a useful way to set the scene and establish the importance of shipwrecks in the region. Just a single glance at this type of display can show the visitor the prevalence of shipwrecks in the area and the museum can proceed to develop some of these shipwrecks in more detail elsewhere in the museum. For example, the explanation given at the Flagstaff Hill Maritime Village [M026] is that many ships using the roaring forties to speed their way from the northern hemisphere, often miscalculated their position and failed to ‘thread the needle’ as Bass Strait was colloquially labeled. The shipwreck list or map is a useful general reference source for the museum curator and visitor alike. A point to note is that shipwreck lists tend to be more common in totally volunteer museums rather than curated professional museums.

![Shipwreck map, at Port MacDonnell and District Museum](photo: P. Knott 20.01.06)

Figure 22. Shipwreck map, at Port MacDonnell and District Museum (photo: P. Knott 20.01.06).

Interpretation

Un-interpreted

Some unfortunate shipwreck artefacts in Australian museums were left un-interpreted and therefore they are meaningless as they have not been placed in a larger context. There were only a few examples of these artefacts.
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There are a variety of text labels to be found in museums with shipwreck artefacts. The majority had some form of artefact label with the basic information of: name of artefact, ship name, tonnage, date and place of wrecking. Other text labels were more detailed, providing some interpretive detail as well. A small percentage of labels were handwritten rather than typed and these were mainly community museums.

Figure 23. Un-interpreted artefact at the Flagstaff Hill Maritime Village (photo: D. Macpherson 13.11.05).

Text Label

Figure 24. Artefact from the *Admella* shipwreck with a basic label, at Old Customs House Nautical Museum, Robe (photo: P. Knott 22.02.06).
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Single Artefacts with Detailed Interpretation.

The anchor at Axel Stenross Maritime Museum [M045] is an excellent example of the fairly detailed interpretation of a single artefact that has been archaeologically investigated by a skilled amateur maritime archaeology volunteer group. The anchor has a printed succinctly written artefact label.

![Anchor at the Axel Stenross Maritime Museum showing a detailed label with supplementary information in the attached booklet (photo: P. Knott 08.02.06).](image)

**Figure 25.** Anchor at the Axel Stenross Maritime Museum showing a detailed label with supplementary information in the attached booklet (photo: P. Knott 08.02.06).

Group Labeling

There are a group of artefacts from the *Walter Hood* displayed at the Lady Denman Heritage Complex [M019]. Unfortunately there is not a hierarchy of artefact labels so the important fact that these artefacts are from the same ship is not apparent. Also, there are many artefacts from many ships in the one display case and it is difficult to associate artefacts with a specific shipwreck. A summary of these shipwrecks is excellently represented on the walls nearby with historical photos or drawings and explanation of the history of the vessel and wrecking event.
Chapter 4. Results

Interpretation with Shipwreck Context

One method of interpreting shipwreck artefacts is to show their context within the shipwreck. This gives information about how they would have been used on the ship as well as giving an archaeological perspective to the whole matter. The Museum of Tropical Queensland [M002] does this very well. All of the displays in the archaeological section of the exhibition have maps of the shipwreck to show how that section of the wreck related to the whole. It is a very useful interpretation technique to assist visitors in comprehending the entire shipwreck.
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Placed in Historical Perspective

Artefacts with detailed interpretation, for example, telling a story about the wreck or people on it, or explaining the functioning of the artefact or how it has been conserved etc… Many artefacts from the same wreck to build up a picture of the wreck with detailed information to recreate the situation. An example of this is the James Matthews exhibition in the Shipwreck Galleries. Artefacts from the shipwreck are displayed among archaeological data from the excavation project and textual information describes the involvement of the shipwreck in the abolition of slavery and cargo transport to the Swan River colony.

Figure 28. James Matthews exhibition at Shipwrecks Galleries showing a shipwreck in historical perspective (photo: P. Knott 04.12.05).

Videos

Many museums use videos to represent shipwreck information in greater detail from the historical an archaeological perspectives. This was used to good effect at the Shipwreck Galleries where there is a video on the Xanthon project and the investigation of the Batavia. There are two videos at WAM Geraldton on the VOC shipwrecks. The Museum of Tropical Queensland [M002] used a video to set the scene for the entire Pandora exhibition. Actors assuming the personas of several instrumental historical figures involved in the wreck give an account of the wrecking events and historical and modern day images supplement the story. There is video at the Maritime Museum of Townsville on the Yongala and another at the Lady Denman Heritage Complex on the Voyager.
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Interactives

Only a few museums have computer interactive display elements as these are usually quite expensive to create and maintain. As part of SAMM’s ‘Wrecked!’ exhibition, a series of interactive children’s activities allowed children to experience underwater archaeology without getting wet. Children were able to participate in ‘discovering’ and raising fake shipwreck artefacts and reading the associated information. Although lacking certain realistic aspects, it did allow children to learn the basic principles of maritime archaeology and experience the underwater world through hands-on activities. The Museum of Tropical Queensland also had a series of computer programs allowing visitors to participate in maritime archaeological activities without getting wet, but still learning the some of the techniques. With a brief introduction and adequate instructions, visitors were able to excavate some shipwreck artefacts from the seabed and de-concrete an unknown metal object using touch screen computers.
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Figure 30. Interactive computer program allowing visitors to conserve artefacts at the Museum of Tropical Queensland (photo: P. Knott 01.03.06).

**Multimedia Experience**

There is only one museum in Australia that uses multimedia to present information about shipwrecks to the visitors and that is Flagstaff Hill Maritime Museum. Every night (subject to enough bookings), visitors can experience a sound and light show that simulates the wrecking of the *Loch Ard* and all the associated drama and emotion that is inseparable from this tragic event. Though this spectacular has not been witnessed by the researcher, it is known that the priority was the ‘wow’ factor rather than historical accuracy (E. O’Callaghan 2005, pers. comm., 11 May).

**Guide Books**

There are only a few museums in Australia that have a publication that complements the museum exhibitions. The Western Australian Maritime Museums in Fremantle have a guidebook (Western Australian Maritime Museum n.d.) as does the Flagstaff Hill Maritime Village (Bomford n.d.) and these are essentially books of museum highlights with glossy photographs and summaries of the information in each of the galleries. The Museum of Tropical Queensland guidebook (Gesner 2000) is a more comprehensive publication including details of the archaeological project leading up to the museum exhibition.
Questionnaire Results

Worker Questionnaires

Worker questionnaires were sent by email or post to fourteen museums (listed on page 26) and twelve museums responded [M023 and M027] giving an eighty-six percent response rate, however there were two responses each from the Western Australian Maritime Museum and Port Albert Maritime Museum creating the total fourteen responses. Where relevant, individual responses will be highlighted using the assigned code in the format [W000].

The questionnaire responses that were received from museum workers gave an insight into the curatorial side of the shipwreck exhibitions and into the personal training and ideas of the workers. The many open questions allowed a great deal of information to be recorded but also complicated the analysis as common themes had to be interpreted into the written answers. This will be apparent in the discussion section.

Workers and a Shipwreck Exhibition

The first question established whether the worker had ever been involved in preparing an exhibition including shipwreck cultural material and all participants responded in the affirmative. In question two, the workers recorded the name of the institutions in which these exhibitions were housed.

Question three asked the workers what the main subject of the shipwreck exhibition had been. A variety of different exhibition themes were outlined all of which were suppose to have contained shipwreck cultural material, however in one case it was unclear how this was possible [W003]. A common theme of shipwreck exhibitions was displaying information on how shipwrecks were part of local regional history (50%). Within the local history/local shipwrecks theme there were different associated topics including trade and personal stories of shipwreck victims. 21% of respondents emphasised the archaeological aspects of shipwreck interpretation. One respondent stated that the exhibition was to show the artefacts in the condition in which they were raised [W006]. Another respondent took the single shipwreck approach to the exhibition but did not name the shipwreck [W011].
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Following on from this, the workers were questioned why this subject had been chosen. Repeated answers were: public accessibility (43%), education (50%) or exploration of certain maritime themes (21%). Other major reasons for mounting exhibitions were to fulfill public expectations, national archaeology week, to fulfill a grant, to utilise a collection and finally to create a touring exhibition.

Question five asked workers to explain their choice of artefacts for the exhibition. 50% stated that this decision was based on the interpretive value and significance of the artefacts in relation to the exhibition topic. 14% of workers chose artefacts because they were unique or significant and another 14% used artefacts that were available. Only one respondent mentioned the artefacts were selected in accordance with the collection policy, another participant stated that all artefacts were used in the exhibition and the final respondent stated that variety of artefacts was the priority.

The interpretation methods used in the exhibitions were explored in question six. The most popular interpretation technique was object labels (79%) and more detailed information panels were used by 43% of workers. Graphics were included in 36% of exhibitions and multimedia in 14%. 29% of exhibitions had interpretive guidebooks. Only one respondent gave the vague answer of ‘various’ interpretation methods.

In question seven, all responses indicated that the exhibition previously outlined was successful in its intentions as stated in question three. However, only six respondents indicated that some form of exhibition evaluation had taken place in question ten. Therefore more than half said that the exhibition was successful without any empirical evidence.

Seven respondents to question eight stated that visitors’ interests and need for information were an influencing factor in the exhibition design process. The other six participants that responded considered the purpose of their exhibition to be more important than taking into account visitors’ preferences.

Question nine asked the worker if the exhibition reflected the visitors’ interests. Of the thirteen respondents to this question, all but one answered to the affirmative and the last did not understand the question as indicated by a question mark [W011, W006 did not answer].

Question eleven asked the worker to design their ideal exhibition concerning shipwrecks. The majority of answers were unique to the individual worker showing the variety of possibilities for shipwreck related exhibitions. The most common
suggestion was to create exhibitions on regional shipwrecks incorporating local history and personal stories. Other topics mentioned by only one worker were: circumstances of the wreck, ship construction and underwater wrecking processes. Two people would like to design an exhibition focusing on the cargo of the shipwreck. One person thought that educating visitors about the importance of context in a shipwreck would create an interesting exhibition and a similar idea by another respondent was placing a shipwreck in its’ historical context was an idea for an exhibition. The final two participants wrote about their ideal exhibition design techniques. One wanted to create a more interactive exhibition about shipwrecks and the other wanted to further this idea by creating an exhibition that allowed the visitor to experience a real shipwreck event.

Worker and the Museum Visitor

Question twelve asked the workers’ opinions of visitors’ ideas concerning shipwrecks. There was a 54% response rate from workers that visitors thought shipwrecks were synonymous with treasure. Another popular idea held by the workers was that visitors associated adventure, romance and mystery with shipwrecks. Only two participants considered that visitors might have some appreciation of the tragedy of the shipwrecking event. Other singular ideas expressed in this section was that visitors thought shipwrecks were associated with: trade, causes of shipwrecks, relics, history, laws protecting shipwrecks, a technical opinion of a ship partially or totally destroyed at sea and only one respondent thought that visitors would have no general understanding of shipwrecks.

Question thirteen asked for the workers’ opinion of visitors’ thoughts on maritime archaeology. The most common response given by workers, was that visitors considered maritime archaeology to involve objects on the seabed to which they do not have access (29%). But almost as many participants considered visitors to understand shipwrecks as an important source of information and that maritime archaeology was a professional, worthwhile occupation that preserved heritage. Another respondent did not believe that visitors understood the technical training required by quality maritime archaeologists and that there was limited appreciation of artefacts as a source of information. A common idea thought to be held by visitors was of maritime archaeology as an adventurous occupation full of exploration and finding and raising exotic objects, akin to the Titanic expedition (36%). Respondent W004 believed that visitors thought that maritime archaeologists were “lucky sods".
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50% of museum workers believed that visitors could not differentiate between maritime archaeologists and treasure hunters while 43% of workers believed that visitors could and seven percent did not know.

Worker and Maritime Archaeology

Question fifteen asked participants to explain their relationship with maritime archaeology and its’ practitioners. Five respondents were maritime archaeologists and another had worked with them. One worker had no connections with maritime archaeology while another two participants had no direct connections but were supported by state heritage offices. One worker gave the response that they respected maritime archaeologists but did not support their methods of leaving interesting artefacts on the seafloor. 36% of workers affirmed the benefits of maritime archaeology to museum work as it provided different interpretation methods also stated that their discipline allowed a different interpretation to be brought to museums.

Participants were asked in question sixteen to record their thoughts on people that take artefacts from shipwrecks. There were very few direct ‘they are bad’ or ‘they are good’ answers. The most prevalent response (43%) essentially stated that it was unfortunate that divers use to take artefacts from shipwrecks but it was understandable, however, this does not occur as often now that it is illegal. One respondent still believed that artefacts are still taken from shipwrecks and that museums must convince them that this is wrong. Another respondent stated that they had mixed feelings about people that take artefacts from shipwrecks but that they hoped the artefacts would become part of a museum collection. Two of the responses were unintelligible [W004 and W012].

To recapitulate questions seventeen and eighteen, all but one participant ([W004] who did not respond) indicated that they were aware of the legislation that affected the shipwreck artefacts in their museum’s collection. When requested to summarise the relevant legislation, two respondents referred to websites (one simply stated “look on the website!” giving no specific details [W011] while the other actually named the relevant Commonwealth Department, HSA and state legislation [W008]). Four distinguished between commonwealth and state legislation and indicated that shipwrecks and associated artefacts were covered. Respondents W010 and W013 simply named the commonwealth and state acts. Two participants recognised that
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Artefacts cannot be legally removed from shipwrecks without permission from the government [W001 and W002] and W003 stated that there was protection for shipwrecks over seventy five years old. W006 reported the necessity of listing artefacts with the Department of Environment and Heritage.

Question nineteen asked the relevant qualifications of the museum workers. An interesting diversity of degrees and course completed is revealed, as was predicted. The following is a summary of highest qualifications achieved by the museums workers. There were two PhD’s in Archaeology, and one in Social History [W009 and W005]; two Masters degrees, one in history and fine arts and the other unspecified [W013 and W011]; three Graduate Diplomas in maritime archaeology [W007, W010 and W012] and one respondent stated that they had completed a relevant university degree but did not specify if this was undergraduate, masters or PhD [W008]. One respondent demonstrated skills in diving, historical research and publication [W003]. One participant listed a disaster management for museums course [W001]. W002 and W006 stated that they had no relevant qualifications. The final remaining participant did not complete this section and stated that they had no relevant qualifications [W004].

Visitor Questionnaires

The responses to the visitor questionnaires revealed information about visitors’ previous experiences with the aquatic environment and museums as well as their knowledge of issues relating to shipwrecks and their preservation. Also, data concerning visitors’ expectations of and interactions with shipwrecks in museums was collected. The final area of research involved assessing visitors’ knowledge of maritime archaeology.

Visitor questionnaires were sent by post or email to the fifteen museums listed on page 28. There was a sixty-seven percent return rate with ten museums sending the questionnaires back [not M002, M030, M038, M047 and M059]. Altogether one-hundred and twenty responses were received for analysis. All quantifications of responses will be given in percentages for ease of comparison in the discussion section.
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Visitors and the Aquatic Environment

According to question one, the majority of participants have lived within a twenty minute walk of the water during their lives (78%). However this does not reflect the amount of aquatic activities completed by the visitors with only 35% regularly participating in water activities. 69% of visitors had encountered a shipwreck or information about one at some previous time. An encouraging 83% of visitors answered that they had an interest in maritime history or archaeology while fourteen percent honestly stated they had no interest in these topics and three percent did not respond. It was interesting to note that there were no non-responses to the first three questions.

Visitors and the Museum

“Isn't all exhibitions in public institutions meant to attract visitors?!”

[W011]

Answers from question five revealed that the most popular response concerning why visitors came to the museum was to learn about maritime history or archaeology with 56% of visitors ticking this option. This was closely followed by 44% of visitors coming to see old objects from shipwrecks.

Figure 31. Graph of the responses to question five, why the visitors came to the museum. Response options: 1. shipwreck objects, 2. learn about maritime history/archaeology, 3. know some in a shipwreck, 4. know someone with shipwreck object, 5. show museum to someone, 6. came with someone, 7. passing by, 8. other.
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Question six revealed encouraging data pertinent to this study. Answers showed that 67% of respondents predicted that these museums would contain historical stories of shipwrecks while 63% believed that objects from shipwrecks would be on display and 53% percentage expected personal stories from the sea to be located in the museum. 53% of visitors also predicted that ship models would be on display. 48% of visitors expected objects to be examined for information about the past. 45% expected to see treasures from shipwrecks. 39% expected to learn about the reasons for shipwrecks. Only 25% of respondents predicted underwater investigations of shipwrecks. 17% has other expectations.

![Question Six Responses](image)

Figure 32. Graph of responses to question six, what the visitors expected to see at the museum. Response options: 1. shipwreck objects, 2. shipwrecks tell about past, 3. historical stories of shipwrecks, 4. ship models, 5. shipwreck treasures, 6. reasons for shipwrecks, 7. personal stories of sea, 8. ship construction methods, 9. underwater investigation of shipwreck, 10. other.

Question seven may seem to have been a fairly obviously answered question and of course all but one participant stated that they enjoyed the museum, otherwise they would not have completed the questionnaire.

The majority of visitors indicated in question eight that the most interesting aspect of museums was reading the historical and personal stories of shipwrecks. 56% of respondents gave this answer in question eight. 46% of visitors enjoyed looking at old objects from shipwrecks. There was very little difference between the popularity of ship models, the investigation of shipwrecks and other issues not listed as a choice, these options were all given by approximately 28% of the participants. Only 17% of visitors found objects made from pieces of shipwrecks at all appealing.
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Figure 33. Graph of responses to question eight the most interesting aspect of the museum according to the visitors. Response options: 1. historical or personal shipwreck stories, 2. shipwreck objects, 3. remodeled sections of shipwreck, 4. ship models, 5. underwater investigation of shipwrecks, 6. other.

Over half of respondents claimed to have read as many artefact labels as possible (51%) and overall 14% of visitors said that reading the information provided, had been a rewarding and enjoyable experience. 17% of participants stated that they read some artefact labels, 12% both read labels and looked at artefacts and four percent claimed they did not read as many labels because they attended a guided tour. 16% did not respond. This open-ended question inspired multiple confusing responses and would have been more effective as a closed question with tick box options.

**Visitors and Maritime Archaeology**

“They haven't a clue about the potential of shipwrecks” [W004]

Question ten revealed some interesting insights into the minds of the participants. The majority (79%) held the opinion that maritime archaeologists were interested in the history and treasure hunters were in it for the money. Other popular ideas were that archaeologists were in the pursuit of knowledge, answers, preserving for museums and honour while treasure hunters were in it for the thrill and possession of things. Another distinction was made that archaeologists conserve what they find while treasure hunters do not. No respondents gave a wrong answer. Only eight percent of visitors admitted that they did not know the differences between maritime archaeologists and treasure hunters. The 26% of visitors that did not respond to this
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question can be assumed that the issues are still not sufficiently clear or they did not know.

The answers to question eleven were encouraging to archaeologists and cultural heritage managers with 85% of respondents stating that people did not have a right to take artefacts from shipwrecks. Unfortunately 20% of visitors believed that it is permissible to remove shipwreck artefacts and five percent held the slightly misconstrued view that people had the right to take artefacts from shipwrecks if they handed them in to a museum. Only four percent did not respond to this question.

Question twelve followed on from the previous question and asked participants if they believed that people had a right to keep artefacts from shipwrecks or whether they should be turned in to authorities. A variety of answers were recorded to this question and they have been grouped into four categories of: hand in artefacts, keep artefacts, vague position and non-response. There was an excellent response rate of 83% to the idea that artefacts should be handed in. Four percent stated outright that they were allowed to keep artefacts, seven percent gave vague answers that could be interpreted either way and six percent did not respond. Of the 100 ‘hand in’ responses, there were a small number of responses (15) that were particularly encouraging that museum visitors thought that artefacts should be handed in for everyone to enjoy. There were only three concerning responses where visitors thought that it was permissible for people to keep artefacts from shipwrecks if they had a personal connection to the item. Five participants wrote that they would hand in an artefact if they did not find a connection while other stated that they would hand in an artefact if it was significant. Many indistinct responses were received from this question and multiple tock box options would have been more effective.

Question thirteen revealed some interesting information about the number of visitors that were knowledgeable about shipwreck protective legislation. Over half (53%) recorded that they were aware that there were laws protecting shipwrecks while 44% did not know and three percent did not respond.

Question fourteen asked further questions about the visitors’ relationship with museums containing shipwrecks. 66% of visitors had previously been to another museum to view shipwreck material while 31% had not and three percent did not respond.
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Continuing on from this idea was question fifteen where participants were asked to recall the museum where they had seen shipwreck information and what they could remember of this visit. This was to monitor the long term memory effect of museum visitation. This question had a very high no-response rate of 36%. 31% of visitors only wrote the name of the museum previously visited and did not answer the second part of the question. Eight percent of visitors recorded the name of the museum and the major shipwreck display inside, another eight percent wrote down the museum and made some comment about the artefacts. Seven percent wrote down the museum name and remarked upon the type or level of information, three percent observed the state of artefact preservation and another three percent considered the stories a memorable aspect of their visit. Four percent of respondents recalled viewing shipwreck information but could not remember specifics.

Question sixteen also investigated the visitors’ interactions with museums containing shipwrecks. The most visited museums were ANMM and MMT with 36% each, then WAMS with 27% and QMM with 24%. The following data is in regards to visitor attendance at museums other than the one in which they completed the questionnaire. The most popularly visited museum in this case was still the ANMM (30%) but this was closely followed by FHMV (20%). Question sixteen revealed some interesting data concerning multiple museum visits.

Visitor Demographics

With regard to the demographic questions, approximately the same number of females and males visited the museums that participated in the questionnaires (48 and 49% respectively with the remaining three percent of non-response).

The largest number of respondents came from the 60-74 age bracket (31%) closely followed by the 45-59 group (30%). 21% of visitors were aged 30 to 44, thirteen percent were in the 18-29 age group, three percent formed the 75 and over bracket and another three percent did not respond.

Technical or trade qualifications were the most common highest level of training among the participants (31%) but this was closely followed by 30% of visitors achieving high-school as their highest schooling level. A large number of visitors held post graduate degrees (21%) with only thirteen percent completing undergraduate degrees. No visitors had finished their studies at primary school level and only five percent were unwilling to report on their level of education.
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The majority of museum visitors were from the same state as the museum however there were two international visitors to complete the questionnaire, someone from the Netherlands was visiting the WAMM and another from Ohio visited The Melbourne Maritime Museum.

Summary

There are many different methods utilised to represent shipwreck artefacts and information, as was deduced from visiting the twenty-nine museums. Summarising the data collected through the two questionnaires proved that there were certain trends in museum workers’ practices and opinions and in museum visitors expectations and levels of knowledge. A detailed analysis of the data collected from the museum visits and the two sets of questionnaires provides some compelling factual material for discussion in the following chapter.
5. Discussion

Introduction

Australia has fifty-six museums to represent its’ extensive shipwreck cultural material and associated information. Each of these institutions approaches this task in an individual manner and a large amount of data has been collected to prove this. It is difficult to summarise this large data set and do justice to all of the contributing factors. However, some broad generalisations, taken from the preceding data, will now be analysed to evaluate the manner of representing shipwreck information and to highlight the successes and limitations.

Comments on Data Collection

Although the museum visits were time and money intensive, the use of these resources was well worth the investment considering the information gathered. As predicted, this fieldwork did allow the identification of shipwreck representation methods and gave the researcher an insight into the variety of museums in Australia.

Admittedly, the investigation of museum institutions was not without flaws. With experience, a standard corpus of information to be collected at each museum was established that did not exist for the earlier museums. Therefore, the museums that were visited at the beginning of the research period were not as fully documented as the latter.

Similarly, the questionnaires were the most appropriate data collection method but also had their drawbacks. The questionnaires were suited to unmonitored evaluation methods however, due to the operations of some museums, the questionnaire distribution and collection was difficult. Also, upon reflection, some of the questions would have been more effective if they had been reworded. Responses to visitor questionnaire questions nine and twelve would have been more effective if they had been designed as closed questions rather than the current open questions.
Chapter 5. Discussion

Summative to Potential Front-End Evaluation

What sets the present study apart from others is that it evaluated both sides of the museum process – the worker and the visitor. Museum evaluation is a common occurrence however it is usually the museum staff evaluating the exhibition and the museum from the perspective of the visitor, to see if the curator was successful in communicating the message. In this thesis, the researcher was the third person in the museum communication process and therefore could objectively analyse the data.

This was essentially a summative evaluation study of numerous museum exhibitions. However the main purpose of summative evaluations is to prove whether the exhibition brief objectives had been achieved, and this did not take place in this thesis. The primary goal of this research was to evaluate the overall success of a particular topic (not exhibition) in museums, that being, the representation of shipwrecks. This goal has clearly been achieved with the summative evaluation process collecting data that will be useful for front-end evaluations of future displays and exhibitions.

Ideal Shipwreck Exhibitions

Shipwreck Related Subjects

An overall trend noticed on museum visits was that the majority of museums had exhibitions on local shipwrecks. This was further supported by information from the questionnaires. The worker questionnaires showed that displays on local shipwrecks, and how they relate to local history, were the most popular subject matter for exhibitions. Although there was no direct question posed to the visitors about their preferences for exhibitions on local shipwrecks, it can be deduced that historical and personal stories about shipwrecks were popular with visitors based on the responses to questions six and eight.

A special case must be made of the representation of VOC shipwreck artefacts in museums. Three museums contain artefacts from the Batavia, Zuytdorp, Zeewijk and Vergulde-Draeck and these are The Western Australian Maritime Museum Shipwrecks Galleries, Western Australian Museum Geraldton and the Australian National Maritime Museum. While the two museums in Western Australia represent the shipwreck artefacts in the same manner – as individual shipwrecks with separate
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displays showing the different events involved in history, the ANMM uses VOC artefacts in its thematic exhibition on early explorers of Australia. This is an interesting example of how the same shipwrecks can be successfully displayed by different means.

The smaller community museums that were run by volunteers tended to design displays and exhibitions of shipwreck material as an open storage, meaning all artefacts in the collection were on display with varying degrees of interpretation. This was in juxtaposition to larger government supported museums that had curated exhibitions where artefacts were selected to fit a certain purpose in the display.

Incredible Interpretation

Interpretation methods proved to be mostly satisfactory on all fronts – they complied with the recommended standards and captured the attention of the visitors. The level of interpretation at the visited museums was mostly satisfactory according to the four tiered hierarchy of interpretive labels. Despite this, there are a few museums needed to update their artefact labels to raise the standards of interpretation in their institution to reflect the potential information contained within their collections. These museums are: Queenscliffe [M024], Robe [M031], Port MacDonnell [M028] and the South Australian Maritime Museum [M038].

Queenscliff and SAMM had inconsistent labelling throughout the museum with some being handwritten in faded copper plate while others were professionally printed. Some of these labels were beautiful, they were almost historical themselves however they needed further interpretation or transcribing so the visitors were able to read the information without too much effort. At Robe museum, all of the labels were handwritten, and this should be amended for quality interpretation through printed labels. The only criticism of Port MacDonnell [M028] was that the handmade titles in ‘courier’ style brought down the otherwise professional tone of the exhibition.

The responses to the worker questionnaires proved that labels were the most common form of interpretation even though more interactive practical methods would be have been more effective, if more expensive. In regards to the visitor questionnaire, the interpretive methods question was possibly the least well constructed in both sentence structure and formatting (an error that was not noticed prior to distribution). Therefore it was difficult to interpret some of the responses.
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However on the whole it was deciphered that the majority of visitors claimed to have bee interested in reading the labels. In future developments of this area of research, a revised questionnaire using the tick box options of: object labels, section labels, introductory labels, interactives, videos and multimedia, would be a more effective question to gain more detailed information about this subtopic. This would be difficult due to the variability of interpretation methods between museums but some solution would sure to make the question valid for most museums.

Museum Workers

The preconceived ideas of museum workers concerning maritime archaeology and history were deduced by examining questions eleven, fifteen and nineteen as these questions were the most informative about the workers’ personal beliefs and ideas. The responses were examined for the workers’ preferences for history or archaeology with some suggestions of cultural heritage management [W005 and W010] and amateur archaeology [W003] leanings observed as well. The results were not as revealing as expected, it was predicted that clear partialities would appear however this only occurred for a few of the workers. W001, W002, W006 and W013 had distinct historical preferences while W007, W008, W009 and W010 were noticeably archaeological in focus. Perhaps W005, W011 and W012 were the most well-rounded in their opinions of history, archaeology and museums while W004 did not complete any of these questions and W014 was difficult to interpret.

The worker questionnaires revealed that five participants were unpaid volunteers and nine were paid professionals. Eight of the paid workers had relevant university qualifications and the ninth did not respond however it is known from previous research that they also do have university qualifications. An interesting and encouraging point to note is that two of the volunteer workers took it upon themselves to undergo relevant training for their amateur position and another appears to have learnt appropriate skills through personal research.

Museum Visitors

By summarising the responses from the visitor questionnaires some interesting trends about people that attend maritime related museums became apparent. The majority of museum visitors in this study were familiar with the aquatic environment as 78%
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had lived near the water and 69% had previously encountered shipwreck cultural material and 83% had an interest in maritime history and archaeology. However, aquatic fitness activities were particularly unpopular (35%). Two thirds of the participants were familiar with the museum environment particularly the maritime museum environment having been to at least one other museum containing shipwreck artefacts. 24% of visitors had been to two maritime related museums, 12% to three museums, eight percent to four museums, six percent to five and four percent to six museums. There were eight very dedicated museum visitors who attended more than seven museums each and even three museum visitors had been to fifteen maritime museums! From this information it was clear that there were a considerable number of avid maritime museum visitors that obviously enjoyed attending the museums to learn about shipwrecks along with other maritime matters.

Visitor learning

Museum practitioners acknowledged the difficulties of monitoring visitors’ level of learning while in the museum. The evaluation methods used in this study allowed the visitors’ current knowledge level to be assessed but was unable to qualify the extent to which the most recent museum experience had contributed to the knowledge bank. However, as will be discussed in the future applications section of the following chapter, it is possible for the questionnaires to be altered to allow the learning process to be assessed.

The visitor questionnaires revealed that similar numbers of men and women visited museums containing shipwreck artefacts. The majority of visitors attending the museums in question were between 45-74 years of age. The highest level of education reached by the majority of visitors was a technical or trade qualification closely followed by graduating from high school. This does not correlate to the museum attendance figures gathered by the Australian Bureau of Statistics in 2002 (4114.0) which stated that museum visitors tended to have university degrees. Perhaps this can be explained by the nature of the maritime museums subject matter as opposed to art galleries or the equivalent that might attract more academic visitors. The data collected in this thesis could be compared to other census and statistical information to allow an Australia wide perspective on the research, however the temporal restrictions did not allow for this.
Maritime Archaeology in Museums

“archaeology museums are the future of the past.” (Pearce 1996:203)

Archaeology in museums has two distinct and very important purposes: presenting information through artefacts and educating the public about the discipline of archaeology. The most obvious purpose of archaeology in museums is the artefact based transmission of ideas concerning all aspects of the human past, particularly information not available through historical sources. People who visit museums usually have a desire to encounter ‘real things’ and the visitor questionnaires have adequately proved this point. This is where archaeology comes to the fore, because archaeological field methods ensure that the maximum amount of information is recorded with the associated artefact. When selected pieces of information are coupled with ideal exhibition design (as outlined above) and the artefact, a worthwhile museum experience is created for the visitor.

The other major point in this argument is that museums are the best way to demystify archaeology and justify to the community and government why maritime archaeology is necessary (Hosty in press). Teaching museum visitors about archaeology can only have a positive effect on the discipline since the visitors can then either passively or actively support the discipline. In regards to maritime archaeology, museum visitors would passively support archaeology by not taking artefacts from shipwrecks while others might chose to actively support archaeology by joining a vocational association such as the Society for Underwater Historical Research.

Australia is a leader in maritime archaeology and there are several museums and exhibitions that represent shipwrecks from an archaeological perspective however there is still the potential for a more successful use of archaeology in maritime museums.

Maritime Archaeologists Versus Treasure Hunters

“one preserves the other plunders” [V060]

The issue of maritime archaeologists versus treasure hunters was raised in both the worker questionnaire (question fourteen) and the visitor questionnaire (question ten). Comparison of responses to these questions showed a remarkable difference in
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opinion, in fact, workers do not appreciate their visitors’ comprehension of the matter. 50% of museum workers believed that visitors could not distinguish between maritime archaeologists and treasure hunters while questionnaire responses proved that 66% of visitors could correctly describe the different motivating forces behind these two occupations. This is an optimistic result in regards to visitors’ knowledge of this issue and it is a simple matter of updating workers perceptions. However, there is still room to improve upon the 66% of erudite visitors by increasing the maritime archaeology content of shipwreck related exhibitions and emphasising the importance of context and other archaeological principles.

Shipwreck Protection Legislation

"The taking of artefacts from shipwrecks in a spontaneous and unscientific manner is an understandable impulse but such behaviour diminishes the value, culturally, socially, historically and archaeologically, of the shipwreck and deprives the community for the benefit of a few people." (Coroneos and McKinnon 1997:1)

Both questionnaires asked complementary questions regarding shipwreck preservation legislation (question seventeen of the workers questionnaire and question thirteen of the visitor questionnaire). As should be expected, the majority of museums workers were aware of the relevant legislation that protects the shipwreck artefacts at their museums. Surprisingly, just over half of visitor participants had some idea of these laws which is excellent to ensure the protection of shipwreck cultural material. Despite these encouraging statistics, more than the current seventeen museums should include a display or somehow integrate information about shipwreck legislation into their exhibitions.

Other legislation related issues evident in the collected data was attitudes to taking artefacts from shipwrecks. It is interesting to note that the worker attitudes to people that take artefacts from shipwrecks were far more pragmatic than expected. The majority said that they could understand that artefact removal was a regular pastime before legislation but that now these people were law abiding. Fortunately, this hypothesis is also proven by the visitor questionnaires statistics with 71% of visitors agreeing that artefacts should not be taken from shipwrecks. This is a substantial amount of people with the correct understanding of shipwreck protection laws and
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ethics, however, this should not mean that museums and maritime archaeologists should not become complacent about this important issue.

Question twelve further developed the ideas about shipwreck artefacts and ownership. Visitors were asked about the publics’ right to keep shipwreck artefacts and if they believe they should be handed in to governmental authorities or not which refers to *HSA 1976* Part II s. 11. This question did not specify whether the shipwreck artefact had been recently found or whether they had been in possession since before the enactment of *HSA 1976* it was merely asking for a general principal belief of the visitor as to whether at any time a member of the public should be in the possession of a shipwreck artefact. An encouraging 83% of visitors believed that shipwreck artefacts should be handed in to museums and quite a number of people understood the reasoning behind this which is an important point. It is not enough for visitors to know that it is illegal to keep shipwreck artefacts, it is imperative that they understand it is for the benefit of the artefact and for public heritage accessibility.

**Summary**

These are just some general conclusions that have been deduced from the data collected from the museum visits and the questionnaires. It would be possible to construe many other ideas regarding: shipwrecks, museums, visitor preferences, worker preconceptions, exhibition design and interpretation methods from the raw data but this is not feasible in the current forum due to time and space restrictions.

The value of this study resides in the distillation of data collected from two randomly selected but targeted groups of individuals with in some sense a common goal to enjoy and benefit from the social and historical aspects of shipwrecks. This section has evaluated the apparent views and beliefs of museum workers and of museum visitors on matters related to the representation of shipwrecks. There are encouraging trends evident on the preservation of shipwrecks and artefacts and yet there remains this apparent conflict on how best to appreciate and yet preserve these unique objects.
6. Conclusions

This thesis gathered a considerable amount of information through fieldwork and qualitative evaluation to provide a source of data with which to answer the question – how are shipwrecks represented in museums? Responses from fourteen museum workers provided information about a range of issues pertinent to exhibition design, visitors and maritime archaeology. In particular, the techniques of creating shipwreck exhibitions were revealed as well as the workers ‘ideal’ exhibition regarding shipwrecks.

Methodology Established

By visiting twenty-nine museums throughout Australia, the researcher gained an intimate understanding of how the many types of museums manifest the representation of shipwrecks in museums. From the information gathered at these museums, physical methods of representing shipwrecks through exhibition and display designs were constructed and an understanding of the varying types of museums and how they are operated was reached.

This research project established a successful methodology for researching the topic of shipwrecks in museums. Although the process was not without fault, the issues (such as communication with community museums and workers facilitating the questionnaires) have been identified and can be adjusted for more successful results at a future expansion of the project. This methodology is also appropriate to use in examining other topics in museums that are not limited to maritime issues.

Ideal Exhibition Identified

The most common and effective method of representing shipwrecks in museums is as follows. The subject of the exhibition is on shipwrecks in the region and is related to local historical events and people’s stories. Real artefacts taken from shipwrecks are used as the focus for the exhibition with sufficient interpretation labels using the four tiered hierarchy system to place the artefact in context. The labels should be succinct and include graphics if necessary for the interpretation such as showing how an artefact would look restored. Artefacts can be grouped together in themes or related groups which adds to the information expressed in the exhibition. This style
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of exhibition is adaptable to the restrictions of: museum worker skill and knowledge, museum collections, financial limitations and spatial arrangements.

**Museum Workers**

Through questionnaires, informal discussions and observation of exhibitions, an understanding of the types of museum workers and their preconceived ideas has been deduced. Museum workers in the institutions in this study had a diversity of training levels but a common goal – to protect and present the past. Within this singular heritage persuasion there were workers who preferred the different methodologies of museology, archaeology and history. The final important generalization to arise from this study of workers is that there is an overall misunderstanding of visitors’ knowledge of shipwrecks’ as valuable heritage that must be corrected.

**Museum Visitors**

Visitor questionnaires supported previous assumptions that Australians are a coastal people, quite in touch and eager to learn about their maritime past. Museum visitors are interested to learn about the local effects of shipwreck disasters and are prepared to read interpretative labels to achieve this knowledge but they favour the real artefacts above all. Quite surprisingly, there is an appreciation of the value of shipwrecks as cultural heritage that should be preserved and displayed for the benefit of all. However, this point should continue to be emphasised at museums wherever possible.

**Maritime Archaeology**

With the current archaeological trend for *in situ* preservation of shipwrecks, there is less likelihood of receiving large collections of artefacts into museums. Most new acquisitions will be from de-contextualised artefacts raised in the past before legislation or recently by illegal means. Therefore it is the exploitation of current museum collections for which this study is useful. There are a few larger museums that display shipwreck artefacts in an archaeological manner to serve the dual purpose of revealing the information contained within the artefacts as well as demystifying archaeology as a discipline. In the future, more emphasis should be placed on archaeological representation of shipwrecks in museums to satisfy the
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visitor, develop exhibitions and successfully utilise museum collections wherever possible.

Applications for the Future

Although the thesis is now completed, the project will continue by disseminating the research and conclusions to the participating museums and other interested parties. Summaries of this research and personalised reviews of individual institutions will be sent to all participating museums so that an evaluation of the shipwreck related exhibitions will be possible. Several of the museums have specifically requested receiving this information as they saw the value in the research.

There is enormous potential to review, improve and expand the project to provide more detailed and valuable results. Some suggestions on how this could be done will now be outlined. In a reviewed version of this research project, the questionnaires would be rewritten to gain more specific responses allowing a greater degree of comparison within the worker and visitor categories and between them. In particular, the questions regarding methods of interpretation in both the worker and visitor questionnaires would be re-written to provide more concrete and detailed answers.

A method of improving the study would involve adapting the questionnaires to establish a before and after participant group to evaluate the effects of specific exhibitions and separate this information from the visitors’ previous experience. This standard procedure in museum evaluation would require more funding as the researcher or others trained in would need to facilitate the questionnaires or even administered surveys to achieve that purpose.

The project could be expanded in two ways. The current thesis did not use all of the collected data due to temporal and spatial limitations. A more detailed analysis of the results would include a comparison of the questionnaire results between the ten museums that supplied worker and visitor evaluations. Some interesting conclusions about the different methods of representing shipwrecks in different museums, would be observable from this analysis. Also, the information collected from this project about museums and their operations could be compared to Australian statistics and census results to orient the conclusions of this thesis within the greater Australian museological perspective. Another way of expanding this project would be to visit
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all of the fifty-six museums and complete the two questionnaires at more if not all of the museums within the study. This would allow a comprehensive understanding of the issue of how shipwrecks are represented in museums. As this research has proven, the representation of shipwrecks in museums is an important issue for a variety of reasons, none of which are particular to any country. This area of research has worldwide potential. Around the world there are thousands of museums that could benefit from this specialised museum evaluation on shipwrecks. Only funding, permission and logistics are required to transfer this Australian based study to the world stage.

A side project has been brought to the researcher’s attention during the fieldwork of this study. In collaboration with the enthusiastic volunteer Veronica Jenkins from the Port MacDonnell and District Museum, a pamphlet advertising maritime museums throughout South Australia will be produced in the near future. As a tourism venture, this pamphlet will allow interested members of the public to travel from one maritime museum to another with all important information such as address, opening hours, prices and collections enclosed in the one booklet. There is also the potential to expand this South Australian pamphlet into a series of information booklets on maritime museums for each state of Australia. All of the information for these publications has been collected during this study, now all that remains is funding, museum involvement and production.

This thesis on how shipwrecks are represented in museums from the perspectives of museum workers, visitors and through exhibitions has been a worthwhile and practical study. The end product is a resource for Australian museums containing shipwreck artefacts, but with the potential to spread worldwide to benefit the museological, historical and archaeological communities.
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