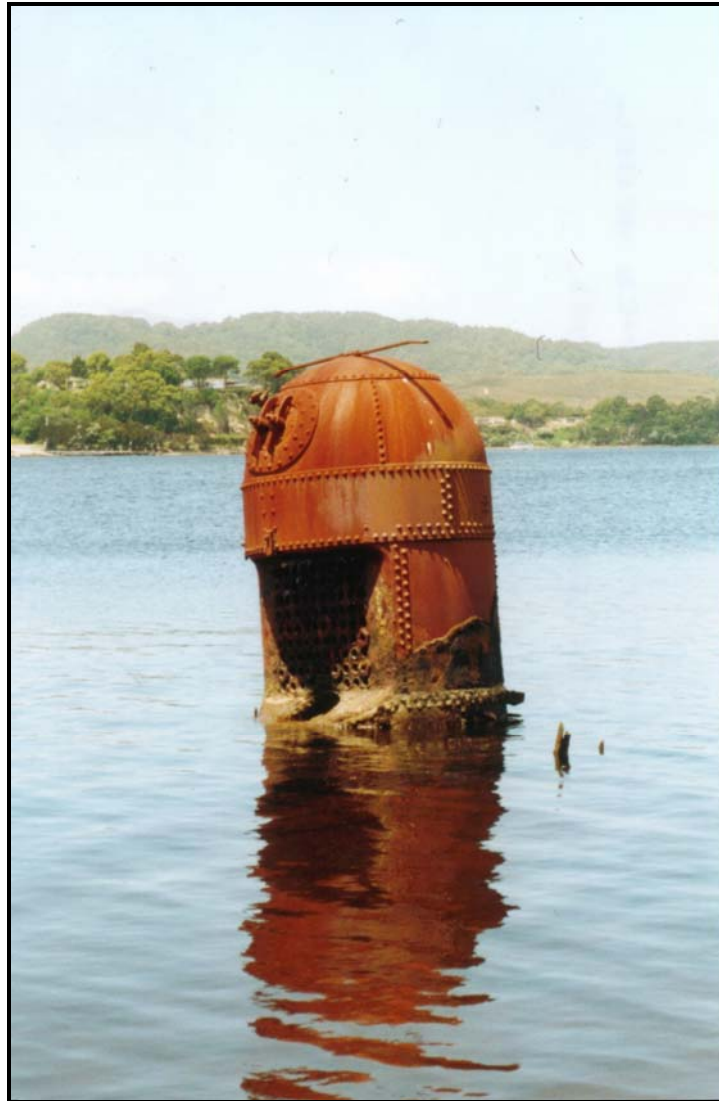


Australian National Abandoned Vessel Database (ANAVD)

Volume 1:

*Introduction*  
*Database Specifications*  
*Guide to Nomenclature*  
*Reference List*

First Edition



*Nathan Richards*

**Cover:**

Abandoned boiler of unidentified watercraft, Mill Bay, West Strahan Tasmania  
Photo: Nathan Richards 20/12/2000.

### Introduction to the First Edition

This volume is the first in a series of nine volumes of data collected over the period 1997 – 2002 pertaining to deliberately discarded watercraft in Australia and Australian waters. The sequence of the volumes following Volume 1 outlines each state of Australia alphabetically. Volume 9 represents abandoned watercraft where the state of discard could not be located during the study.

<b>Volume 1:</b>	Introduction: including database specifications, guide to nomenclature and reference list
<b>Volume 2:</b>	New South Wales
<b>Volume 3:</b>	The Northern Territory
<b>Volume 4:</b>	Queensland
<b>Volume 5:</b>	South Australia
<b>Volume 6:</b>	Tasmania
<b>Volume 7:</b>	Victoria
<b>Volume 8:</b>	Western Australia
<b>Volume 9:</b>	Unknown State

This introduction refers to the work as the first edition as the data contained herein represents a provisional data source. For reasons outlined in the archaeology doctoral thesis accompanying these volumes by the author titled *Deep Structures: An Examination of Deliberate Watercraft Abandonment in Australia* (Flinders University, 2003) abandoned vessels are generally not as visible in the historical record as their catastrophically lost counterparts. This is also a reason for the inclusion of the ninth volume of vessels discarded in “an unknown state” – it is hoped that over time the vessels listed in this volume will be excluded or integrated into the other volumes. It is also expected that between editions more discarded watercraft will need to be added to these volumes, and that details pertaining to particular watercraft will need to be amended. In some cases candidates may need to be removed as more details regarding the circumstances of the discard and loss of watercraft come to light.

Following the completion of the aforementioned doctoral thesis, and at the time of the compiling of these volumes some amendment to the information of the ANAVD has occurred. In particular, work in Tasmania has seen candidates added and removed from the database, and has also caused some augmentation to existing data.

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## Introduction

This first volume serves as the chief guide to data comprising the *Australian National Abandoned Vessel Database* (ANAVD). This data exists in two forms, as the *Access 2000* database created by the author for analysis in his doctoral thesis completed in the Department of Archaeology, Flinders University (Adelaide, South Australia) in 2002 (available by contacting the author), and subsequently printed as nine volumes in 2003 (of which this volume is a part).

This particular volume is designed to serve as both data dictionary, outlining the specific explanations of the nomenclature used, and as the source of references for the information found in each subsequent volume.

The explanation of nomenclature in this volume represents the understanding of the literature at the time, which needed to be defined due to changing meanings of nautical terms between nations, and often across regions, for communicating assumptions, and for standardizing definitions. Additionally the classification of the data was required in order to show the logic behind the grouping of data together, and the interplay between linked sets of information.

The data sheets of abandoned watercraft following this volume have used a referencing system similar to that found in such works as *East Coast Shipwrecks: A Thematic Historical Survey* (Jordan 1995). This system comprises of a sequential number system within each specific record that is attached to a reference within the record itself, and also to a citation found in this volume. Hence a notation of “\*1” against information in a vessel record, may refer to the notation “\*1 Loney 1971: 56” in the reference list of the record and in turn will refer to a specific place in the work *Victorian Shipwrecks: All Wrecks in Victorian Waters and Bass Strait, Including King Island and the Kent Group* (Loney 1971). The sequence of numbered references is unique to each record, and reflects the initial discovery of the vessel in a text, and subsequent references to it.

What follows is a brief description of the database, the guide to nomenclature, and the reference list.

## Database Specifications

The ANAVD is a fully relational-database originally established in *Microsoft Access 1997*, and is currently in *Microsoft Access 2000*. The vast amount of data that has been presented in the body of Volumes 2 through 9 is a product of a report function created within the database that was subsequently printed to file with *Adobe Acrobat Writer* and merged with other word files and maps created with *ESRI Arcview*.

The database itself is still being amended and added to by the author as a part of ongoing research. Researchers wanting access to the database itself should contact the author himself



## Guide to Nomenclature

### Introduction

Below is the list of fields in the *Australian National Abandoned Vessel Database* (ANAVD). This outlines the fields used within the database, the historical definition of field attributes, and explains the reasoning behind the use of specific terminology and maritime nomenclature in the ANAVD. The list is separated into *Sections*, which groups categories of data. These sections were grouped according to seemingly related types of data, as well as constituting groupings in the actual database, which facilitated the easier entry of data from certain standardised forms of historical literature.

Some of these fields were included for future research, and do not include comprehensive data because they were not intended for use in the analyses carried out in this research. Additionally, some fields represent evolving classificatory schema. As a consequence of this, some fields may currently include terms that overlap with other terms. Every attempt has been made to acknowledge this.

### Section 1: Identification & Build

The identification of vessels has proceeded in two ways in the database. First, a system of tagging records was required for the tracking and comparison of the data within the ANAVD. Second, fields were included that noted the traditional registration methods for the identification of the vessels.

#### *Identification Tag:*

In order to create a relational database that could be used in the analysis of vessel data, as well as link tables containing other information, a unique number was attached to each individual record contained within the ANAVD. This number is essentially an automatically generated number sequentially arranged in relation to the creation of new records of individual vessel entries. This enforces referential integrity between records, and also serves as the means for the linking of tables.

#### *Name of vessel:*

This field contains the last known name of the vessel, or the name given to the vessel as an unidentified entity. The naming of a vessel is important for historical purposes, as it provides a way into historical registers, in order to obtain additional elements of the vessel in question such as dimensions, origin and date of destruction/removal.

*Ex-name(s) of vessel:*

This field contains all known previous names of a particular vessel. The ex-names of a vessel allow for its archaeological remains to be traced back through time. This allows for a greater understanding of the development of the vessel historically, through changes in geography and ownership while also exposing changes that might have been made to the structure of the vessel through amendments or upgrades.

*Official Number (O/N):*

This field contains the official number of the vessel from its primary register. In most cases, this is a number from the *Lloyds Register of Shipping*, the primary register for merchant vessels trading in Australia, and is often also reflected in Customs House Register documentation after 1855 (Farr 1969: 10). In cases where an alternative shipping register is used, as in the case of certain American traders, a prefix is added (for example in the case of the *Dorothy H. Sterling*: US200005).

The official number of a vessel was theoretically similar in type to the identification tag that was created for this database. It was intended to be a unique number that would last throughout the entirety of the life of a particular vessel registered within a particular register, irrespective of any changes to the name of that vessel. In this way, any discrepancies caused by the re-naming of a vessel through its use-life could be traced by its official number. Some cases have been noted of vessels changing register (and hence being assigned a new official number), being so substantially rebuilt as to qualify for re-registration under a different number, or re-numbered under dubious circumstances (for instance, in the case of theft). The official number is supposed to be, “cut or punched on to the main beam of the vessel, but when this is inaccessible it is customary to have the number stamped on the after end of the forward hatch coamings” (Stevens 1947: 82 see also Lloyd’s of London 1981: 501; 1991: 380).

*Date of Build:*

This field contains the year the vessel was manufactured. It is one of the most crucial in any analysis. Used in conjunction with aspects of original configuration, an analysis of technological preference and technological innovation can be attempted. When analysed in relation to the date of abandonment, an analysis of the trends in use-life can be undertaken. Lloyd's of London (1959: 245 see also Lloyds of London 1965: 260) defines the date of build as:

The date of completion of the Special Survey during construction of ships built under the Society's inspection will normally be taken as the date of build to be entered in the Register Book. If, however, the period between launching and completion or commissioning is, for any reason, unduly prolonged, the dates of launching and completion of commissioning may be separately indicated in the register Book.

*Place Built:*

This data concerns the location of the manufacture of the vessel. It is linked to a geographical location table, containing place, region, and nation. This field has been set up to allow for analysis on local, regional, statewide, national, and international levels.

*Builder:*

This field contains the name of the individual or company that manufactured the vessel. It is linked to a vessel/engine builder database that lists name, location, and whether the builder made vessels and/or engines.

*Status:*

This field contains data on the archaeological status of a particular vessel. It is used primarily for the choosing of vessels for study, and due to the large number of vessels served as a means for excluding vessels for active investigation. It is also included to show which vessels have been included in previous archaeological studies or investigations. The terms include:

- 1) *Definite Identification:* Where the located and surveyed archaeological remains of a vessel have been positively matched with an entry for a vessel in the ANAVD.

- 2) *Provisional Identification*: Where the located archaeological remains of a vessel have been provisionally matched with an entry for a vessel in the ANAVD.
- 3) *Unlocated*: Where a particular vessel in the ANAVD is not located.
- 4) *Unsurveyed*: Where a particular vessel in the ANAVD is located and believed to be matched with an entry for an ANAVD vessel, but has not been examined in this study.

## Section 2: Technology

### *Propulsion*:

This field contains the last form of propulsion that a vessel had prior to its abandonment. The table of propulsion types is separated into two sections. The first section is the “type of propulsion” and describes the general category, or how a particular vessel is defined as being propelled. The second section is the “means of propulsion,” which describes the method by which the vessel is propelled. This is best illustrated in the descriptions below which have been amended from Coroneos and McKinnon (Coroneos 1997: 30, Coroneos and McKinnon 1997: 20).

### *Types of Propulsion*

- 1) *Motor*: Paasch (1978:502) refers to a motor being any applied force acting upon a vessel, be it steam, sail, or hand power. In this study it refers to a motor ship or motor vessel that has a mechanical engine as its main motive power, usually in the form of an internal combustion engine running on a liquid fuel such as benzene, diesel, or petroleum (DeKerchove 1961: 523). There is some difference in motor engines across the board. These differences are mainly due to fuel sources and to some extent due to the type of ignition. Petrol or paraffin engines ignite through the electrical ignition of fuel and air vapour whereas diesel fuels require only an injection of air vapour in order to create ignition (Reed 1966: 87).
- 2) *None*: Where a vessel is not self-propelled, and is probably towed.
- 3) *Sail*: Where the main source of propulsion is force of the wind against a piece of, or assemblage of material unfurled and extended from a mast, boom, and yard (DeKerchove 1961: 673; Paasch 1978: 338; Kemp 1988a: 737-738).
- 4) *Steam*: Denotes where the vessel uses a type of engine that runs on steam power as its main form of propulsion, the main force being the rotary motion of shafts turning either screw or paddle (Paasch 1978: 7). As described by Embelton

(1966: 195), there are only really two truly distinct kinds of steam engine, the reciprocating engine and the steam turbine engine. All that steam engines really do is serve the conversion of heat energy (through an increase in temperature of water into steam) into mechanical energy (Embelton 1966: 250). The difference between the two types of steam engine chiefly concerns the motion of the shaft that serves as the main driving force of the engine. With a reciprocating engine the piston uses a static motion, which drives the shaft upwards and downwards whereas the turbine engine uses a dynamic rotary action. There are two types of turbine engine. They are classified as the “impulse” and the “reaction” turbine. A description of the engines can be seen in Embelton (1966: 250-256). It should be noted that turbine steam engines were a later development in steam technology, and as such, reflect a development that allowed for more efficient engines that extracted more work from heated steam than its counterpart. Furthermore, its thermal efficiency is drastically higher, its fuel consumption much reduced, as well as having negligible vibration, better balancing, less size necessities, less wear and less requirements for maintenance. Turbine engines, however, are non-reversible, and therefore, require a separate engine for moving astern (Embelton 1966: 258-260).

- 5) *Unknown*: Used for vessels where the means of propulsion is not described in historical sources.

#### *Means of Propulsion*

- 1) *Jet*: Refers to a vessel propelled by the intake of water and its expulsion through apertures in its stern (Paasch 1978: 8). This description refers to motor and steam vessels only.
- 2) *Paddle: Side Wheel*: Refers to two wheels being used as the main means of propulsive force mounted on the port and starboard sides of the vessel (Paasch 1978: 7). Only applies to motor or steam driven vessels.
- 3) *Paddle: Stern Wheel*: Refers to a wheel being used to propel a vessel that is mounted at the stern of the vessel (Paasch 1978: 8). Only applies to motor or steam driven vessels.
- 4) *Single Screw*: Used to describe a steam or motor driven vessel where there is one propeller and propeller shaft running down the centre of the vessel and leading to the engines (Paasch 1978: 7-8).

- 5) *Twin Screw*: Used to describe steam or motor driven vessels where there are two propellers being run off a single or multiple engines (Paasch 1978: 8).
- 6) *Triple Screw*: Used to describe steam or motor driven vessel where there are three propellers being run off of a single engine, or multiple engines
- 7) *None*: Refers to where there is no means of propulsion. Refers only to towed vessels or sail vessels without auxiliary power sources.
- 8) *Auxiliary Steam*: Refers to sailing vessels only that have small steam engines driving a single screw as a secondary propulsive force. Usually the engines are only used in calm weather or imminent danger (Paasch 1978: 7)
- 9) *Auxiliary Motor*: Refers to sail vessels only that have small motor engines driving a single screw as a secondary propulsive force.

In relation to the “Means of Propulsion,” if an entry is listed as belonging to categories of 1-6 and there is an entry in the rigging field, this denotes that the sail was a secondary source of motive power. If the entry is listed as being in either category 8 or 9, an entry in the rigging field denotes that sail is the primary form of motive power. In this way, certain elements of the “Type of Propulsion” field can never be association with the “Means of Propulsion” field. As described by Moore (1970: 83), vessels were only ever rigged with distinct primary and secondary variations of motive power for three reasons (that is where steamers were rigged with sails). First, to be used in cases of emergency or to ease the engines, second, on vessels with weak engines and a large sail area, and third, auxiliary powered vessels using engines in time of emergency or when there are light winds or calms. Generally it is accepted that there was a transition from vessels of the first type to vessels of the second type. With the development in the marine steam engine, by the 1920s vessels of the first type became extinct.

Turbine steamers, described by Paasch (1978: 8-9) as being of a separate category have not been defined sperately here, as turbine engines have the same propulsion type (steam) and means (screw) as other screw steamers. They are therefore considered simply another engine variation.

By having these as distinct lists, which can be married, it allows an analysis to be done on both the source, and the technique of propulsion.

*Engine Type:*

This field contains a description of the engines used in steam and motor vessels. While currently a list, in future versions it will be a linked table with standardised data outlining number of engines, type of engine, horsepower rating, type of horsepower, number of cylinders, type of boilers, and fuel type (see Sennett 1885: 26, Crawford 1939: 18, Guthrie 1971: 69-70, 171, McCarthy 1996: 392-394 for more information). The analysis of engines alone is worthwhile, as the type and aspects of each model are likely to be the most scrutinised aspects any prospective shipowner was to make in relation to a new purchase. The analysis done here could show the interlinked effects of reliability, cost, and even the marketing skills of engine builders.

*Engine Builder:*

This field is linked to the same table as the vessel builder field and shows the name of the builder of the last engine used in a particular vessel.

*Masts:*

This field simply contains numeric data on the number of masts that a particular vessel had.

*Rig:*

This field contains the last known rig of a particular vessel prior to its abandonment, and is used for the same reasons as described with the number of masts. Where information pertaining to the number of masts is not found, the mention of a specific kind of rig informs us of the number of masts on the vessel (not in all cases). Rigging present on steam vessels in an auxiliary manner is an indicator of the technology and effectiveness of the steam engines used in its propulsion. One other important consideration in the use of rig as a meaningful descriptive field is outlined in Moore (1970: 51) who states, “generally ... it is the ocean-going ship that is square-rigged and the coaster that is fore-and-after.” Rig also often denotes speed, manoeuvrability, stopping ability, stability, and the capacity of a vessel. Although rig is not generally seen as an indication of carrying capacity (O’Reilly 1999: 56), larger vessels more often carried square rigging. The descriptions, as outlined below, are descriptions of a range of vessels, which due to the diversity of their number of masts and the type of sail upon those masts, can be distinguished from one another. A vessel is considered “square rigged” if any of the

vessel's main sails are square-rigged. This means that a barquentine, for instance, is square rigged although only one of its masts has square sail and rigging (Moore 1970: 39). The list of types of rig presented below is an unashamedly general description of rigging types which is subject to interpretation, augmentation and constant amendment and expansion, as Moore (1970: 80) asserts, "It is not wonderful that nomenclature is inexact," and as Jones (n.d.: xiii) says, "The differences are easily found, but the reasons are more difficult to understand."

- 1) *Barque*: "Barque" generally refers to a vessel of three masts, with a four masted barque being called a "four masted barque" (Moore 1970: 62). The term "barque" is distinguished from the term "barquentine" according to Moore (1970: 26) due to the fact that it is square rigged on two of its masts, rather than only one.
- 2) *Barquentine*: The term "barquentine" is distinguished from the term "barque" according to Moore (1970: 26) due to the fact that it is square rigged on only one of its two masts. Barquentines can also belong to the subcategories of "incomplete barque," also known as a "jackass barque" (Moore 1970: 61). Another quote from Moore (1970: 60) confuses the matter further, "Eighty years or so ago [around 1865] barquentines were called three-masted schooners ... it is not always easy to distinguish between a three masted schooner and a barquentine."
- 3) *Brigantine*: Moore (1970: 25) explains that the terms "brig" and "brigantine" were often interchangeable although historically there was some difference attributed to each type. The term "brig" normally was attributed to a fully square rigged vessel, and a "brigantine" to a vessel that was partially square rigged. While this description appears in the case of the difference between barque and barquentine the term brigantine has only been used here. Moore (1970: 47) further explains that brigantines, as opposed to brigs appear to have gone through a more drastic transformation through time. While both terms are interchangeable, "Brig" became the word for the more evolved version of the rig. Another matter is that Brigantine, as a form of Brig has also been called a Hermaphrodite Brig "which is a brigantine that has lain aside all after square canvas and, is therefore square forward and fore and aft rigged at the main" (Moore 1970: 49).



- 4) *Cutter*: Often confused with “Sloop,” a cutter rig refers to “a one-mast rig with gaff mainsail, stay foresail, job and topsail, running or reefing bowsprit, and long housing topmast” (DeKerchove 1961: 193-194). The term is also used in relation to a clinker-built rowing or sailing boat attached to a vessel, a sailing yacht, and steam vessels in the United States Navy of around 2,000 tons (DeKerchove 1961: 194, Kemp 1988a: 221-222).
- 5) *Dandy*: The term “dandy” has been used by British fishermen to describe any vessel of a ketch or yawl rig (Blackburn 1978: 117). Information from Moore (1970: 187) supports this view that Dandy refers to occupation rather than rig, but instead explains that dandies were traditionally cutter rigged fishing vessels.
- 6) *Ketch*: The term “ketch” has exhibited much variation in description according to its region of use. References to variations in rigging in the state of Maine, USA, illustrate that the description of this type of vessel pertained more to offshore fishing vessels that had two masts, and was rigged square on both rather than fore-and-aft (Paine 2000: 86). In Tasmania, Australia trading ketches were known as “barges.” It is believed that the term carried over from the description of English flat-bottomed trading sail vessels (Parsons 1983d: 2, Kerr 1993: 22). This is supported by a quote from Moore (1970: 25) which states, “Any flat-bottomed coaster, with a square bilge is commonly called a barge, whatever her rig; but since the barges that are most numerous are rigged in a particular way, with a sprit mainsail, that rig is often called a barge rig,” he also ascertains that a barge (or more specifically a Thames Barge or “Hoy”) refers to two essential elements, a flat bottom and sharp chines (Moore 1970: 148). Other variations include the “Nipcat Barge” (Thames barge with a pointed stern), “Topsail Barge” (Thames Barge with a topsail), and “Stumpy Barge” (Thames Barge without a Topsail) (Moore 1970: 149-150). Kerr (1998: 3, 6, 8) discounts that Tasmanian barges were adapted Thames barges and stipulates that in Tasmania the term barge refers to a ketch or cutter rigged vessel, with flat bottom, shallow draft, centreboard or leeboard with a slight rise of floor in the mid sections of four to five degrees, and trading exclusively out of Hobart. On the use of the term “ketch” specifically Moore (1970: 188-189) maintains that the term was applied exclusively to any two-masted trading vessel. The ANAVD, and analysis contained within the accompanying thesis (Richards 2002), however has not used this term at all in relation to rig and has preferred to use the actual rig type (that

is, either “ketch” or “cutter”) when describing the vessel to avoid confusion. This has been another problem in relation to the identification of rigging in the ANAVD, as the term “barge” implies a dumb vessel (which has no rig), as described below.

- 7) *None*: Where a vessel is not rigged. In some cases, a vessel may have an unrigged mast (a derrick). This seen in the combination of a number in the mast field with no rig specified.
- 8) *Schooner*: Paine (2000: 87) describes the regional definition of schooner in Maine, USA, by citing that the name “tern schooner” referred to vessels of schooner rig, but watercraft with three masts instead of two. While there were some references to “Schooner (fore and aft)” in the historical literature, such vessels were classified as “Schooners”.
- 9) *Ship*: Ship, in the context of rig refers to a three-masted vessel with square sails on all of its masts (Dana 1970: 10; Moore 1970: 63). “Ship,” in the post-sail era, and in the present day has been applied to many other things and has become one of the most general terms in relation to watercraft. In particular it has been defined as “a vessel of any description used in navigation and not propelled by oars whether completed or in the course of completion” (Stevens 1947: 81). Stevens also notes that this definition is defined by Section 742 of the British *Merchant Shipping Act 1894* (see Hamilton 1903: 756).
- 10) *Sloop*: Refers to a single masted, fore-and-aft rigged vessel similar to a “cutter” (DeKerchove 1961: 747; Kemp 1988a: 809-810). Also refers to a class of naval vessels used from the seventeenth to the nineteenth centuries, and the smaller classes of anti-submarine vessels used during World War 2.
- 11) *Smack*: Moore (1970: 25) cites that the term “smack” in the late eighteen and early nineteenth centuries meant a small cutter rigged vessel but in the twentieth century refers to a fishing craft irrespective of rig (see DeKerchove 1961: 749, Kemp 1988a: 810).
- 12) *Snow*: DeKerchove (1961: 753) refers to “snow” as rig which, “differed from the brig by having a trysail mast abaft the main lower mast, to which the boom mainsail was hooped” (see also Kemp 1988a: 814).
- 13) *Unknown*: Where the rig (of vessel definitely defined with primary or secondary sailing capacity) is unknown.

- 14) *Yawl*: The term yawl appears to apply mainly to sub-categories of yacht, and are not often used in the description of trading vessels (Moore 1970: 189). Nevertheless they are present within the ANAVD.
- 15) *Lugger*: Lugger is an anomalous term, used after the Seven Years War that refers to the use of lug sails (a combination of square and lateen sail) on two or more of their masts (Moore 1970: 206-211).

*Hull Details:*

This field contains the last known hull type and framework material of a particular vessel before abandonment. Some problems in the classification of hull types were expected, due to the occurrence of vernacular or obscure hull types. For example, the paddle vessels *Gemini* (also known as the “Siamese Twins”) which was constructed at Mannum, South Australia in 1855 of two hulls (one new, the other the lengthened hull of the *Mary Ann*), joined by a common deck, and propelled with a central paddle (see Mudie 1965: 64) was difficult to define quantitatively due to its unique construction. The types of build are listed below:

- 1) *Composite Hull, Iron Framework*: Used for vessels noted as being composite and having iron framing. Although the term composite implies a wooden outer hull, for the purposes of analysis hull material and framework material are separate, but linked entries. This allows for analysis by hull and by framework. Composite vessels were first used in the China trade between 1860 and 1870, but never became common. Many ships were classed as composite, but by proper definition were not. This is because the rules for composite ships were not laid down until 1867. All vessels of both iron and wood construction before this were classed as composite and experimental, and consequently subject to biennial survey requirements (McCarthy 1983b: 361).
- 2) *Composite Hull, Iron and Steel Framework*: Refers to vessels of wooden hull material with both iron and steel material used in their framing. Only one vessel the Murray River barge *Emerald* (1899 – unknown), built at Morgan, South Australia is noted as having this kind of construction in the ANAVD, although it is likely that many more did.
- 3) *Composite Hull, Steel Framework*: Refers to vessels where the historical records suggest a wooden outer hull was supported by a steel framework.

- 4) *Composite Hull, Unknown Framework*: Used for vessels described as composite, but not describing the material of the framework. In this way, an analysis of all composite vessels can still be made, although the material of the vessel's framework may be historically invisible. Some variation in the definition of composite exists. For instance, vessels of wooden construction, but with elements such as cross bracing and knees are still considered wooden vessels. Furthermore, paddle steamers that were iron hulled below the bilges were also considered wooden. The term "composite" then only refers to the ferrous nature of the frames in relation to the wooden hull outer hull. The term composite in the past has also been used to describe vessels built with a combination of traverse and longitudinal framing, although this is not used in this study (DeKerchove 1961: 171-172, Kemp 1988a: 191).
- 5) *Ferro-Concrete Hull and Framework*: A rarity in the ANAVD, ferro-concrete vessels are quite new, first being constructed by Professor Luigi Nervi in Italy in 1943, and based on the concrete ships of World War 1. Although not necessarily having a ferro-concrete framework (the vessel is usually moulded), the term ferro-concrete framework is used to denote that the inner structural members are the same as the outer hull lining. Ferro-concrete hull construction is only reflected in two candidates in the ANAVD, the sailing vessels *Aroonee* (unknown date of build - 1991) and *Solace* (unknown date of build - 1984). This technique involves the used of ferrous mesh which is welded to steel and covered in a liquid cement mix. This is also known as ferrocement, cement-mesh or ferrocete (Kemp 1988a: 299).
- 6) *Iron Hull and Framework*: Refers to vessels of total iron construction.
- 7) *Steel Hull and Framework*: Refers to vessels of total steel construction
- 8) *Unknown, Unknown*: Refers to vessels where there is no mention in historical documents of the hull type.
- 9) *Wood hull and framework*: Is used for vessels of total wooden construction. This includes vessels with iron or steel knees.

*Timber Species:*

This field contains the timber species for wooden vessels. Notations regarding the species of the timber used in a vessel's construction were not common. Nevertheless, this field was added to the database so that timber species identification could be used to correlate vessels in the database with unidentified archaeological remains. A list of timber species adapted from Paasch (1978: 31-32, 1997: 35-36) and supplemented with data from historical sources on particular wrecks is included below:

- |                        |                               |                                |
|------------------------|-------------------------------|--------------------------------|
| 1) <i>Angelly</i>      | 30) <i>Jarrab timber</i>      | 59) <i>Red Gum</i>             |
| 2) <i>Ash</i>          | 31) <i>Juniper</i>            | 60) <i>Rose wood</i>           |
| 3) <i>Banaba</i>       | 32) <i>Karri</i>              | 61) <i>Brazilian Rose wood</i> |
| 4) <i>Batitanan</i>    | 33) <i>Kauri</i>              | 62) <i>Sabicu</i>              |
| 5) <i>Beech</i>        | 34) <i>Larch</i>              | 63) <i>Satin-wood</i>          |
| 6) <i>Betis</i>        | 35) <i>Lignum-vitae</i>       | 64) <i>Spruce</i>              |
| 7) <i>Birch</i>        | 36) <i>Locust</i>             | 65) <i>Stringy Bark</i>        |
| 8) <i>Black Birch</i>  | 37) <i>Mahogany</i>           | 66) <i>Tallow wood</i>         |
| 9) <i>Black Butt</i>   | 38) <i>Mangachapny</i>        | 67) <i>Tamarac</i>             |
| 10) <i>Blue Gum</i>    | 39) <i>Maple</i>              | 68) <i>Teak</i>                |
| 11) <i>Box</i>         | 40) <i>Rock Maple</i>         | 69) <i>Thingam</i>             |
| 12) <i>Cedar</i>       | 41) <i>Molave</i>             | 70) <i>Tropical hardwood</i>   |
| 13) <i>Chestnut</i>    | 42) <i>Morra</i>              | 71) <i>Tulip-wood</i>          |
| 14) <i>Cuba Sabicu</i> | 43) <i>Morong Saul</i>        | 72) <i>Turpentine</i>          |
| 15) <i>Dungon</i>      | 44) <i>Mulberry</i>           | 73) <i>Vanatica</i>            |
| 16) <i>Ebony</i>       | 45) <i>Oak</i>                | 74) <i>Walnut</i>              |
| 17) <i>Elm</i>         | 46) <i>Live-Oak</i>           | 75) <i>Black Walnut</i>        |
| 18) <i>Grey Elm</i>    | 47) <i>White-Oak</i>          | 76) <i>Yacal</i>               |
| 19) <i>Rock Elm</i>    | 48) <i>Olice</i>              | 77) <i>Yew</i>                 |
| 20) <i>Fir</i>         | 49) <i>Palomaria de Playa</i> | 78) <i>Hard-wood</i>           |
| 21) <i>Greenheart</i>  | 50) <i>Pine</i>               | 79) <i>Seasoned Wood</i>       |
| 22) <i>Guijo</i>       | 51) <i>Huon Pine</i>          | 80) <i>Soft-wood</i>           |
| 23) <i>Gum</i>         | 52) <i>Oregon Pine</i>        | 81) <i>Unknown</i>             |
| 24) <i>Hackmatack</i>  | 53) <i>Pitch Pine</i>         | 82) <i>N/A</i>                 |
| 25) <i>Hemlock</i>     | 54) <i>Red Pine</i>           | 83) <i>Jarrab</i>              |
| 26) <i>Hickory</i>     | 55) <i>White Pine</i>         |                                |
| 27) <i>Horn Beam</i>   | 56) <i>Yellow Pine</i>        |                                |
| 28) <i>Iril</i>        | 57) <i>Plane-tree</i>         |                                |
| 29) <i>Iron Bark</i>   | 58) <i>Pubutukawa</i>         |                                |

### Section 3: Dimensions

The data on dimension in the ANAVD is mainly historical data. In some cases archaeological data has been used due to secondary source historical information citing metric dimensions for certain vessels (such as seized refugee and fishing vessels in the Northern Territory).

Length, breadth and depth fields are set up with a required imperial measurement to be inputted. Each measurement is then used in the calculation of metric values. This metric conversion was then used for the comparison of historically defined vessel dimensions with unidentified archaeological remains.

#### *Length (Feet):*

This field contains numeric data on the length (feet and tenths of a foot) of a particular vessel.

#### *Breadth (Feet):*

This field contains numeric data on the breadth (feet and tenths of a foot) of a particular vessel.

#### *Depth (Feet):*

This field contains numeric data on the depth (feet & tenths of a foot) of a particular vessel.

#### *Gross Tonnage:*

This field contains numeric data on the gross tonnage of a particular vessel. Gross tonnage (often abbreviated as g.r.t) is defined as a vessel's permanently enclosed internal space below the tonnage deck (the upper deck of ships with less than three decks, and the second deck from below in other kinds of vessel) with the addition of all enclosed spaces above the tonnage deck, but excluding the space dedicated to a double bottom, measured in increments of one hundred cubic feet (Stevens 1947: 47; Pursey 1952: 5; 1959: 199; Lloyd's of London 1959: 256; 1973: 426; 1981: 496; 1991: 377; Stokoe 1968: 116, 121; Palmer 1971: 67; Baty 1984: 11).

#### *Net Tonnage:*

This field contains numeric data on the net tonnage of a particular vessel. Net Register Tonnage (often abbreviated as n.r.t.) is a calculated tonnage measurement taken as one hundred cubic feet per ton of any space that is enclosed in a vessel minus any space dedicated to the engines, propulsion, navigation, and crew living spaces (which are subtracted from a vessel's gross tonnage) (Stevens 1947: 65; Pursey 1952: 5; 1959: 199-200; Lloyd's of London 1959: 256; 1973: 427; 1981: 500; 1991: 380; Stokoe 1968: 116, 121; Palmer 1971: 67).

Stevens (1947: 47) has suggested that although there is no scientific way to determine the relationship between gross and net tonnage, there is a general rule that the approximate proportions of gross to net tonnage is about 3:2.

#### *Other Tonnage Measurements*

There are many other tonnage terms and measurements used. Lightweight tonnage refers to the tonnage of the ship itself, machinery such as the engines, boiler, and boiler water. Displacement tonnage refers to the weight of the water displaced by a particular waterborne hull when loaded to its load draught (line of maximum allowed immersion). Deadweight tonnage refers to the number of tons a vessel can have loaded before she reaches her load draught (Pursey 1952: 5, Lloyd's of London 1959: 256; 1973: 425; 1981: 493; 1991: 373, 374, Eyres 1980: 4). Under deck tonnage refers to the volume (cubic capacity) of space enclosed below the tonnage deck (Lloyd's of London 1981: 507; 1991: 385). Modified tonnage refers to vessels designed to "run in service at a load draught which is much less than that allowed by the Load Line Rules," and upon classification becomes known as Alternative tonnage (Stokoe 1968: 121-122). It should also be noted that while tonnage is a useful measurement, the institution of load lines, which vary according to a range of variables, such as water salinity and season, of which there is now an international convention (1966) on came to be the more accurate and widely used standards in the proper loading of materials on vessels (Cockcroft 1983: 333, 337-343). Eyres (1980: 308-311) also refers to "British tonnage."

McCarthy (1996: 137 footnote 1) has also noted that while "tonnage" is often cited in historical records, which one of the specific types of tonnage that this represents is not often specified.

## Section 4: Design

### *Decks:*

This field contains the number of decks recorded on a particular vessel and besides having historical interest was recorded for possible identification aspects.

### *Stern:*

This field contains the type of stern (aft or back section) configuration of a particular vessel. Once again, this was seen as an aid in the identification of remains suspected as abandoned and a source for the marrying of historical details to archaeological remains. The list of stern types is listed below and is adapted from descriptions of stern types seen in Australian Customs House Records and supplemented with information from other sources.

- 1) *Counter*: Refers to a stern where the portion between the knuckle and the waterline overhangs the rudder. Also known as a fantail stern type (DeKerchove 1961: 180; Kemp 1988a: 208)
- 2) *Cruiser*: Refers to a stern type where the underwater surface close to the stern is broad and nearly flat, leading to a conical surface which inclines forwards towards the vessel's bow. The cruiser stern gives certain advantages in buoyancy, stability, deck room, propeller efficiency, and better protection to propellers when berthed. A variation of the cruiser stern is known as the spoon stern or canoe stern (DeKerchove 1961: 188, 767). Pursey (1959: 118) considers the cruiser stern a "continuation of the main part of the hull" and adds that they are defined by their extension "below the load water line, but above the light water line" (supported by Stokoe 1968: 85). Cruiser stern type is found mainly on ocean-going vessels (Eyres 1980: 224).
- 3) *Elliptic*: Described as almost an opposite to the cruiser stern with a conical shape emerging from the knuckle of the stern upwards and outwards, away from the bow. Some sources cite elliptic sterns as the same as the round stern type (see DeKerchove 1961: 258), although Paasch (1978: 97) includes separate entries for both. Pursey (1959: 116) also relates the term "elliptical stern" to the term "ordinary stern." Vessels in the ANAVD have been found described as both round and elliptic. Elliptic and round sterns have been noted as the preference



- of build in sailing vessels because they avoid the snagging of aft sheets and therefore, avoids tearing and damage occurring to sails (O'Reilly 1999: 53). Rounded stern vessels were also better on deep-sea routes, and are more often found on schooner-rigged vessels (O'Reilly 1999: 134-135).
- 4) *Half-round*: A stern configuration not reflected in descriptive treatises on ship design and construction. One candidate described in its Australian Custom House Register (Sydney: 81/1886), that of the iron paddle steamer *Barwon* (1886 – 1938) built at Moama, New South Wales, Australia has been recorded.
  - 5) *Oval*: A stern configuration only noted in reference to Australian Customs House Registers (Fremantle: 7/1874 and 12/1874) of the wooden cutter *Scud* (1874 – 1878) built at Fremantle, Western Australia, Australia and the wooden cutter *Dania* (1874 – 1886) built at Vasse, Western Australia, Australia. This description appears to be a discrepancy attributable to a variation in recording ship construction details in Western Australia.
  - 6) *Round*: see Elliptic.
  - 7) *Round-Counter*: Apparently a hybrid of both the round and counter stern types. This type is only seen in the Australian Customs House Register (Adelaide: 9/1913 and Melbourne: 3/1921) of the iron barque *Moe* (1876 – 1931) built at Liverpool, England, United Kingdom.
  - 8) *Semi-elliptic*: This type of stern is only described in the Australian Customs House Register (Newcastle: 12/1874) of the wooden brigantine *Transport* (1865 – 1888) built at Pt. George, Annapolis, Nova Scotia, Canada.
  - 9) *Sharp*: Refers to a “pointer” stern of triangular cross-section. The sharp stern has certain advantages in its cheapness to build, best longitudinal balance at sea and greater comfort in bad weather, although it does not provide good buoyancy, deck space, or room below deck. Also called a lifeboat stern or whaleboat stern (DeKerchove 1961: 714)
  - 10) *Square*: Is used to describe a stern where all sides of the stern’s counter runs perpendicular to the longitudinal axis of the vessel. Also known as a flat stern or square transom stern (DeKerchove 1961: 291, 771, and see Paasch 1978: 59). O'Reilly (1999: 53) has written that this type of stern was sometime built because of advantages that it provided in relation to buoyancy. It is also noted that in wooden sailing vessels, square sterns were sometimes a problem because aft sheets could sometimes snag.

- 11) *Straight*: This type of stern is only noted in reference to the composite paddlesteamer *Arcadia* (1903 – date unknown) built at Goolwa, South Australia, Australia. Although possibly an error in the description of the vessel (it is also noted as having a straight stem), it is equally possible that as the vessel is a paddle steamer, that both ends were straight.
- 12) *Unknown*: Applies to vessels where the configuration of the vessel is not known, or has not been recorded.
- 13) *Budget*: Kerr (1998: 8) uses the term in relation to vessels designed like Thames barges in Tasmania. No reference to this term was found during research into the ANAVD.
- 14) *Tuck*: Kerr (1998: 8) uses the term in relation to vessels designed like Thames barges in Tasmania. No reference to this term was found during research into the ANAVD.

*Build*:

This field contains the build type of a particular vessel, where “build” generally can be defined as the method of planking in wooden vessels or the shift of butts in ferrous-hulled vessels. The type of build in the configuration of plates and planks is a major distinction where vessel design is concerned, and affects the efficiency and longitudinal strength of a vessel (Stokoe 1968: 49-50).

- 1) *Carvel*: A system of hull build where plates or planks are flush-laid where the landing edges touch each other and do not overlap so as to create a smooth finish to the outer hull. The space between strakes is then usually caulked (often with oakum or cotton) to make it watertight. An advantage of this method is in the cleaning of the hull of marine organisms, which can more easily be scraped off due to the smoothness of the hull (see Hornell 1948: 238; DeKerchove 1961: 129-130; Palmer 1971: 6; Paasch 1978: 48; Kemp 1988a: 143; Kerr 1993: 146). O’Reilly (1999: 53) has also noted that carvel built wooden sailing vessels were easier to repair, and were stronger. In the case of welded ferrous hulls, it is often referred to as “flush welded” (Stokoe 1968: 51).
- 2) *Clincher*: Also known as clinch planking, clench planking, lap planking, clinker construction and lapstrake construction. A clincher built vessel is one where each plank or plate (besides the lowest, or garboard strake) overlaps the highest

edge of the strake below it. Traditionally, clincher construction is seen to predominate in traditions of small boat building. This can be attributed to the increased friction brought about by the greater wetted area, which creates resistance to the opening of seams along planks in summer (see Hornell 1948: 238; DeKerchove 1961: 152-153; Palmer 1971: 6; Paasch 1978:51; Kemp 1988a: 172; Kerr 1993: 146). Additionally O'Reilly (1999: 19) notes that clincher construction was employed to support the wide breadth of a vessel. This technique is cited as not used often in ferrous-shelled vessels (Stokoe 1968: 50). Marsden, in his analysis of ancient vessel remains in the United Kingdom, has noted that there are examples of “reverse clinker” construction in which the sequence of overlapping strakes is reversed (lower strakes overlap the upper) citing archaeological evidence from a late sixteenth century vessel from Morgan’s Lane (Marsden 1996: 18, 31). While this is significant because it may indicate that a vessel is built “upside-down” (from gunwale to keel) it has not been included in the ANAVD because it has not been found in any archaeological investigation or historical research carried out.

- 3) *Clincher (in and out)*: A rare form of build, often used on riveted ferrous-hulled ships (Stokoe 1968: 50). This type is not often listed on historical records, and is only discernible from the archaeological remains of fairly intact vessels. This form of clincher build entails the overlapping of planks or plates in an alternate fashion with one plate being located inside of both the plates on each of its sides, rather than overlapping on one side and being overlapped on the other. This type of build for instance is noticed on the remains of the steel barque *Garthneill* (1895 – 1935) built at Glasgow, Scotland, United Kingdom.
- 4) *Clincher and Carvel*: A rare form of build, but one listed in the Australian Customs House Registers is a combination of the two main forms of build type. In the database it is only represented by two vessels – the wooden sailing ketch *Wild Duck* (1851 – 1888) built at Brisbane Water, New South Wales, Australia, and the *Red Wing* (1850 – 1892) built at D'Entrecateaux Channel, Tasmania, Australia. Where each type of building technique has been actually used (i.e. in the upper or lower portions of the hull) is unknown from the historical record. While this technique stretches back as far as the “Bremen Cog” and Henry V’s *Grace Dieu* (1418 – 1434) it is also recorded as having been used in fishing vessels from

Spencer Gulf, South Australia in the early to mid twentieth century (Johnstone 1974: 130, Kerr 1993: 146).

- 5) *Unknown*: Where the form of build is not listed, or is not discernible.

*Gallery:*

Kemp (1988a: 335) describes a gallery as a “walk built out from the admiral’s or captain’s cabin in the larger sailing warships” similar to a sternwalk, while DeKerchove (1961: 322) describes galleries as obsolete structures constructed like “[b]alconies over the stern of ships with access from the stern windows.” This field contains data that relates to gallery descriptions noted in Australian Customs House Registers:

- 1) *Bridge*
- 2) *False*
- 3) *None*
- 4) *Sham/Mock*
- 5) *Quarter*

No reference to these descriptions were found during research, and are currently unidentified. For this reason this list cannot be expected to be comprehensive. Indeed, it is expected that the terms “Sham/Mock” and “False” belong to the same category.

*Head:*

This field contains the head type at the bow of a particular vessel (for an expanded history see de L. Marshall 1994). A list and description of head types is included below:

- 1) *Bluff Bowed*: Kerr (1998: 8) noted this term in relation to Tasmanian vessels designed along British lines. The term does not seem to be used often and seems to be a general description of the bow’s shape.
- 2) *Billet*: Refers to a vessel with no figurehead, and where the end of the head forms a fiddle-shaped scroll, which turns inward and aft. Sometimes referred to as billethead fiddle-figure head or fiddlehead, and often-used in reference to the termination of a clipper bow (see below) (DeKerchove 1961: 64; Kemp 1988a: 300 and see Paasch 1978: 18).

- 3) *Clipper Bow*: Refers to where the bow of a vessel makes a concave slant out of the water, as in the sharp rake of a clipper ship, which often terminates in a billethead. Also called a clipper stem, fiddle bow, cutwater bow, knee bow and overhanging bow (DeKerchove 1968: 153; Paasch 1978: 437; Kemp 1988a: 172).
- 4) *Common*: While no description to this type of stem-head has been seen in an archaeological context it has been found to describe the configuration of the wooden schooner *Crinoline* (1863 – unknown).
- 5) *Convex Elliptical*: Despite this term being used to describe the steel hulled single screw motor vessels *H.A. Lumb* (1943 – 1994) and *Karoola* (1947 – 1974), no description has currently been located.
- 6) *Curved Stem*: This term was used to describe the steel hulled screw steamer *Kos 2* (1929 – 1974) and the wooden sailing vessel *Violet* (1881 – unknown). No definition has been found so far.
- 7) *Cutter*: Used to describe the Thai-built vessel *Kate* (1871 – 1906), this term apparently has no official definition.
- 8) *Cutwater*: The term “cutwater” refers to “A term used in modern parlance to denote the forward edge of the stem, at or near the waterline. Also called the false stem. In wooden ships it referred to a timber of the knees of the head fayed to the stem above the gripe” (DeKerchove 1961: 194). This term has only been found in one example, the wooden ketch *Fleetwing* (1867 – 1915).
- 9) *Double Ended*: A “double-ender,” or “double bowed” vessel refers to a boat with a sharp stem and similar lines either end, or a vessel where both ends are the same so as to facilitate motion in both directions (DeKerchove 1961: 234-235). Because of this, the term may refer to a range of configurations described above where both ends are the same, usually where the stem and stern of the vessel are straight (Graeme-Evans and Wilson 1996: 14).
- 10) *Fiddle*: Referred to as a “substitute for the traditional figurehead in the form of a scroll. It is generally called a fiddle head when the scroll turns outward (evolute) and billet head when it turns inward (involute)” (DeKerchove 1961: 279).
- 11) *Figure Head*: Refers to the ornamental carved, and often-painted figure traditionally placed adjacent to the head of a vessel, usually underneath the bowsprit (DeKerchove 1961: 279-280; Paasch 1978: 18, Plate 9; Kemp 1988a: 302-304). A figurehead is probably the most obvious denotation of the symbolic meaning imbued in watercraft, with the figurehead most usually associated with

- the name of a vessel or associated with some desired function or ability. The advent of steam and the changes in vessel design that accompanied it meant the end of the figurehead. Common figureheads include gendered busts (full or three-quarter length) and animal busts.
- 12) *Flare Bows*: Flare bows refer to where the sides of a vessel towards the front and in the upper strakes flare out giving the vessel increased breadth, allowing the water to be thrown away from the ship rather than coming over the bow. Also known as “flare out bows” (DeKerchove 1961: 290; Kemp 1988a: 314).
  - 13) *Medallion*: A type of figure head, generally a “small, medal – like representation on the vessel’s bow of a person or design” (de L. Marshall 1994: 6, Matthews 1998: 112).
  - 14) *None*: According to some Australian Customs House registers there were certain vessels with no head. This does not, of course mean that the vessel lacked a stem, but rather that the vessel did not carry figure head, or any ornate work and did not have a racking, clipper type stem configuration. It is not sure whether this means that such vessels were swim-headed, or simply lacked an ornate aspect to its bow.
  - 15) *Overhanging Bows*: An unknown description used to classify a number of diverse types of vessel included in the ANAVD.
  - 16) *Plain*: An unknown designation for a number of sail and steam vessels in the ANAVD. May refer to vessels with undecorated, straight or swim-heads.
  - 17) *Punt*: A title used for the steel twin screw motor vessel *Norwhale* (1943 – 1968), but not described in any found source.
  - 18) *Raked/Raking Stem*: Defined as, “A straight stem having a forward rake or extending beyond the forward perpendicular” (DeKerchove 1961: 633). This type of stem is noted for reducing damage underwater if there is a collision, while also providing additional streamlining to the vessel, increasing buoyancy, and seaworthiness.
  - 19) *Schooner Bow*: Moore (1970: 252) describes “schooner bow” as, “an overhanging bow with a curved raking stem, concave forwards, such as is usual in schooner yachts.”
  - 20) *Scow Bow*: No description to this type of bow was found during research. However, this type of bow was mentioned in relation to two wooden screw

- steamers constructed in New South Wales, *Pelican* (1890 – 1915) and *Tabbo* (1908 – 1930).
- 21) *Scroll*: Often described as the opposite of a billethead, a scroll (or scroll head) is an ornately curved piece of timber attached to the head in the place of a figurehead. It is distinguished from a billethead by the outward turn of the scrollwork (DeKerchove 1961: 692).
- 22) *Scroll and Shield*: As definition of “Scroll” with the addition of an ornate shield. A common designation (de L. Marshall 1994: 8).
- 23) *Sharp bow*: The only reference to a vessel having a sharp bow is in the case of the wooden paddle steamer *Britannia* (1902 – 1961) built at Moama, New South Wales, Australia. The term “sharp bow” has not been found in any other historic literature pertaining to ship design.
- 24) *Shield*: An ornate figure that resembles a shield.
- 25) *Spoon/Shovel Bow* – While not reflected in the ANAVD a spoon or shovel bow refers to “A bow, with full round sections, the shape which bears a general resemblance to the bowl of a spoon. It is mostly found on yachts, and on stern-wheel steamers designed for shallow river travel” (see DeKerchove 1961: 767).
- 26) *Square*: A head configuration used to describe the wooden side wheel paddle steamer *Barangaroo* (1889 – 1932) but not defined in historical documentation.
- 27) *Square Scon*: Designation used to describe the wooden stern wheel paddle steamer *Waterlily* (1880 – 1908), but not found in historical documentation.
- 28) *Stem*: A reference to the wooden upright post in a vessel. In reference to head configuration, true meaning could not be located, but was a common designation. The term may instead refer to “straight stem” (see below).
- 29) *Straight Stem*: Refers to a stem that is wedge shaped and raked in a straight line or is perfectly perpendicular to the waterline. Also called a “straight bow” (DeKerchove 1961: 796).
- 30) *Swim*: A swim-headed vessel refers to a vessel with no stem, similar to the front of a punt where the front of the vessel whether purely vertical or raking towards the stern is totally flat and quite broad (see Moore 1970: 148; Kerr 1998: 8). Effectively, all of the other categories with the exception of “none” can be termed “stem-headed.”
- 31) *Unknown*: Used in conjunction with vessels of no registration documentation, or where the documentation neglects to note the configuration of the head.

*Bulkheads:*

This field contains numeric data on the number of bulkheads of a particular vessel. Bulkheads are best described as internal vertical structural elements that extend either longitudinally or athwartships, effectively compartmentalising the vessel for the purposes of strength and safety. Major bulkheads extend the length or breadth of the vessel but are made watertight by extending from floors to weather deck, sometimes with access doors. A collision bulkhead is often placed in the fore part of a vessel in order to seal a vessel in the case of a collision (DeKerchove 1961: 103, Paasch 1978: 44, Kemp 1988a: 117). As the vessels in this study are often greatly salvaged, the number of bulkheads is a major diagnostic element used in the marrying of surveyed archaeological remains and historical sources.

*Water Ballast Tanks:*

This field contains numeric data on the number of water ballast tanks of a particular vessel. The evidence of ballast tanks upon a vessel can be seen as a diagnostic tool for the identification of watercraft remains. The use of water as ballast means that ballast tanks that can be filled and emptied according to load requirements. This dates from 1884 when the French introduced water ballast tanks (Weski 1998: 22). Before this solid ballast of a range of types was carried in order to weigh and balance the vessel by way of adjusting its trim and making it ready for a voyage (DeKerchove 1961: 36-37, Paasch 1978: 415, Kemp 1988a: 55-56).

**Section 5: Function**

*Function:*

The intended purpose of vessels indicates to some degree the commencement and health of particular economic niches and trades. For the purposes of this study, a list of functional purposes was adapted from Coroneos and McKinnon (Coroneos 1997: 31, Coroneos and McKinnon 1997: 21). This system allows for analysis of the data by thematic category, larger purpose, or specific type.

Defining vessels for the purposes of quantitative analysis is dangerous, because while a vessel may predominantly fulfil on function, it may have also fulfilled a range of ancilliary



functions that are not likely to be reflected in the available histories of that vessel. Nevertheless, there are a few general categorisations that can be used in looking at function. Stokoe (1968: 1), for instance defines passenger ships as “one which may accommodate more than twelve passengers.”

*Working Environment:*

The environment in which the vessel was intended to be operated in is of great relevance as it dictates the suitability of a design of vessel to a particular place (ie/- at sea or on inland waterways).

**Section 6: Modification**

*Date of Modification:*

This field contains the year of a previous modification of a vessel. A modification will occur to a vessel if that modification makes it more suitable to a trade, and if the owner sees that vessel making more money in that new function. Modification, often seen in the lengthening, deepening, or broadening of the vessel, and sometimes in a reduction to dimension is of a major expense and is therefore, an important indicator of economic status and climate.

*Propulsion:*

This field contains the previous propulsive means of a particular vessel. This field is linked to a table containing the same data as is seen in the propulsion field. Additionally, the term N/A (not applicable) is used to describe vessels that have not been modified.

*Masts:*

This field contains the previous number of masts of a particular vessel. If the number is 0 and not referenced it refers to a vessel that was not modified. If 0 and referenced, then the vessel previously did not have a mast.

*Hull Type:*

This field contains the previous hull type of a particular vessel. This field is linked to a table containing the same data as is seen in the hull type field. Additionally the term N/A (not applicable) is used to describe vessels that have not been modified.

*Gross Tonnage:*

This field contains numeric data on the previous gross tonnage of a particular vessel. If the number is 0 and not referenced it means that it was not modified. If 0 and referenced, then the vessel previously did not have a mast.

*Net Tonnage:*

This field contains numeric data on the previous net tonnage of a particular vessel. If the number is 0 and not referenced it means that it was not modified. If 0 and referenced, then the vessel previously did not have a mast.

*Length:*

This field contains numeric data on the previous length dimension of a particular vessel. If the number is 0 and not referenced it means that it was not modified. If 0 and referenced, then the vessel previously did not have a mast.

*Breadth:*

This field contains numeric data on the previous breadth dimension of a particular vessel. If the number is 0 and not referenced it means that it was not modified. If 0 and referenced, then the vessel previously did not have a mast.

*Depth:*

This field contains numeric data on the previous depth dimension of a particular vessel. If the number is 0 and not referenced it means that it was not modified. If 0 and referenced, then the vessel previously did not have a mast.

## **Section 7: Secondary Use**

The term “hulk” for the purposes of this thesis refers generally to any vessel traditionally known as a “dumb vessel.” The definition of a “dumb vessel” is any vessel that has never had propulsion, or was converted so that it has no means of propulsion (Blackburn 1978: 132, 205). However, within a descriptive list of “hulk types,” the term has its own specific meaning (see below).

*Was Vessel Hulked?:*

This field contains data on whether a vessel was hulked or not.

*Hulk Type(s): (2 fields)*

These fields contain data on the types of hulk or the specialised purposes as hulks that a particular vessel fulfilled. It is linked to a table containing the following fields (interim data): There are five major classification descriptions where this field is concerned:

- 1) *Barge*: Barge is a term of many diverse descriptions. Originally, it is believed to denote the rig of a ship similar to that of the “Barque”. It has also been known to be used in relation to ceremonial vessels (such as “state barge”), the second vessel of a British warship and a range of regional vessel types such as the British Thames Barge, Hay Barge, Topsail Barge and the Dutch Barge (Blackburn 1978: 31-34, Kemp 1988a: 59-60). A further complication, as already mentioned arises in that the classification for the rig “ketch” in Tasmanian registration systems was traditionally “barge.” For the purposes of this study, a barge is considered a “dumb vessel” and seen characteristically as a square planned, single decked, and often hard-chined vessel used in the transportation of goods or materials around port. In such a function barges are most commonly identified as the vessels towed behind river steamers on the Murray-Darling River system (Parsons 1983d: 5). For the purpose of marine insurance, a “dumb barge” is listed as referring to any barge without any means of motive power (Stevens 1947: 36, Lloyd’s of London 1981: 494; 1991: 374, Parsons 1983d: 5). There is one case of a vessel, the iron motor vessel *Pelican* (1880 – 1971) being described as a “motor driven barge” in the ANAVD, which does not fit any normal system of classification. In the case of all vessels listed as a barge and being obviously unrigged, the term “dumb barge” or “general barge” has been used in the ANAVD.
- 2) *Hulk*: The term hulk has traditionally meant many things. Originally, it was used to denote a large cargo ship similar to a carrack. Later, it was used to describe a large awkward vessel with a round stern and in the eighteenth century, and used as a general means of describing the hull of any ship (Blackburn 1978: 174; Kemp 1988a: 406). For the purposes of this study, a hulk is a vessel, no longer insured for or engaged in an active trade, but instead fulfilling a secondary, support

function. This function sees it as a stationary vessel, either afloat or beached and used in either the storage or transportation around port of goods. Another term traditionally used in the place of “hulk” is that of “receiving ship” where a vessel became a barrack in a navy port (Blackburn 1978: 281).

- 3) *Lighter*: A lighter is generally considered a vessel with no means of propulsion that is used to carry cargo from ship to shore and vice versa (Blackburn 1978: 205; Kemp 1988a: 482). For the purposes of this study, a lighter is a vessel no longer insured for or engaged in an active trade, but instead fulfilling a secondary, support function. This function sees it as a floating vessel used similar to a barge where it is towed behind another vessel. A lighter can be distinguished from a barge because its hull shape is often more suited to offshore activity and it may have multiple decks, as well as deck space that can be used. There are some exceptions to this rule. For instance, vessels described as “hoppers” which are towed and used in the transportation and dispersal of dredged silt (Blackburn 1978: 170) have not been categorised as lighters, but fully functional (primary support) vessels. Other complications within the database arise through the listing of vessels such as the wooden steamer *Nirimba* (1895 – 1945) and the wooden screw steamer *Myall River* (1912 - date unknown) as “steam lighters,” and the steel screw steamer *Centipede* (1913 – 1990), the iron paddle steamer *Samson* (1865 – 1915) and the iron screw steamer *Alexandra* (1863-1906) as “motor driven lighters.”
- 4) *Pontoon*: A pontoon is a vessel with only one deck and no hold, often used as a platform of some sort or within the same general function as a barge. There are many adapted functions of a pontoon, although every variation is somewhat similar, and usually entails a flat bottomed, platform like vessel used in a support function (see Blackburn 1978: 263; Kemp 1988a: 659).
- 5) *Specialised*: A vessel, not fitting into any of the above categories, but seen as fulfilling a unique secondary role such as use as a bridge, or bathhouse.

*Was the vessel a customised hulk?:*

This field concerns whether a vessel was built for a purpose akin to that which vessels are hulked for.

*Date Hulked:*

This is the date in which a particular vessel was “hulked” or converted for secondary support function. In the case of a vessel built for hulk like purposes, the hulking date equals the build date.

*Hulk Tonnage:*

This field contains numeric data on the recorded tonnage of the vessel as hulk. This indicates whether there was substantial amendment made to the hull that caused a reclassification of its tonnage according to an increase or decrease in overall capacity.

**Section 8: Time and Location**

*Graveyard Name:*

This field contains the name of an accumulation of abandoned vessels that a particular vessel may be a part of (i.e. a ships’ graveyard name). This field is linked to a table containing the ships’ graveyards in Australian waters defined before, or during this study.

*Location:*

This field contains the geographical naming details of the location of a particular vessel. It is linked to a table that contains the place of abandonment, and Australian state of abandonment, giving the abandonment location and/or the location of a particular ships’ graveyard.

*Environment:*

This field contains whether a vessel was abandoned in a riverine or marine environment. In this way, an analysis of the cross-section of the types of vessels operating in a given region can be established.

*Port of Departure:*

This field is linked to a table that has within it the major port from which the vessel travelled from in order to be abandoned.

*Year Abandoned:*

This field contains numeric data of the year that a particular vessel was abandoned.

*Date Min./Date Max.:*

This field contains two sets of dates outlining the period within which a particular vessel was abandoned. This is required because although the year of abandonment is often known, unlike most shipwrecks, the specific time, date and month may not be known.

**Section 9: Abandonment Method**

*Salvaged:*

This field contains data concerning whether a particular vessel is recorded as being salvaged at some stage for scrap and fittings.

*Dates of Salvage:*

This field contains data concerning the dates when material was salvaged off a particular vessel.

*Reason for Discard:*

In order to assess the pressures that lead to the abandonment of a particular vessel, a tentative reason list has been created. There are five “themes” within this list.

- 1) *Technological:* The innovation and wholesale adoption of new technologies on a range of levels has demonstrable effects on vessels representing old methods. This normally makes a vessel obsolete.
- 2) *Condition:* The effect of age and wear and tear may culminate in the decision to abandon a vessel
- 3) *Economic:* Historic events such as the Great Depression or the failure and economic downturn of particular trades and industries disappearing
- 4) *Unknown:* Where there is no historically mentioned reason.
- 5) *Crime:* The abandonment of vessels as a criminal act, either from a mutinous crew, or as an attempt at marine insurance fraud.

*Use (post-discard):*

The abandonment of a vessel for a particular purpose appears to be common behaviour and is shared between many candidates. There are a number of themes pertaining to this:

- 1) *Structural*: In many cases vessels have been sunk for use as underwater, intertidal or dry structures such as artificial reefs (underwater), breakwaters (underwater and intertidal), piers, and mooring markers. Often vessels have also been used as a means of beginning, speeding up, or increasing reclamation efforts in order to fill in waterways that are to be used for other purposes.
- 2) *Storage*: A variation of the structural theme, often vessels have been abandoned to be used as storehouses in order to allow easy storage and transportation of goods of a particular type (such as explosives) to and from water borne transport.
- 3) *Other*: In certain isolated cases, vessels have been abandoned for special reasons, such as movie props and dive training facilities.
- 4) *Unknown*: Used for vessels of unknown post-abandoned use.
- 5) *Military*: Often vessels have been chosen for the explicit purpose of providing the military with a target upon which to test its crews or weapons.
- 6) *Salvage Only*: In a large number of cases vessels have been beached in order to obtain raw materials from them.

*Means Abandoned:*

The place of abandonment can be communicated in many ways. As well as spatial coordinates, another important factor is where the vessel was placed in relation to tidal height. In many cases, this is done according to the intended purpose of the vessel after its abandonment, such as in the case of requiring access to the hull to salvage materials, or it is done in relation to the costs associated with the transportation of a vessel to deep enough water in order to sink it. There are only really two forms of abandonment from the perspective of disposal; where the vessel has been run aground before being modified in order to make it unable to displace water and float, and the opening of a vessel at sea in order to sink. The later method describes here is generally known as “scuttling a vessel” which is defined as “To let water into a ship for the purpose of sinking” (Stevens 1947: 78), although it seems to be popularly understood as using explosives on a vessel at sea in order to purposefully sink it in deep water. The choices in this field are as follows:

- 1) *Shallow Water*: Where the vessel was abandoned in an intertidal area where it is only exposed for a portion of any given day, or can only be seen from the surface in a given season. The remains of this vessel may pose a navigation hazard.

- 2) *Deep Water*: Where the vessel is submerged one hundred percent of the time and is in no way a threat to navigation. It can only be impacted upon by forces acting upon it from under the water.
- 3) *Beached*: Where the vessel was placed so that it was highly accessible and any substantial portion would have been visible all of the time.
- 4) *Demolished*: Where the vessel was so impacted upon by salvage and hull minimisation that no visible archaeological remains are believed to still exist
- 5) *Unknown*: Where there is no historical documentation pertaining to where the vessel was placed.

One problematic aspect of this categorisation is that over time changes to surrounding land, waterway depth, or sea level will have affected the status of the vessel in relation to the tides, especially where vessels once in shallow water are now dry and where beached vessels become inundated.

*Signatures:*

This field refers to a number of placement assurance and abandonment processes.

- 1) *Opened*: Where there is an historical reference to the vessel having its sea cocks opened in order to facilitate sinking.
- 2) *Gunfire*: Where the vessel has been used in a military training exercise that meant gunfire (large calibre) was used as a primary source of it being sunk.
- 3) *Bombed*: Where the vessel has been used in a military training exercise where airborne bombing practice facilitated sinking.
- 4) *Filled*: Where there is historical or archaeological evidence that the vessel was filled with material in order to assure that it sank or was beached permanently
- 5) *Burnt*: Where there is historical or archaeological evidence that a vessel was burnt in order to assure its abandonment.

## **Section 10: Registration & Ownership**

There are two fields specifically related to customs house registers in the ANAVD.



*End Customs Register:* This is the last date of registration in any customs house register for a particular vessel. If a vessel should happen to transfer to another registry notification is usually given of that transferral.

*Registration History:* Contains the full history of registration in particular customs house registers including name of port, number in year of registration (i.e. 13/1872 means it was the 13<sup>th</sup> vessel registered at a particular port in 1872) and the registered name of the vessel. Through the inclusion of the official number of a vessel on most records, it is then easy to track changes in registered name through the years and across ports of registry.

*Ownership:*

Mainly for historical interest and for problematic identification of similarly named candidates, the ownership section of the ANAVD lists all known owners of a particular vessel. This may shed some light on the pattern of purchase for large and small companies engaged in trade in Australia and may show the decline or rise of particular companies according to their purchases in particular vessels and particular technologies.

## **Section 11 Notes**

*Historical Notes:*

This field contains extended discussion and historical miscellany concerning a particular vessel and relates each point to the source reference list.

## **Section 12: References**

*Source Reference List:*

This field contains a list of sources for primary, secondary, and tertiary sources written on or referring to a particular vessel. It refers to a central reference list, contained in the references of this thesis (see Appendix 1 and Reference List)

*Photographic Reference List:*

This field contains a list of sources for historical and site photographs of a particular vessel.

### Reference List

- Abbass, D. K. 2001. Newport and Captain Cook's Ships. *The Great Circle* 23(1): 3-20.
- Adamson, M. 1996. *Unidentified Steam Tug East of the Sunbeam*. Unpublished Wreck Inspection Report: Flinders University, South Australia.
- Adelaide Chronicle*. 1933. Mortlock Library of South Australiana, Adelaide, South Australia.
- Advertiser*. 1930 – 1932. Mortlock Library of South Australiana, Adelaide, South Australia.
- Akerlund, H. 1951. *Fartygsfynden in Den Fornä Hamnen I Kalmar*. Almqvist & Wiksells Bokt: Stockholm, Sweden.
- Aldcroft, D. H. 1963. The Eclipse of British Coastal Shipping, 1913-21. *The Journal of Transport History* 5(1): 24-38.
- . 1965. The Depression in British Shipping. *The Journal of Transport History* 7(1): 14-24.
- Aldsworth, F. G. 1989. Excavations at the Former Royal Naval Dockyard, Bermuda: A Nineteenth Century Slave Hulk. *Bermuda Journal of Archaeology and Maritime History* 1: 109-30.
- Amer, C. 1997. Brown's Bay Vessel. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 75-76.
- American Bureau of Shipping. 1950. *Rules for the Classification and Construction of Steel Vessels: 1950*. R.R. Donnelley and Sons Company at the Lakeside Press: Chicago, United States.
- Andrews, G. K. 1987. Hulks. *Australian Sea Heritage* 13(Autumn): 2-3.
- . 1994. The Hulks of Homebush Bay. *Australian Sea Heritage* 38(Autumn): 17-18.
- ANMA (Australian National Maritime Association). 1989. *Australian Shipping: Structure, History and Future*. Australian National Maritime Association: Australia.
- Anuskiewicz, R. J. 1998. Technology, Theory and Analysis: Using Remote Sensing As a Tool for Middle-Range Theory Building in Maritime and Nautical Archaeology. in *Maritime Archaeology: A Reader of Substantive and Theoretical Contributions*, (eds.) Lawrence Babits and Hans Van Tilburg. Plenum Press: New York, United States, pp. 223-31.
- Appleton, A. 1993. Tell Tales: Classic Boat Register of Endangered Boats. *Classic Boat* July: 8.
- Arenhold, L. 1916. The Nydam Boat at Kiel. *The Mariner's Mirror* 4(6): 182-85.
- Argus*. 1933. Mortlock Library of South Australiana, Adelaide, South Australia.

- Armstrong, J. 1998. The Crewing of British Coastal Colliers, 1870-1914. *The Great Circle* 20(2): 73-89.
- Arnold III, J. B., Goloboy, J. L., Hall, A. W., Hall, R. A., and Shively, J. D. 1998. *Texas Liberty Ships: From World War II Working-Class Heroes to Artificial Reefs*. Texas Parks and Wildlife: Texas, United States.
- Arnott, T. K. 1984. Torpedo Boat - Queenscliffe. in *Maritime Archaeology Association of Victoria: Project Reports 1984*, Maritime Archaeology Association of Victoria: Melbourne, Australia.
- Arnott, T. K. 1996. *Investigator Strait Maritime Heritage Trail*. State Heritage Branch, Department of Environment and Natural Resources: Adelaide, South Australia.
- Askins, A. 1997. Crossroads Wrecks. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 117-19.
- Attenborough, D. and Roberts, R. 1997. *The Sunbeam*. Unpublished Wreck Inspection Report: Flinders University, South Australia.
- Australian Archives. n.d. *Directory to Microfilm of Register to British Ships*. Manuscript held by the Australian Archives: Australian Archives.
- Australian Institute for Maritime Archaeology Inc. and Australian Cultural Development Office. 1994. *Guidelines for the Management of Australia's Shipwrecks*. Australian Institute for Maritime Archaeology Inc. and the Australian Cultural Development Office: Canberra, Australia.
- Australian Navy Office. 199?. *Australian Warships: Through the Lens 1901 to 1940, Profile No. 6 Revised Edition*. Topmill: Marrickville, Australia.
- Babits, L. E. 1998. The Berth 52 Vessel (09CH691): The Interim Report (1982). in *Maritime Archaeology: A Reader of Substantive and Theoretical Contributions*, (eds.) Lawrence Babits and Hans Van Tilburg. Plenum Press: New York, United States, pp. 187-202.
- Babits, L. E. and Corbin-Kjorness, A. 1995. *Final Report on an Archaeological Survey of the Western Shore of the Pungo River From Wades Point to Woodstock Point*. East Carolina University, United States: Unpublished Report.
- Babits, L. E. and Van Tilburg, H. 1998. Introduction. in *Maritime Archaeology: A Reader of Substantive and Theoretical Contributions*, (eds.) Lawrence Babits and Hans Van Tilburg. Plenum Press: New York, USA, pp. 1-3.
- Bach, J. 1973. Sea Transport in Australia: the Rise and Fall of the Intrastate Shipping Industry of New South Wales. in *Maritime History, Volume 2*, (ed.) Robert Craig. David and Charles (Publishers) Limited: Newton Abbot, United Kingdom.
- . 1976. *A Maritime History of Australia*. Thomas Nelson Ltd.: Sydney, Australia.
- Baker, J. G., Anuskiewicz, R. J., and Garrison, E. G. 1981. Mapping and Site Characterization in Zero Visibility: The C.S.S. Georgia. *Underwater Archaeology: the*

*Challenge Before Us: The Proceedings of the Twelfth Conference on Underwater Archaeology:* 10-20.

- Baker, M. 1997. *Report of Hulk*. Unpublished Wreck Inspection Report: Flinders University, South Australia.
- Baker, R., Baker, M., and Reschke, W. 2000. *Murray River Pilot: Goolwa to SA-NSW Border and Lower Murray, Lakes and Coorong, South Australia*. Published by the Authors: Adelaide.
- Baker, W. A. 1998. The Technical Importance of Shipwreck Archaeology. in *Maritime Archaeology: A Reader of Substantive and Theoretical Contributions*, (eds.) Lawrence E. Babits and Hans Van Tilburg. Plenum Press: New York, United States, pp. 17-23.
- Ballard, G. A. 1920. The Transporting of the Obelisks at Karnak. *The Mariner's Mirror* 6: 264-73, 307-14.
- . 1926. Queen Hatshepsut's Great Lighter. *The Mariner's Mirror* 12: 221-23.
- . 1937. Egyptian Shipping of About 1500B.C. *The Mariner's Mirror* 23: 103-5.
- . 1941. The Great Obelisk Lighter of 1550 B.C. *The Mariner's Mirror* 27: 290-306.
- . 1947. The Egyptian Obelisk Lighter. *The Mariner's Mirror* 33: 158-64.
- Ballard, R. D. and Archbold, R. 1995. *The Discovery of the Titanic: Exploring the Greatest of All Lost Ships*. Madison Publishing Inc.: Toronto, Ontario.
- Barabanov, N. n.d. *Structural Design of Sea-Going Ships*. Peace Publishers: Moscow, USSR.
- Barsness, R. W. 1974. Maritime Activity and Port Development in the United States Since 1900: A Survey. *The Journal of Transport History* 2(3): 167-84.
- Basch, L. 1972. Ancient Wrecks and the Archaeology of Ships. *The International Journal of Nautical Archaeology and Underwater Exploration* 1: 1-58.
- Bass, G. F. 1983. A Plea for Historical Particularism in Nautical Archaeology. in *Shipwreck Anthropology*, (ed.) Richard A. Gould. University of New Mexico Press: Albuquerque, United States, pp. 91-104.
- Bathgate, D. 1979. The History, Topography and Search of Jervis Bay. in *Jervis Bay Shipwrecks*, Michael McCarthy. Department of Maritime Archaeology, Western Australian Museum: Perth, Western Australia, Australia, pp. 38-45.
- Baty, S. 1984. *Ships That Passed*. Reed Books Pty. Ltd.: Frenchs Forest, Australia.
- Bayreuther, W. A. and Hovrath, M. J. 1993. The *Snowsquall* Project: Saving the Last Yankee Clipper Ship. *Bermuda Journal of Archaeology and Maritime History* 5: 99-109.
- Beattie, J. and Pothier, B. 1996. *The Battle of the Restigouche*. Canadian Heritage: Quebec, Canada.
- Bell, J. P. 1979. *Moreton Bay and How to Fathom It*. 7th ed. Queensland Newspapers Pty.

Ltd.: Brisbane, Australia.

- Belle, J. 1977. Ketches and Ketchmen - Mr. Workman's Talk on 20/7/77. *Portonian* 5(3): 10-12.
- Bill, J. 1997. Skuldelev Ships. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 388-89.
- Bird, J. 1968. *Seaport Gateways of Australia*. Oxford University Press: Melbourne, Australia.
- Blackburn, G. J. 1978. *The Illustrated Encyclopaedia of Ships, Boats, Vessels and Other Water-Borne Craft*. John Murray: London, United Kingdom.
- Blainey, G. 1973. *The Causes of War*. The Macmillan Press, Limited: Bungay, Great Britain.
- . 1974. *The Tyranny of Distance*. Sun Books: Melbourne, Australia.
- Bolton, G. C. 1980. 1930-1939. in *A New History of Australia*, vol. 458-503, (ed.) Frank Crowley. Griffin Press Limited: Adelaide, Australia.
- Bound, M. 1990. The Hulk *Jhelum*: a Derivative Expression of Late British Indiaman Ship-Building. *The International Journal of Nautical Archaeology and Underwater Exploration* 19(1): 43-47.
- . 1993. Iron Bean-End Fastenings: Fell's Patent No.8186 A Puzzle Resolved. *The International Journal of Nautical Archaeology and Underwater Exploration* 79: 338-42.
- . 1998. British Sea Power, Ships, Armament, Strategy and Tactics. in *Excavating Ships of War*, (ed.) Mensun Bound. Anthony Nelson: Oswestry, Shropshire, England.
- Bower, R. 1993. *Historical Research of Three Abandoned Hulks in Homebush Bay - A Report Prepared for Bicentennial Park*. Bicentennial Park Authority: Melbourne, Australia.
- Bowes, B. 1995. A Legend Lost. *The Bulletin* December: 54-55.
- Briggs, S. 1999. *Wreck Inspection Report of the Grace Darling*. Unpublished Wreck Inspection Report: Adelaide, South Australia.
- Bright, L. 1993. Beached Shipwreck Dynamics. in *Underwater Archaeology Proceedings From the Society for Historical Archaeology Conference, Kansas City, Missouri*, Ann Arbor, Michigan.
- Brignell, T. L. 1987. *Some Shipwrecks in the Randwick Municipality*. Randwick and District Historical Society Inc.: Sydney, Australia.
- British Register of Australian Shipping*, Australian Archives, Adelaide, SA.
- Broadus, M. 1964. *Depression Decade: From New Era Through New Deal 1929-1941, The Economic History of the United States, Volume IX*. Holt, Rinehart and Winston: New York, United States.
- Broadwater, J. D. 1981. The York River Shipwreck Project: Results From the 1978

- Survey. *In the Realms of Gold: the Proceedings of the 10th Conference on Underwater Archaeology*: 33-44.
- . 1988. Yorktown Shipwreck. *National Geographic* 173(6): 802-23.
- . 1992. Shipwreck in a Swimming Pool: An Assessment of the Methodology and Technology Utilized on the Yorktown Shipwreck Archaeological Project. *Historical Archaeology* Special Issue 4: 36-46.
- . 1995. In the Shadow of Wooden Walls: Naval Transports During the American War of Independence. in *The Archaeology of Ships of War*, (ed.) Mensun Bound. Anthony Nelson: Owesry, Shropshire, pp. 58-63.
- . 1997a. HMS Charon. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 97.
- . 1997c. Yorktown Shipwrecks. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 471-72.
- Broadwater, J. D., Adams, R. M., and Renner, M. 1985. The Yorktown Shipwreck Archaeological Project: An Interim Report on the Excavation of Shipwreck 44T088. *The International Journal of Nautical Archaeology and Underwater Exploration* 14(4): 301-45.
- Broeze, F. J. A. 1975. The Cost of Distance: Shipping and the Early Australian Economy, 1788-1850. *The Economic History Review* 28(4): 582-97.
- . 1992. Private Enterprise and Public Policy: Merchant Shipping in Australia and New Zealand, 1788-1992. in *Land and Sea: The Role of Shipping in Australasian Economic Development*, (eds.) G. D. Snooks and J. J. Pincus. Oxford University Press and the Economic History Society of Australia and New Zealand: Melbourne, Australia, pp. 8-32.
- . 1998. *Island Nation: A History of Australians and the Sea*. Allen & Unwin: New South Wales, Australia.
- Broomhill, R. 1973. The Port in the Great Depression. *Portonian* 1(3): 9-11.
- . 1978. *Unemployed Workers: A Social History of the Great Depression in Adelaide*. University of Queensland Press: St. Lucia, Australia.
- Brouwer, N. 1993. *International Register of Historic Ships*. 2nd Edition ed. New York, United States.
- Brown, A. 1989a. The Ship's Graveyard. *Soundings: The Newsletter of the Society for Underwater Historical Research Inc.* April: 22-26.
- . 1989b. Graveyard Tour. *Soundings: The Newsletter of the Society for Underwater Historical Research Inc.* August: 3-7.
- . 1989c. And Cedric Saw You!: at the North Arm, Port River. *Soundings: Newsletter of the Society for Underwater Historical Research Inc.* November: 9-13.

- . 1990a. The North Arm Graveyard. *Soundings: Newsletter of the Society for Underwater Historical Research Inc.* February: 13-21.
- . 1990b. North Arm Graveyard Visit: 18th February. *Soundings: The Newsletter of the Society for Underwater Historical Research Inc.* April: 7-10.
- Brown, L. J. n.d. *Unofficial History of Explosives Storage in South Australia*. Unpublished Manuscript, City of Salisbury: Salisbury, Australia.
- Broxam, G. n.d. *Broxam Index*, Maritime Museum of Tasmania, Hobart, TAS.
- . 1993. *Shipwrecks of Tasmania's Wild West Coast*. Navarine Publishing, Roebuck Press No.44: Fyshwick, Australia.
- . 1996a. *Shipwrecks of Tasmania's Wild West Coast: Addenda and Errata*. 2nd Edition. Navarine Publishing: Canberra, Australia.
- . 1996b. *Those That Survive: Vintage and Veteran Boats of Tasmania*. Navarine Publishing: Woden, Australia.
- . 1998. *Shipping Arrivals and Departures, Tasmania: Volume 3 1843-1850*. Navarine Publishing: Melbourne, Australia.
- Broxam, G. and Nash, M. 1998. *Tasmanian Shipwrecks Volume 1: 1797-1899*. Navarine Publishing, Roebuck Press No.51: Hobart, Australia.
- . 2000. *Tasmanian Shipwrecks Volume 2: 1900-1999*. Navarine Publishing, Roebuck Press No.54: Hobart, Australia.
- Bruce-Mitford, R. 1974. *Aspects of Anglo-Saxon Archaeology*. Victor Gollancz Limited: London, United Kingdom.
- Bryce, D. 1984. *Weaponry From the Machault: An 18th-Century French Frigate*. Environment Canada: Quebec, Canada.
- Buhagiar, C. and Stevens, R. 1986. Steam Whale-Chaser 'Cheynes III' - Albany, 9-11 April 1982. *The Bulletin of the Australian Institute for Maritime Archaeology* 10(1): 54-57.
- Bullen, I. 1979. A Glimpse into *Niantic's* Hold. *California History* 63(4): 326-33.
- Burn, D. L. 1947. Recent Trends in the History of the Steel Industry. *The Economic History Review* 17(2): 95-102.
- Busselton-Dunsborough Mail*. 1997. Western Australian Maritime Museum, Fremantle, Western Australia.
- Buxton, G. L. 1980. 1870-90. in *A New History of Australia*, (ed.) Frank Crowley. Griffin Press Limited: Adelaide, Australia, pp. 165-215.
- Byron, T. 1987. *Scuba Divers Guide: Australia's Southern Great Barrier Reef*. Aqua Sports Publications Pty. Ltd.: Padstow Heights, Australia.

- Cage, R. A. 1995. The Structure and Profitability of Tramp Shipping, 1850-1920: Some Evidence From Four Glasgow Based Firms. *The Great Circle* 17(1): 1-21.
- Cahill, D. 1984. The Cerberus. in *Maritime Archaeology Association of Victoria: Project Reports 1984*, Maritime Archaeology Association of Victoria: Melbourne, Australia.
- . 1988. Cerberus. in *Iron Ships and Steam Shipwrecks: Papers From the First Australian Seminar on the Management of Iron Vessels and Steam Shipwrecks*, (ed.) Michael McCarthy. Western Australian Maritime Museum: Fremantle, Australia, pp. 160-162.
- . 1996. HMVS Lonsdale 1882 - 1914. *Maritime Archaeology Association of Victoria Projects Report*: 51-53.
- Cahill, D., Carroll, D., Davenport, R., McKenzie, S., and McPherson, D. 1983. *H.M.V.S. Cerberus*. Maritime Archaeology Association of Victoria: Melbourne, Australia.
- Cairns, L. and Henderson, G. 1995. *Unfinished Voyages: Western Australian Shipwrecks 1881-1900*. University of Western Australia Press: Nedlands, Australia.
- Caldow, W. 1991. S.S. Courier. *Wreckings: Newsletter of the Maritime Archaeology Association of Victoria Inc.* 115(February): 4-6.
- . 1996. Courier. *Maritime Archaeology Association of Victoria Projects Report*: 16.
- Callen, T. J. 1978. Hulks at Port Stephens. *The Log*: 120.
- . 1994. *Bar Safe: A History of Newcastle Harbour and Its Entrance*. Newcastle Region Maritime Museum: Newcastle, Australia.
- Cameron, C. M. 1991. Structure Abandonment in Villages. *Archaeological Method and Theory* 3: 155-94.
- Cameron, C. M. and Tomka, S., (eds.). 1993. *Abandonment of Settlements and Regions: Ethnoarchaeological and Archaeological Approaches*. Cambridge University Press: New York, United States.
- Canby, C. 1965. *A History of Ships and Seafaring*. Leisure Arts Limited Publishers: London, United Kingdom.
- Carrell, T. L. 1997. Charles H. Spencer. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 96-97.
- Cassavoy, K. A. and K. J. Crisman. 1996. The War of 1812: Battle for the Great Lakes. in *Ships and Shipwrecks of the Americas: A History Based on Underwater Archaeology*, (ed.) George F. Bass. Thames and Hudson: London, United Kingdom, pp. 169-88.
- Casson, L. 1991. *The Ancient Mariners*. Princeton University Press: Princeton, United States.
- Castles, A. C. and Harris, M. C. 1987. *Lawmakers and Wayward Whigs: Governmental Law in South Australia 1836-1986*. Wakefield Press: Netley, Australia.



- Cederlund, C. O. 1997. Baltic Sea. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 48-53.
- Cerny, J., Jewell, B., Palmqvist, B., and Treloar, T. 1999. *Project Reports: Moltke Wreck Survey, George Rennie and Picnic Bay Area*. Unpublished Report, James Cook University Maritime Fieldschool: Townsville, Australia.
- Chapelle, H. I. 1941. *Boatbuilding: A Complete Handbook of Wooden Boat Construction*. W.W. Norton and Company Inc.: New York, United States.
- Chapman, G. D. 1998. *Wooden Fishing Boats*. Published by the Author: Adelaide, Australia.
- Charlesworth, P. 1990. Site Report on the Wreck of the "An(n)ieura". *Wreckings: Newsletter of the Maritime Archaeology Association of Victoria Inc.* 115(November): 5-9.
- . 1996a. Ozone. *Maritime Archaeology Association of Victoria Projects Report*: 29-31.
- . 1996b. Cerberus. *Maritime Archaeology Association of Victoria Projects Report*: 47.
- Chowdharay-Best, G. 1976. Ancient Maritime Law. *The Mariner's Mirror* 62(1): 81-91.
- Christensen, A. E. 1972. Scandinavian Ships From Earliest Times to the Vikings. in *A History of Seafaring Based on Underwater Archaeology*, (ed.) George F. Bass. New York, United States.
- . 1987. *Guide to the Viking Ship Museum*. Universitetets Oldsaksamling: Bygdoy, Oslo, Norway.
- Christoffersen, J. 1991. Iron Age Finds in Funen (Fyn) - Some Archaeological Problems of Defining Maritime Sites. in *Aspects of Maritime Scandinavia AD200-1200*, (ed.) Ole Crumlin-Pederson. Viking Ship Museum: Roskilde, Denmark, pp. 55-66.
- Christopher, P. 1988. *Divers' Guide to South Australia*. Published by Peter Christopher: Adelaide, Australia.
- . 1989a. *Shores of Tragedy: Shipwrecks of South Australia*. Published by the Author: Adelaide, Australia.
- . 1989b. *...to Save the Lives of Strangers. Famous Shipwrecks of South Australia*. Published by the Author: Adelaide, Australia.
- . 1990. *South Australian Shipwrecks: A Database*. Society for Underwater Historical Research: Adelaide, Australia.
- Claesson, S. 1996. Annabella: the Excavation of a Nineteenth-Century Coasting Schooner in Cape Neddick, Maine. *The INA Quarterly* 23(2): 16-21.
- Clark, C. M. H. 1962. *A History of Australia Volume 1: From the Earliest Times to the Age of Macquarie*. Melbourne University Press: Victoria, Australia.
- . 1978a. *A History of Australia Volume 3: The Beginning of an Australian Civilization 1824-1851*. Melbourne University Press: Victoria, Australia.

- . 1978b. *A History of Australia Volume 4: The Earth Abideth For Ever 1851-1888*. Melbourne University Press: Victoria, Australia.
- . 1980a. *Select Documents in Australian History, 1788 - 1850*. Angus and Robertson Publishers: Sydney, Australia.
- . 1980b. *A Short History of Australia*. 2nd ed. Mentor Books: New York, United States.
- . 1981. *A History of Australia Volume 5: The People Make Laws 1888-1915*. Melbourne University Press: Victoria, Australia.
- . 1987. *A History of Australia Volume 6: 'The Old Dead Tree and the Young Green Tree' 1916-1935*. Melbourne University Press: Victoria, Australia.
- Clark, N. 1988. Shoal Waters in Underwater Cultural Resource Management - The Site Assessment Dilemma. in *Iron Ships and Steam Shipwrecks: Papers From the First Australian Seminar on the Management of Iron Vessels and Steam Shipwrecks*, (ed.) Michael McCarthy. Western Australian Maritime Museum: Fremantle, Australia, pp. 13-18.
- Clark, P. and Jung, S. 1999. *Submerged Material Culture, Beagle Gulf Marine Park, Northern Territory: Gazetteer of Sites*. Maritime Archaeology and History, Museum and Art Gallery of the Northern Territory: Draft Unpublished Report.
- . 2000. Beyond the Wrecked Ship: the Northern Territory's Shipwreck Database. *Draft Paper Given At the AIMA and ASHA, Archaeology, Heritage and Tourism Conference, Adelaide, SA 27 November - 2 December 2000*.
- . 2001. Beyond the Wrecked Ship: the Northern Territory's Shipwreck Database. *The Bulletin of the Australian Institute for Maritime Archaeology* 25: 43-52.
- Clarke, R., Dean, M., Hutchinson, G., McGrail, S., and Squirrel, J. 1993. Recent Work on the R. Hamble Wreck Near Bursledon, Hampshire. *The International Journal of Nautical Archaeology and Underwater Exploration* 22(1): 21-44.
- Cockcroft, A. N., (rev.). 1983. *Nicholls's Seamanship and Nautical Knowledge*. 25th ed. Brown, Son and Ferguson Ltd.: Glasgow, United Kingdom.
- Cockrell, W. A. 1983. A Trial Model for the Analysis of Shipwrecks. in *Shipwreck Anthropology*, (ed.) Richard A. Gould. University of New Mexico Press: Albuquerque, United States, pp. 207-19 .
- COIITC (Committee of Inquiry into Technological Change in Australia). 1980a. *Technological Change in Australia, Volume 1: Technological Change and Its Consequences, Including Discussions of Processes of Change, Conclusions, and Recommendations for Maximising Benefits and Minimising Adverse Consequences*. Australian Government Publishing Service: Canberra, Australia.
- . 1980b. *Technological Change in Australia, Volume 2: Technological Change in Industry, Likely Technologies and Applications in Australia*. Australian Government Publishing Service: Canberra, Australia.

- Colton, H. S. 1957. The Colorado River Steamboat "Charles H. Spencer". *Steamboat Bill: Journal of the Steamship Historical Society of America* 61(7): 6-7.
- Commonwealth Government. 1932. *Beaches, Fishing Ground and Sea Routes Protection Act 1932*.
- Commonwealth Government. 1992. *The Shipbuilding Industry: In the Wake of the Bounty*. Report by the House of Representatives, Australian Government Publishing Services: Canberra, Australia.
- Conlin, D. L. 1997. Ship Trap. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 377.
- Conrad, J. 1993. *Lord Jim*. Wordsworth Editions Limited: London, United Kingdom.
- Corbin, A. 2000. *The Material Culture of Steamboat Passengers: Archaeological Evidence From the Missouri River*. Kluwer Academic/Plenum Publishers: New York, United States.
- Cormack, N. 1978a. Sagas of Sail The Garthneill. *South Australian Ports and Shipping Journal* July: 6.
- . 1978b. Sagas of Sail: On American Wooden, Deepwater Sailing Ships. *South Australian Port and Shipping Journal* October: 11.
- . 1978c. Ships in the North Arm graveyard. in *South Australian Ports and Shipping Journal*, December.
- . 1979. Voices From the Past. in *Tall True Tales of the Sea: by Old Shellbacks*, Investigator Press: Adelaide, Australia, pp. 27-28 .
- Coroneos, C. 1991. One Interpretation for the Short Working Lives of Early Australian Wooden Sailing Vessels in Victorian Waters. *The Bulletin of the Australian Institute for Maritime Archaeology* 15(2): 7-14.
- . 1997a. *Richmond River Maritime History Survey - 1840-1960: Part B, Results of the Maritime Archaeological Investigation*. Unpublished report for the Richmond River Shire Council: Maroubra, Australia.
- . 1997b. *Shipwrecks of Encounter Bay and Backstairs Passage*. Australian Institute for Maritime Archaeology and Australian National Centre of Excellence for Maritime Archaeology: Adelaide, Australia.
- , (comp.). 1997c. *Wreck Survey Project: Shipwrecks of New South Wales*. New South Wales Heritage Office: Sydney, Australia.
- . 1997d. *Maritime Archaeological Assessment of the Proposed Development for Penneshaw Harbour*. New South Wales Heritage Office: Sydney, Australia.
- . 1998a. *Myall Lakes Shipwrecks Study*. Report for the NSW State Heritage Office: Maroubra, Australia.

- . 1998b. *Northside Storage Tunnel Project: Maritime Heritage Assessment of Long Bay, Middle Harbour*. Report to Northside Storage Tunnel Alliance: Maroubra, Australia.
- . 1998c. *Maritime Archaeological Assessment of the Southern Cross, Fibre Optic Cable Landings: North Narrabeen and Long Bay to Bondi*. Report to Patterson Britton and Partners Pty. Ltd.: Maroubra, Australia.
- . 2000. *Mouth of the Brisbane River: Maritime Archaeology Preliminary Assessment*. Report by the Author for Ann Wallin and Associates: Brisbane, Australia.
- Coroneos, C. and McKinnon, R. 1997. *Shipwrecks of Investigator Strait and the Lower Yorke Peninsula*. Australian Institute for Maritime Archaeology and Australian National Centre of Excellence for Maritime Archaeology: Adelaide, Australia.
- Coroneos, C., Richards, N. T., and Smith, S. 2001. *Homebush Bay Remediation, Rhodes Peninsula/Homebush Bay: Maritime Archaeology Assessment*. Report prepared for PPK Environment and Infrastructure, Rhodes, New South Wales: Maroubra, Australia.
- Cotter, R. 1967a. The Golden Decade. in *Essays in Economic History of Australia: 1788-1939*, (ed.) James Griffith. Jacaranda Press Pty. Ltd.: Brisbane, Australia, pp. 113-34.
- Cotter, R. 1967b. War, Boom and Depression. in *Essays in Economic History of Australia: 1788-1939*, (ed.) James Griffith. Jacaranda Press Pty. Ltd.: Brisbane, Queensland, pp. 244-82.
- Countersunk. 1989. Marine Insurance. *Australasian Ships and Ports Magazine* 2(1): 7.
- Courier Mail*. 1963 – 1986. John Oxley Library, Brisbane, Queensland.
- Course, A. G. 1969. *Windjammers of the Horn: The Story of the Last British Fleet of Square-Rigged Sailing Ships*. Aldard Coles Limited: London, Great Britain.
- Court, W. H. B. 1945. Problems of the British Coal Industry Between the Wars. *The Economic History Review* 15(1 & 2): 1-24.
- Cousteau, J. 1958. *The Silent World*. Penguin Books: London, United Kingdom.
- Crawford, S., (comp.). 1939. *Hauling for Profit: Freight and Passenger Transport in Australia*. The Advertiser Printing Office: Adelaide, Australia.
- Cree, N. 1989. Port's Scrap Heap. *Australasian Ships and Ports Magazine* 1(12): 17.
- Crisman, K. J. 1995. "Coffins of the Brave": A Return to Lake Champlain's War of 1812 Ship Graveyard. *INA Quarterly* 22(1): 4-8.
- . 1996. Struggle for a Continent: Naval Battles of the French and Indian Wars. in *Ships and Shipwrecks of the Americas: A History Based on Underwater Archaeology*, (ed.) George F. Bass. Thames and Hudson: London, United Kingdom, pp. 129-48.
- . 1997. Boscawen. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.)

- James P. Delgado. British Museum Press: London, United Kingdom, pp. 69-70.
- Crowley, F. 1980. 1901-14. in *A New History of Australia*, vol. 260-311, (ed.) Frank Crowley. Griffin Press Limited: Adelaide, Australia.
- Crowther, W. 1975. *Joseph Conrad and the Barque Otago: Notes Prepared by Sir William Crowther for the Handing Over of the Restored Companionway Superstructure to the Officer's Cuddy From the Vessel*. Unpublished Manuscript: State Library of Tasmania.
- Crumlin-Pedersen, O. 1972. Wrecks in the North Sea and the Baltic. in *Underwater Archaeology: A Nascent Discipline*, UNESCO. United Nations Educational, Scientific and Cultural Organization: Paris, France, pp. 65-75 .
- . 1991a. Introduction. in *Aspects of Maritime Scandinavia AD200-1200*, (ed.) Ole Crumlin-Pederson. Viking Ship Museum: Roskilde, Denmark, pp. 7-9.
- . 1991b. Maritime Aspects of the Archaeology of Roman and Migration-Period Denmark. in *Aspects of Maritime Scandinavia AD200-1200*, (ed.) Ole Crumlin-Pederson. Viking Ship Museum: Roskilde, Denmark, pp. 41-53.
- . 1991c. Ship Types and Sizes AD 800-1400. in *Aspects of Maritime Scandinavia AD200-1200*, (ed.) Ole Crumlin-Pederson. Viking Ship Museum: Roskilde, Denmark, pp. 69-82.
- Cullen Bay Dive. 2000. *Handbook on Diving in Darwin*. Cullen Bay Dive: Darwin, Australia.
- Culliton, J. W. 1974. Economics and Shipbuilding. in *The Shipbuilding Business in the United States of America, Volume 1*, (ed.) Jr. F. G. Fassett. Macdonald and Jane's: New York, United States, pp. 1-13.
- Cumming, E. M. and Carter, D. J. 1990. The *Earl of Abergavenny* (1805), an Outward Bound English East Indiaman. *The International Journal of Nautical Archaeology and Underwater Exploration* 19(1): 31-33.
- Cunningham, T. J. 1988. About Docks That Are Closed and Ships That Have Gone: Reminiscences of Thomas James Cunningham. *Portonian* 16(4): 3-8.
- Curby, P. 1997. *Richmond River Maritime History Survey - 1840-1960: Part A*. Unpublished report for the Richmond River Shire Council: Cronulla, Australia.
- Cushanan, S. and Staniforth, M. 1982. Magnetometers for Wrecksite Location. *Bulletin of the Australian Institute for Maritime Archaeology* 6: 62-80.
- Cussler, C. and Dirgo, C. 1997. *The Sea Hunters*. Pocket Star Books: New York, United States.
- Dalgairns, S. and Peterson, A. 1997. *The Garthneill*. Unpublished ARCH 3005 field report: Flinders University, South Australia.
- Darkin, G. 1997. *Gem*. Unpublished ARCH 3005 field report: Flinders University, South Australia.
- Davenport, W., (comp.). 1986. *Harbours and Marine: Port and Harbour Developments in*

- Queensland From 1824-1985*. Department of Harbours and Marine: Brisbane, Australia.
- Davies, M. 1998. Shipping Freight Costs: South Australian Copper and Copper-Ore Cargoes, 1845-1870. *The Great Circle* 20(2): 90-119.
- de Garis, B. K. 1980. 1890-1900. in *A New History of Australia*, (ed.) Frank Crowley. Griffin Press Limited: Adelaide, Australia, pp. 216-59.
- De Rooy, M. 1987. *Taking the Rough With the Smooth: The Depression Experience in Port Adelaide, 1929-1931*. Unpublished History Honours Thesis: Adelaide University, South Australia.
- Dean, M. and Miller, S. 1979. The Story of the St Mary. *Falkland Islands Journal*: 35-41.
- Dean, N. 1997a. Actaeon. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 18.
- . 1997b. Charles Cooper. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 95-96.
- . 1997c. Egeria. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 138.
- . 1997d. Falklands Wrecks and Hulks. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 148-50.
- . 1997e. St. Mary. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 352-53.
- . 1997f. Snow Squall. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 392-93.
- Delgado, J. P. 1979. No Longer a Buoyant Ship: Unearthing the Gold Rush Storeship *Niantic*. *California History* 63(4): 316-25.
- . 1983. A Gold Rush Enterprise: Sam Ward, Charles Mersch, and the Storeship *Niantic*. *Huntington Library Quarterly* 46: 321-30.
- . 1984. Erosion Exposed Shipwreck Remains: Winter 1982. in *Submerged Cultural Resources Survey: Portions of Point Reyes National Marine Sanctuary*, (ed.) Larry E. Murphy. Submerged Cultural Resources Unit, National Parks Service: Santa Fe, United States, pp. 179-85.
- . 1985. Skeleton in the Sand: Documentation of the Environmentally Exposed 1856 Ship *King Phillip*, San Francisco. *Proceedings of the Sixteenth Annual Conference on Historical Archaeology*, pp. 30-36.
- . 1986. Documentation and Identification of the Two-Masted Schooner *Neptune*. *Historical Archaeology* 20: 95-108.

- . 1996. *Ghost Fleet: The Sunken Ships of Bikini Atoll*. University of Hawai'i Press: Honolulu, United States.
- . 1997a. Blackfriars Wrecks. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 64-66.
- . 1997b. Bounty. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 70-71.
- . 1997c. County Hall Ship. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 115-16.
- . 1997d. Earl of Abergavenny. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 136-37.
- . 1997e. Hjortspring Boat. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 193.
- . 1997f. New Guys House Boat. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 295-96.
- . 1997g. Niantic. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 297.
- . 1997h. Nydam Boat. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 300-301.
- . 1997i. Quebec Bateaux. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 332-33.
- . 1997j. Vicar of Bray. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 457-58.
- Department of Arts, Sport, the Environment, Tourism and Territories. 1990. *Handbook for Inspectors*. 1st edition. Superfine Printing Co. Pty. Ltd.: Canberra, Australia.
- Department of Environment and Planning. 1983. *Conserving Our Historic Shipwrecks*. South Australian Department of Environment and Planning: Adelaide, Australia.
- Derksen, F. 1990. The Annieura. *Wreckings* 112: 6-9.
- Devendra, S. 1993. Remains of Riverine Craft: Material for Ecological and Community Studies. *The Bulletin of the Australian Institute for Maritime Archaeology* 17(2): 17-24.
- Dick, B. 1946. The Marine Insurance Market. in *Institute Handbook on Marine Contracts*, Institute of London Underwriters. Witherby & Co. Ltd.: London, United Kingdom.

Kingdom.

- Dickey, B. 1986. *Rations, Residence, Resources*. Wakefield Press: Netley, Australia.
- Dobson, N. 1997. Maritime Fife Completes Phase 2. *Nautical Archaeology: Society Newsletter for the World of Underwater, Foreshore, Ship and Boat Archaeology* Spring: 1-3.
- Doyle, C. 2000. *An Examination of Associations Between Significant Historic Events and the Loss and Discard of Vessels in the Townsville Catchment, 1865 - 1981*. James Cook University Masters Thesis: Townsville, Queensland.
- Dugan, J. 1960. *Man Explores the Sea*. Penguin Books: London, United Kingdom.
- Dumas, F. 1972. Ancient Wrecks. in *Underwater Archaeology, a Nascent Discipline*, UNESCO. UNESCO: Paris, France.
- Duncan, B. 1994. *The Ships Graveyard Area Wrecks: Case for Provisional Declaration As Historic Shipwrecks*. Unpublished Report by the Maritime Heritage Unit, Heritage Victoria: Melbourne, Victoria.
- . 2000. *Signposts in the Sea: An Investigation of the Shipwreck Patterning and Cultural Seascapes of the Gippsland Region, Victoria*. Unpublished Archaeology Honours Thesis, James Cook University: Townsville, Australia.
- Dundon, G. 1997. *The Shipbuilders of Brisbane Water NSW: Including 500 Named Vessels Built Between 1829 and 1953*. Openbook Publishers: Adelaide, Australia.
- Dyos, H. J. and Aldcroft, D. H. 1969. *British Transport: An Economic Survey From the Seventeenth Century to the Twentieth*. Leicester University Press: Leicester, United Kingdom.
- Dyster, B. 1981. The Port of Launceston Before 1851. *The Great Circle* 3(2): 103-24.
- Edmonds, L., Kenderdine, S., Nayton, G., and Staniforth, M. 1995. *Historic Shipwrecks National Research Plan*. Department of Communication and the Arts: Canberra, ACT.
- Edwin Fox Restoration Society Inc. 1987. *The Story of the Edwin Fox*. 2nd ed. Toneden Promotions: Picton, New Zealand.
- Eighmy, J. L. 1981. The Use of Material Culture in Diachronic Anthropology. in *Modern Material Culture: The Archaeology of Us.*, Richard A. Gould and Michael B. Schiffer. Academic Press: New York, United States, pp. 31-50.
- Einarsson, L. 1997. Kalmar Harbour Wrecks. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 219-20.
- El-Baz, F. 1988. Finding a Pharaoh's Funeral Bark. *National Geographic* 173(4): 513-33.
- Eliason, A., (comp.). 1992a. *Australian Registers of British Ships, Volume 1: Introduction, Indexes by Ships' Name*. Published by the Author: Canberra, Australia.



- . (comp.). 1992b. *Australian Registers of British Ships, Volume 2: Indexes by Official Number*. Published by the Author: Canberra, Australia.
- Eliot, J. E. 1992. Bikini's Nuclear Graveyard. *National Geographic* 181(6): 70-83.
- Ellis, W. S. 1987. Africa's Sahel: The Stricken Land. *National Geographic* 172(2): 140-179.
- Emery, M. 1997. Successful Search for Sunken Boats. *Nautical Archaeology: Society Newsletter for the World of Underwater, Foreshore, Ship and Boat Archaeology* Spring: 4.
- Engel, B. A., Winn, J., and Wark, J. 2000. *Tea Gardens - Hawks Nest and Northern Port Stephens: A Local History of the Pioneers of the Northern Shores of Port Stephens*. Published by Brian A. Engel: New Lambton, Australia.
- . 2001. *Tea Gardens Walk: An Historic Tour of the Town*. Published by Brian A. Engel: New Lambton, Australia.
- Erskine, N. 1997a. Construction Analysis of the *Day Dawn*. *The Bulletin of the Australian Institute for Maritime Archaeology* 21(1&2): 111-16.
- . 1997b. Survivors From the Wreck of *Day Dawn*. *The Bulletin of the Australian Institute for Maritime Archaeology* 21(1&2): 117-18.
- Evans, A. C. 1987a. The Coming of the Anglo-Saxons. in *History From Beneath the Sea: Shipwrecks and Archaeology*, (ed.) Peter Throckmorton. RD Press: Melbourne, Australia, pp. 112-15 .
- . 1987b. A Kingly Burial. in *History From Beneath the Sea: Shipwrecks and Archaeology*, (ed.) Peter Throckmorton. RD Press: Melbourne, Australia, pp. 116-22.
- . 1997a. Gokstad Ship. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 172-74.
- . 1997b. Oseberg Ship. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 302-3.
- . 1997c. Snape Boat. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 392.
- . 1997d. Sutton Hoo. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 411-13.
- . 1997e. Tune Ship. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 428-29.
- Evans, W. P. 1969. *Port of Many Prows*. The Hawthorn Press: Melbourne, Australia.
- Eyres, D. J. 1980. *Ship Construction*. 2nd ed. Heinemann: London, United Kingdom.
- Farr, G. 1969. Custom House Ship Registers. *The Mariner's Mirror* 55(4): 3-15.
- Fassett, Jr. F. G. 1974. Foreword. in *The Shipbuilding Business in the United States of America, Volume 1*, (ed.) Jr. F. G. Fassett. Macdonald and Jane's: New York, United States,

pp. vii-ix.

- Fenwick, V. H. 1972. The Graveney Boat. A Pre-Conquest Discovery in Kent. *The International Journal of Nautical Archaeology and Underwater Exploration* 1: 119-29.
- , (ed.). 1978. *The Graveney Boat: a Tenth-Century Find From Kent, Excavation and Recording; Interpretation of the Boat Remains and the Environment; Reconstruction and Other Research; Conservation and Display*. Oxford, United Kingdom: BAR British Series 53.
- . 1997. Graveney Boat. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 175-76.
- Ferrall, R. A. 1983. *The Story of the Port of Launceston*. Port of Launceston Authority: Launceston, Australia.
- Fisher, J. 1977. *The Australians: From 1788 to Modern Times*. Seal Books: London, United Kingdom.
- Fisher Jr., A. C. 1979. Two Englands. *National Geographic* 156(4): 442-81.
- Fisheries Division. 1992. *Darwin's Artificial Reefs*. Department of Primary Industries and Fisheries: Darwin, Australia.
- Fitchett, T. K. 1976. *The Vanished Fleet: Australian Coastal Passenger Ships 1910-1960*. Melbourne, Australia: Rigby Limited.
- Fitzpatrick, B. 1969. *The British Empire in Australia: An Economic History 1834-1939*. Macmillan of Australia: South Melbourne, Australia.
- Fletcher, M. E. 1958. The Suez Canal and World Shipping 1869-1914. *Journal of Economic History* 18(4): 556-73.
- . 1975. From Coal to Oil in British Shipping. *The Journal of Transport History* 3(2): 1-19.
- Flynn, M., (ed.). 2000. *North Australian Fishing Maps: Fish Finder*. The Editor's Office: Darwin, Australia.
- Fontenoy, P. 1994. A Discussion of Maritime Archaeology. in *Maritime Archaeology: A Reader of Substantive and Theoretical Contributions*, (eds.) Lawrence E. Babits and Hans Van Tilburg. Plenum Press: New York, United States, pp. 47-52.
- Ford, J. 1997. *Unidentified Shipwreck D*. Unpublished ARCH 3005 field report: Flinders University, South Australia.
- Foster, L. 1987a. Doing Shipwreck History. *Bulletin of the Australian Institute for Maritime Archaeology* 11(2): 47-49.
- . 1987b. *Port Phillip Shipwrecks Stage 1: An Historical Survey*. Victoria Archaeological Survey: Melbourne, Australia.
- . 1988. *Port Phillip Shipwrecks Stage 2: An Historical Survey*. Victoria Archaeological Survey: Melbourne, Australia.

- . 1989a. Defence and Victorian Shipwrecks. *Bulletin of the Australian Institute for Maritime Archaeology* 13(1): 19-27.
- . 1989b. *Port Phillip Shipwrecks Stage 3: An Historical Survey*. Victoria Archaeological Survey: Melbourne, Australia.
- . 1990. *Port Phillip Shipwrecks Stage 4: An Historical Survey*. Victoria Archaeological Survey: Melbourne, Australia.
- Foster, M. 1996. *Unidentified Ketch*. Unpublished ARCH 3005 field report: Flinders University, South Australia.
- Foulke, R. 1989. Conrad and the Power of Seamanship. *The Great Circle* 11(1): 14-27.
- Franke, J. 1999. *Applying Photomodeler in Maritime Archaeology: A Photogrammetric Survey of the J3 Submarine Wreck*. Western Australian Maritime Museum, No.6: Report - Australian National Centre of Excellence for Maritime Archaeology, Fremantle, Australia.
- French, C. J. 1973. Eighteenth Century Shipping Tonnage Measurements. *Journal of Economic History* 33(2): 434-44.
- Friel, I. 1993. Henry V's *Grace Dieu* and the Wreck in the R. Hamble Near Bursledon, Hampshire. *The International Journal of Nautical Archaeology and Underwater Exploration* 22(1): 3-19.
- Garratt, Dena, (comp.). 1999. *Precis of the Wrecks in the Ship's Graveyard, Rottneest*. Report No.148. Fremantle, Australia: Department of Maritime Archaeology, WA Maritime Museum.
- Garratt, D. and Souter, C. 1997. *Jervoise Bay Project Report: A Survey of the Shipwrecks Abemama and SS Alacrity*. Department of Maritime Archaeology, Western Australian Maritime Museum Report No. 127: Fremantle, Australia.
- Garrison, E. 1997. CSS Georgia. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 168-69.
- Gazeley, I. and Rice, P. 1996. Wages and Employment in Britain Between the Wars: Quarterly Evidence From the Shipbuilding Industry. *Explorations in Economic History* 33: 296-318.
- Gerr, S. 1975. The Suitability of the Big Wooden Schooner for Long-Distance Deep-Sea Trading. *The Mariner's Mirror* 61(4): 399-403.
- Gesner, P. 1991. *Pandora: An Archaeological Perspective*. Queensland Museum: Brisbane, Australia.
- . 2000. HMS Pandora Project - A Report on Stage 1: Five Seasons of Excavation. *Memoirs of the Queensland Museum: Cultural Heritage Series* 2(1): 1-52.
- Gibb, J. B. 1996. *The Archaeology of Wealth: Consumer Behaviour in English America*. Plenum Press: New York, United States.

- Gibbins, D. and Adams, J. 2001. Shipwrecks and Maritime Archaeology. *World Archaeology* 32(3): 279-91.
- Gibbs, M. 2002. Maritime Archaeology and behaviour during crisis: The Wreck of the VOC Ship *Batavia* (1629). in *Natural Disasters, Catastrophism and Cultural Change*, (eds.) J. Grattan and R. Torrence. One World Archaeology, Routledge: London, United Kingdom, pp. 128-45.
- . 2003. The Archaeology of Crisis: Shipwreck Survivor Camps in Australasia. *Historical Archaeology* 37(1): 128-45.
- Gibson-Wilde, D. 1984. *Gateway to a Golden Land: Townsville to 1884*. History Department, James Cook University: Townsville, Australia.
- Gifford, E. and Gifford, J. 1995. The Sailing Characteristics of Saxon Ships As Derived From Half-Scale Working Models With Special Reference to the Sutton Hoo Ship. *The International Journal of Nautical Archaeology and Underwater Exploration* 24(2): 121-31.
- Gifford, P. 1992. The Effects of the British Seamen's Strike of 1925 on Fremantle. *The Great Circle* 14(2): 73-87.
- Glassford, R. W. 1953. A Fleet of Hulks. *Royal Australian Historical Society: Journal and Proceedings* 39(5): 217-52.
- Goldrick, J. 1995. The Problems of Modern Naval History. in *Doing Naval History: Essays Toward Improvement*, (ed.) John B. Hattendorf. Naval War College Press: Newport, United States, pp. 11-23.
- Gomboso, S. 1986. Site Investigation: SS Ajax. *Newsletter of the Marine Archaeological Society, Newcastle* 3(1): 7.
- Goodburn, D. 1990. Fragments of an Early Carvel-Built Vessel From Camber, East Sussex, England. *The International Journal of Nautical Archaeology and Underwater Exploration* 19(4): 327-34.
- Goold-Adams, R. 1976. *The Return of the Great Britain*. Weidenfeld and Nicolson: London, United Kingdom.
- Gould, R. A. 1983a. Looking Below the Surface: Shipwreck Archaeology As Anthropology. in *Shipwreck Anthropology*, (ed.) Richard A. Gould. University of New Mexico Press: Albuquerque, United States, pp. 3-22.
- . 1983b. The Archaeology of War: Wrecks of the Spanish Armada of 1588 and the Battle of Britain, 1940. in *Shipwreck Anthropology*, (ed.) Richard A. Gould. University of New Mexico Press: Albuquerque, United States, pp. 105-42.
- . 1989. H.M.S. *Vixen*: An Early Ironclad Ram at Bermuda. *Bermuda Journal of Archaeology and Maritime History* 1: 43-80.
- . 1991. The Archaeology of HMS *Vixen*, an Early Ironclad Ram in Bermuda. *The International Journal of Nautical Archaeology and Underwater Exploration* 20(1): 141-53.

- . 1993. Bird Key Harbor Brick Wreck (FOJE 029) 1990 Fieldwork. in *Dry Tortugas National Park: Submerged Cultural Resources Assessment*, (ed.) Larry E. Murphy. Submerged Cultural Resources Unit, National Parks and Wildlife Service: Santa Fe, United States.
- . 1995. The Bird Key Wreck, Dry Tortugas National Park, Florida. *The Bulletin of the Australian Institute for Maritime Archaeology* 19(2): 7-16.
- . 1997. HMS Vixen. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 459-60 .
- . 2000. *Archaeology and the Social History of Ships*. Cambridge University Press: Cambridge, United Kingdom.
- Government Record Group 51*. South Australian State Archives, Netley, South Australia.
- Gow, W. 1914. *Sea Insurance: According to British Statute*. MacMillan and Co. Ltd.: London, United Kingdom.
- Graeme-Evans, A. and Wilson, P. 1996. *Built to Last: The Story of the Shipwrights of Port Cygnet, Tasmania, and Their Boats 1863-1997*. 2nd ed. Tasbook Publishers: Woodbridge, Australia.
- Graham, G. S. 1958. The Transition From Paddle-Wheel to Screw Propeller. *The Mariner's Mirror* 44(1): 35-48.
- Green, J. N. 1977. *Australia's Oldest Wreck: The Loss of the Trial, 1622*. British Archaeological Reports, supplementary series 27: Oxford, United Kingdom.
- . 1990. *Maritime Archaeology: A Technical Handbook*. Academic Press: London, United Kingdom.
- Green, J. N. and Vosmer, T. 1993. The Australian Shipwrecks Database: an Interim Report. *The Bulletin of the Australian Institute for Maritime Archaeology* 17(2): 33-38.
- Greenhill, B. and Morrison, J. 1995. *The Archaeology of Boats and Ships*. Naval Institute Press: Annapolis, United States.
- Gregory, R. G. 1988. An Overview. in *Recovery From the Depression: Australia and the World Economy in the 1930s*, (eds.) R. G. Gregory and N. G. Butlin. Cambridge University Press: Melbourne, Australia, pp. 1-32.
- Griffiths, D. 1995. British Shipping and the Diesel Engine: The Early Years. *The Mariner's Mirror* 81(3): 313-31.
- Griffiths, L. and Jeffery, W. n.d. *River Boat Trail: South Australia*. State Heritage Branch, Department of Environment and Natural Resources, South Australian Tourism Commission: Adelaide, Australia.
- Guthrie, J. N., Blackall, L. L., Moriarty, D. J. W., and Gesner, P. 1994. Wrecks and Marine Microbiology: Case Study From the *Pandora*. *The Bulletin of the Australian Institute for Maritime Archaeology* 18(2): 19-24.

- Guthrie, J. 1971. *A History of Marine Engineering*. Hutchinson Educational Ltd.: London, United Kingdom.
- Hacker, D. R. and Spinaeze, M. P. 1996. *Ships of Ships: A Short Account of Peters Slip, 56 Baidon Street, Kangaroo Point (1856-1992)*. The Queensland Women's Historical Association: Brisbane, Australia.
- Haldane, C. 1992. The Lisht Timbers: A Preliminary Report. in *The Pyramid Complex of Senwosret I at Lisht: Metropolitan Museum of Art Egyptian Expedition XXV, The Southern Cemeteries at Lisht III*, (ed.) D. Arnold. Metropolitan Museum of Art: New York, United States, pp. 102-12 and plates .
- . 1997a. Dashur Boats. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 122-23.
- . 1997b. Khufu Ships. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 222-23.
- . 1997c. Lisht Timbers. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 241-42.
- Halls, C. 1973. *Port Adelaide Sketchbook*. Rigby Limited: Sydney, Australia.
- . 1975. A Tale of Two Coal Hulks. *Port of Fremantle Quarterly* Summer: 8-10.
- . 1979. Saga of the Omeo. *Port of Fremantle Quarterly* Winter: 18-19.
- Hamilton, J. A. 1903. *Lee's Laws of British Shipping and of Marine Assurance Including The Merchant Shipping Consolidations Act, 1894*. 12th ed. George Philip and Son Ltd.: London, United Kingdom.
- Hammond, D. 1996. *Maritime Australia Volume 1: The Port of Hobart, Tasmania*. Southern Holdings Pty. Ltd.: Lucaston, Tasmania, Australia.
- Hammond, N. 1995. Graveyard of Wooden Ships Found on Thames Foreshore. *Nautical Archaeology: Society Newsletter for the World of Underwater, Foreshore, Ship and Boat Archaeology* Autumn: 4.
- Hardy, D. 1997. Itata (1883-1906). in *Wreck Survey Project: Shipwrecks of New South Wales*, (comp.) Cosmos Coroneos. New South Wales Heritage Office: Sydney, Australia, pp. 45-47.
- Harlaftis, G. 1997. At the Mercy of the Waves: Managing Risk at Sea in the Greek Fleet of the Interwar Period. *The Great Circle* 19(2): 73-92.
- Harley, C. K. 1971. The Shift From Sailing Ships to Steamships 1850-1890: A Study in Technological Change and Its Diffusion. in *Essays on a Mature Economy: Britain After 1840*, (ed.) Donald N. McClosky. Methuen: London, United Kingdom, pp. 215-31.
- . 1973. On the Persistence of Old Techniques: The Case of North American Wooden Shipbuilding. *Journal of Economic History* 33(2): 372-98.

- Harris, C. 1982. Barges. *Annual Report of the Society for Underwater Historical Research*: 17-19.
- Hartell, R. 2002. *Port Adelaide: Ships' Graveyards (Garden Island, Jervois Basin, Mutton Cove, Angas Inlet, Broad Creek)*. Pamphlet produced by Heritage South Australia, Department for Environment and Heritage: Adelaide, Australia.
- Hartell, R. and Richards, N. T. 2001. *Garden Island Ships' Graveyard, Maritime Heritage Trail*. Heritage South Australia, Department for Environment and Heritage: Adelaide, Australia.
- Hartwell, R. M. 1954. *The Economic Development of Van Diemen's Land 1820-1850*. Melbourne University Press: Carlton, Victoria.
- Harvey, F. R. 2000. The Last Voyage of the "Macdhui" 6-18 June, 1942: Unrecognised Sacrifice by Merchant Fleets During World War II. *The Great Circle* 22(1): 17-29.
- Hazzard, D. K. 1982. The Yorktown Shipwreck Archaeology Project. *Underwater Archaeology: the Proceedings of the 11th Conference on Underwater Archaeology*: 39-44.
- Heal, S. V. E. and Hutchinson, G. 1986. Three Recently Found Logboats. *The International Journal of Nautical Archaeology and Underwater Exploration* 15(3): 205-13.
- Henderson, G. 1988. The Archaeological Value of Iron Vessels and Steamships. in *Iron Ships and Steam Shipwrecks: Papers From the First Australian Seminar on the Management of Iron Vessels and Steam Shipwrecks*, (ed.) Michael McCarthy. Western Australian Maritime Museum: Fremantle, Australia, pp. 10-12.
- Henderson, G. and Henderson K.J. 1988. *Unfinished Voyages, 1850-1880, Volume 2*. University of Western Australia Press: Nedlands, Australia.
- Henning, G. R. and Henning, M. 1990. Technological Change From Sail to Steam: Export Lumber Shipments From the Pacific Northwest, 1898-1913. *International Journal of Maritime History* 2(2): 133-45.
- Henry, S. L. 1991. Consumers, Commodities, and Choices: A General Model of Consumer Behaviour. *Historical Archaeology* 25(2): 3-14.
- Hewitt, G. 1984a. Port Welshpool - Remains of Bottom-Dump Spoil Lighter. in *Maritime Archaeology Association of Victoria: Project Reports 1984*, Maritime Archaeology Association of Victoria: Melbourne, Australia.
- . 1984b. St. Leonards Site A. in *Maritime Archaeology Association of Victoria: Project Reports 1984*, Maritime Archaeology Association of Victoria: Melbourne, Australia.
- . 1984c. Port Welshpool - Remains of a Bottom-Dump Spoil Lighter. *The Bulletin of the Australian Institute for Maritime Archaeology* 8(2): 24-34.
- Hobart Community Express*. 1967. State Library of Tasmania, Hobart, Tasmania.
- Hockmann, O. 1993. Late Roman Rhine Vessels From Mainz, Germany. *The International Journal of Nautical Archaeology and Underwater Exploration* 22(2): 125-35.

- . 1997. Mainz Boats. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 255-56.
- Hodder, I. 1999. *The Archaeological Process: An Introduction*. Blackwell Publishers: Oxford, United Kingdom.
- Holdcamper, F. R. 1964. Biography of the List of Merchant Vessels of the United States. *American Neptune* 24(2): 119-23.
- Holman, M. R. 1953. *A Handy Book for Shipowners and Masters*. 15th ed. The Commercial Printing and Stationery Co. Ltd.: London, United Kingdom.
- Hooper, J. N. A. and Ramm, D. C. 1989. *Preliminary Report on Artificial Reefs in the Vicinity of Darwin Harbour, and Recommendations for the Design and Establishment of Further Reef Structures*. Unpublished report by the Northern Territory Museum of Arts and Sciences and the Department of Primary Industry and Fisheries: Darwin, Australia.
- Hopkins, F. 1995. The Final Anchorage: The WW1 Emergency Fleet Wrecks at Mallow's Bay. *Underwater Archaeology Proceedings From the Society for Historical Archaeology Conference, Washington D.C.*: 72-76.
- Horne, D. 1971. *The Lucky Country*. Penguin Books: Adelaide, Australia.
- Hosty, K. and Stuart, I. 1994. Maritime Archaeology Over the Last Twenty Years. *Australian Archaeology* 39: 9-19.
- Howe, O. T. and Matthews, F. C. 1986. *American Clipper Ships, 1833-1858: Volume 2 (Malay - Young Mechanic)*. Dover Publications: New York, United States.
- Hudson, W. J. 1980. 1951-72. in *A New History of Australia*, vol. 504-551, (ed.) Frank Crowley. Griffin Press Limited: Adelaide, Australia.
- Hudspeth, A. and Scripps, L. 2000. *Capital Port: A History of the Marine Board of Hobart 1858-1997*. Hobart Ports Corporation: Hobart, Australia.
- Hughes, H. 1964. *The Australian Iron and Steel Industry 1848-1962*. Melbourne University Press: Melbourne, Australia.
- Humphreys, W. 1994. Archaeological Survey of Shipwreck Walk. in *Bar Safe: A History of Newcastle Harbour and Its Entrance*, Terry Callen. Newcastle Region Maritime Museum: Newcastle, Australia.
- Hunter, L. C. 1993. *Steamboats of the Western Rivers: An Economic and Technological History*. Dover Publications Inc.: New York, United States.
- Hurd, A. 1922. *The Triumph of the Tramp Ship*. Cassell and Company, Ltd.: London, United Kingdom.
- Hutchins, J. G. B. 1974. History and Development of the Shipbuilding Industry in the United States. in *The Shipbuilding Business in the United States of America, Volume 1*, (ed.) Jr. F. G. Fassett. Macdonald and Jane's: New York, United States.



- Hutchinson, G. 1984. A Plank Fragment From a Boat-Find From the River Usk at Newport. *The International Journal of Nautical Archaeology and Underwater Exploration* 13(1): 27-32.
- . 1998. *Medieval Ships and Shipping*. Leicester University Press: Leicester, United Kingdom.
- Illsley, J. S. and Roberts, O. T. P. 1979. An 18th Century Boat in Lake Padarn, North Wales. *The International Journal of Nautical Archaeology and Underwater Exploration* 8(1): 45-67.
- Ingram-Brown, L. 1982. *Nautical Magazine*. Vol. 227(5).
- Jackson, G. 1971. Marine Insurance Frauds in Scotland 1751-1821: Cases of Deliberate Shipwreck Tried in the Scottish Court of Admiralty. *The Mariner's Mirror* 57(3): 307-22.
- Jackson, P. 1990. *Quail Island: a Link With the Past*. The Department of Conservation: Christchurch, New Zealand.
- Jacques, M. 1997. *Dive Tasmania: Including Bass Strait and Macquarie Island*. Gemini Publications: Hobart, Australia.
- Janes Publishing Company. 1997. *Jane's Fighting Ships of World War 1*. Tiger Books International: London, United Kingdom.
- . 1998. *Jane's Fighting Ships of World War 2*. Tiger Books International: London, United Kingdom.
- Jeffery, W. 1979. Santiago. *Annual Report of the Society for Underwater Historical Research*: 24.
- . 1981. W.A. Wrecksite Training. *Annual Report of the Society for Underwater Historical Research*: 54-56.
- . 1983. The Development of Maritime Archaeology in South Australia. in *Proceedings of the Second Southern Hemisphere Conference on Maritime Archaeology*, (eds.) William Jeffery and J. Amess. South Australian Department of Environment and Planning and the Commonwealth Department of Home Affairs and Environment: Adelaide, Australia, pp. 83-92 .
- . 1989. Research into Australian-Built Coastal Vessels Wrecked in South Australia, 1840 - 1900. *The Bulletin of the Australian Institute for Maritime Archaeology* 13(2): 51-56.
- . 1992. Maritime Archaeological Investigations into Australian-Built Vessels Wrecked in South Australia. *The International Journal of Nautical Archaeology and Underwater Exploration* 21(3): 209-19.
- . 1995. Historic Shipwrecks: Current Work on the Santiago and Solway Shipwrecks. *State Heritage Newsletter* 6.
- Jenkins, N. 1980. *Boat Beneath the Pyramids*. Thames and Hudson Limited: New York, United States.

- Jervis, R. 1995. Navies, Politics, and Political Science. in *Doing Naval History: Essays Toward Improvement*, (ed.) John B. Hattendorf. Naval War College Press: Newport, United States, pp. 41-52.
- Johnson, M. 2000. *Archaeological Theory: An Introduction*. Blackwell Publishers: Oxford, United Kingdom.
- Johnston, P. F. 1996. The End of the Age of Sail: Merchant Shipping in the Nineteenth Century. in *Ships and Shipwrecks of the Americas: A History Based on Underwater Archaeology*, (ed.) George F. Bass. Thames and Hudson: London, United Kingdom, pp. 231-50.
- . 1997. Cornwallis Cave Wreck. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 110-111.
- Johnstone, P. 1974. *The Archaeology of Ships*. The Bodley Head: London, United Kingdom.
- Jones, A. G. E. n.d. *Ships Employed in the South Seas Trade 1775-1859, Volume 2*. Roebuck Books: Burwood, Victoria.
- Jones, D. 1995. *Egyptian Bookshelf: Boats*. University of Texas Press: London, United Kingdom.
- Jones, D. 1999. *North Arm Ships' Graveyard, Garden Island, Port Adelaide, South Australia*. Unpublished Wreck Inspection Report: Adelaide.
- Jones, F. I. W. 1990. The German Challenge to British Shipping 1885-1914: Its Magnitude, Nature and Impact in China. *The Mariner's Mirror* 76: 151-67.
- Jordan, D. J. 1995. *East Coast Shipwrecks: A Thematic Historical Survey*. Heritage Victoria: Victoria, Australia.
- Jordan, K. 1997. *The Pier 35 Wreck*. Maritime Heritage Unit, Heritage Victoria, Unpublished internal report.
- Jose, A. W. 1913. *History of Australasia*. Angus and Robertson: Sydney, Australia.
- Kadry, A. 1986. The Solar Boat of Cheops. *The International Journal of Nautical Archaeology and Underwater Exploration* 15(2): 123-31.
- Kasper, W. 1980. Technological Change and Economic Growth. in *Technological Change in Australia, Volume 4: Selected Papers on Technological Change*, Committee of Inquiry into Technological Change in Australia. Australian Government Publishing Service: Canberra, Australia, pp. 237-60.
- Kaukiainen, Y. 1995. Tons and Tonnages: Ship Measurement and Shipping Statistics, C.1870-1980. *International Journal of Maritime History* 7(1): 29-56.
- Kemp, P. K., (ed.). 1988a. *The Oxford Companion to Ships and the Sea*. Oxford University Press: Oxford, United Kingdom.
- . 1988b. *The Campaign of the Spanish Armada*. Phaidon Press Limited: Oxford,

United Kingdom.

- Kenderdine, S. 1992. When the River Runs Clear: Interpretation of the River Murray Cultural Landscape. in *Muddy Waters: Proceedings of the First Conference on the Submerged and Terrestrial Archaeology of Historic Shipping on the River Murray, Echuca September 21-23 1992*, (eds.) Sarah Kenderdine and William Jeffery. State Heritage Branch, Department of Environment and Natural Resources: Adelaide, Australia, Chapter 12, pp. 1-9.
- . 1994b. Revelations About River Boats and 'Rotten Rows': a Guide to Wreck Sites of the River Murray. *Bulletin of the Australian Institute for Maritime Archaeology* 18(1): 17-28.
- . 1995a. *Historic Shipping on the River Murray: A Guide to the Terrestrial and Submerged Archaeological Sites in South Australia*. State Heritage Branch, Department of Environment and Land Management: Adelaide, Australia.
- . 1995b. *Shipwrecks 1656-1942: A Guide to Historic Wreck Sites of Perth*. WA Maritime Museum: Fremantle, Western Australia.
- Kennedy, G. C. 1994. Great Britain's Maritime Strength and the British Mercantile Marine, 1922-1935. *The Mariner's Mirror* 80(1): 66-76.
- Kentish, P. 1995. *Stabilisation of Santiago*. University of South Australia: Report No. MET 1291, Part 1.
- Kerr, G. 1993. *Craft and Craftsmen of Australian Fishing 1870-1970: An Illustrated Oral History*. Mains'l Books: Portland, Australia.
- . 1998. *The Tasmanian Trading Ketch: An Illustrated Oral History*. 3rd ed. Mains'l Books: Portland, Australia.
- Kerr, G. and McDermott, H. 1999. *The Huon Pine Story: A History of Harvest and Use of a Unique Timber*. Mainsail Books: Portland, Victoria, Australia.
- Kimpton, G. and Henderson, G. 1991. The Last Voyage of the *Day Dawn* Wreck. *The Bulletin of the Australian Institute for Maritime Archaeology* 15(2): 25-28.
- Kok, A. n.d. *A Pictorial History of Straban: The Story of Straban and the Macquarie Harbour Region of West Coast Tasmania*. Hindsight: Hobart, Australia.
- La Roche, D. 1987. The Small Boat Finds at the "Musée Da La Civilisation" in Quebec City. *Underwater Archaeology Proceedings From the Society for Historical Archaeology Conference, Savannah, Georgia*, pp. 108-13.
- Landy, P. 1982. The Cairns Dredge TSS 'Trinity Bay'. *Bulletin of the Historical Society, Cairns, North Queensland* 275 (November): 1-2.
- Langeluddecke, C. 1998. Jervis Basin, Port River Maritime Site: The Student Invasion. *Dig-It: Newsletter of the Flinders University Archaeology Society* 4(June): 12.
- Langley, S. B. M. 1997. Mallows Bay. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United

Kingdom, pp. 257-58.

- Launceston Examiner*. 1882. State Library of Tasmania, Hobart, Tasmania.
- Lawes, D. 1987. More Hulks. *Australian Sea Heritage* 14(Spring): 3.
- Lawson, E. 1986. Egeria: The Nineteenth Century Canadian Built Sailing Ship at Port Stanley. *Falkland Islands Journal*: 15-19.
- Learmouth, N. F. 1960. *The Story of a Port: Portland, Victoria*. The Portland Harbor Trust: Melbourne, Australia.
- LeLeu, L. W. 1977. My Life Amongst the Ketches As a Shipwright 1912-1963 Part 3. *Portonian* 5(4): 8-11.
- Lellman, K. V. 1933. The Hulks at Stanley Harbour. *Sea Breezes* 16: 270-271.
- Lemee, C. 1997. A Ship Cemetery on the B&W Site in Christianshavn. *Maritime Archaeology Newsletter From Roskilde Denmark* 9(December): 29-34.
- Lemee, C., Schiellerup, P., and Gothche, M. 1996. Ships and Shipyards in Copenhagen. *Maritime Archaeology Newsletter From Roskilde* 7(December): 16-20.
- Lenihan, D. J. 1983. Rethinking Shipwreck Archaeology: A History of Ideas and Considerations for New Directions. in *Shipwreck Anthropology*, (ed.) Richard A. Gould. University of New Mexico Press: Albuquerque, United States, pp. 37-89.
- . 1998. From Pearl to Bikini: The Underwater Archaeology of World War II in the Pacific. in *Excavating Ships of War*, (ed.) Mensun Bound. Anthony Nelson: Oswestry, England, pp. 294-302.
- Lenihan, D. J. and L. E. Murphy. 1998. Considerations for Research Designs in Shipwreck Archaeology. in *Maritime Archaeology: A Reader of Substantive and Theoretical Contributions*, (eds.) Lawrence Babits and Hans Van Tilburg. Plenum Press: New York, United States, pp. 233-39.
- Leone, M. P. 1983. Land and Water, Urban Life, and Boats: Underwater Reconnaissance in the Patuxent River on Chesapeake Bay. in *Shipwreck Anthropology*, (ed.) Richard A. Gould. University of New Mexico Press: Albuquerque, United States, pp. 173-88.
- Lester, S. 1983. Notes and News From Tasmania. *The Bulletin of the Australian Institute for Maritime Archaeology* 7(1): 25-29.
- Lewczak, C. 1999. *Site Report on the Grace Darling*. Unpublished Wreck Inspection Report: Adelaide.
- Lewczak, C., Coombe, R., McGrade, P., and Horne, K. 1999a. *Site Report on the George Renee*. Unpublished JCU Wreck Inspection Report: Townsville.
- . 1999b. *Site Report on the Moltke*. Unpublished JCU Fieldwork Report: Townsville.

- Lewis, T. 1992. *Wrecks in Darwin Waters*. Turton and Armstrong: Sydney, Australia.
- Linder, E. and Raban, A. 1975. *Marine Archaeology*. Cassell and Company, Limited: London, United Kingdom.
- Lipke, P. 1984. *The Royal Ship of Cheops*. British Archaeological Reports, International Series 225: Oxford, United Kingdom.
- . 1985. Retrospective on the Royal Ship of Cheops. in *Sewn Plank Boats*, (eds.) Sean McGrail and E. Kently. British Archaeological Reports, International Series 275: Oxford, United Kingdom.
- Lloyd's of London. 1938. *Lloyd's Calendar: 1938*. Lloyd's of London: London, United Kingdom.
- . 1959. *Lloyd's Calendar: 1959*. Lloyd's of London: London, United Kingdom.
- . 1965. *Lloyd's Calendar: 1965*. Lloyd's of London: London, United Kingdom.
- . 1973. *Lloyd's Calendar: 1973*. Lloyd's of London: London, United Kingdom.
- . 1981. *Lloyd's Nautical Year Book: 1981*. Lloyd's of London: London, United Kingdom.
- . 1991. *Lloyd's Nautical Year Book: 1991*. Lloyd's of London Press: London, United Kingdom.
- Lloyd's Register of Shipping*, Mortlock Library of South Australiana, Adelaide, South Australia.
- Loney, J. K. 1971. *Victorian Shipwrecks: All Wrecks in Victorian Waters and Bass Strait, Including King Island and the Kent Group*. The Hawthorn Press: Melbourne, Australia.
- . 1980. *Jack Loney's Maritime Australia: Short Tales of Ships and Men*. Quadricolor: Melbourne, Australia.
- . 1982. *Australian Shipwrecks, Volume 3: 1871 to 1900*. List Publishing: Geelong, Australia.
- . 1987. *Australian Shipwrecks, Volume 4: 1901 to 1996*. Marine History Publications: Portarlington, Australia.
- . 1991. *Australian Shipwrecks Update Volume 5: 1622-1990*. Marine History Publications: Portarlington, Australia.
- . 1993a. *Wrecks on the South Australian Coast*. Lonestone Press: Melbourne, Australia.
- . 1993b. *Wrecks on the Queensland Coast, 1791 - 1992: Includes Great Barrier Reef, Coral Sea, Torres Strait, Gulf of Carpentaria*. Lonestone Press: Yarram, Australia.
- . 1994. *Wrecks on the Western Australian Coast*. Lonestone Press: Yarram, Australia.

- Lords Commissioners of the Admiralty. 1932. *Manual of Seamanship: Volume 2, 1932*. His Majesty's Stationery Office: London, United Kingdom.
- Lorimer, M. 1982. Underwater Archaeological Research Group (U.A.R.G.). *The Bulletin of the Australian Institute for Maritime Archaeology* 6: 84.
- . 1988a. A Data Dictionary for Shipwreck Databases. *The Bulletin of the Australian Institute for Maritime Archaeology* 12(2): 33-36.
- . 1988b. The Underwater Cultural Resources of NSW Steamship Wrecks. in *Iron Ships and Steam Shipwrecks: Papers From the First Australian Seminar on the Management of Iron Vessels and Steam Shipwrecks*, (ed.) Michael McCarthy. Western Australian Maritime Museum: Fremantle, Australia, pp. 39-40.
- Louis, L. J. and Turner, I. 1974. *The Depression of the 1930s*. Cassell Australia Limited: North Melbourne, Australia.
- Low, S. H. and Throckmorton, P. 1977. The First and Last Voyage of the *St. Mary*. *Sea History* 9(Fall): 6-9.
- Mackay, M. 1999. *Lady of the Lake: The TSS Earnslaw Story*. Published by Malcolm Mackay: Queenstown, New Zealand.
- MacLeod, I. D. 1992. Report on the Corrosion of Iron Shipwrecks in South Australia: With Particular Reference to the River Murray. in *Muddy Waters: Proceedings of the First Conference on the Submerged and Terrestrial Archaeology of Historic Shipping on the River Murray, Echuca September 21-23 1992*, (eds.) Sarah Kenderdine and William Jeffery. State Heritage Branch, Department of Environment and Natural Resources: Adelaide, Australia, pp. Chapter 10, pps 1-14.
- Mak, J. and Walton, G. M. 1973. The Persistence of Old Techniques: The Case of Flatboats. *The Journal of Economic History* 33(2): 444-52.
- Marfleet, B. 1988. Iron and Steam Shipwrecks in South Australia. in *Iron Ships and Steam Shipwrecks: Papers From the First Australian Seminar on the Management of Iron Vessels and Steam Shipwrecks*, (ed.) Michael McCarthy. Western Australian Maritime Museum: Fremantle, Australia, pp. 55-58.
- Marine Archaeological Society, The Shiplovers' Society, and Newcastle Region Maritime Museum. 1991. *The Macquarie Pier and Shipwreck Walk*. Unpublished Manuscript held by the Newcastle Library: Newcastle, Australia.
- Maritime Archaeological Association of Queensland. n.d. *The Maida Barque*. Unpublished Report: Brisbane, Australia.
- Maritime Archaeological Association of Queensland Inc., Brisbane City Council Local History Grants, and Queensland Maritime Museum. 1997. *The Moreton Island Hulks*. Rocklea Printing: Brisbane, Australia.
- Marsden, P. 1972. Blackfriars Wreck 3: A Preliminary Note. *The International Journal of Nautical Archaeology and Underwater Exploration* 1: 130-132.
- . 1974. The County Hall Ship, London. *The International Journal of Nautical*

- Archaeology and Underwater Exploration* 3(1): 55-65.
- . 1976. A Boat of the Roman Period Found at Bruges, Belgium, in 1899, and Related Types. *The International Journal of Nautical Archaeology and Underwater Exploration* 5(1): 23-55.
- . 1994. *Ships of the Port of London: First to Eleventh Centuries*. English Heritage: London, United Kingdom.
- . 1996. *Ships of the Port of London: Twelfth to Seventeenth Centuries*. English Heritage: London, United Kingdom.
- Marsden, P., Branch, N., Evans, J., Gale, R., Goodburn, D., Juggins, S., McGrail, S., Rackham, J., Tyers, I., Vaughan, D., and Whipp, D. 1989. A Late Saxon Logboat From Clapton, London Borough of Hackney. *The International Journal of Nautical Archaeology and Underwater Exploration* 18(2): 89-111.
- Marshall, C., (ed.). 1997. *The Encyclopaedia of Ships: The History and Specifications of Over 1200 Ships*. Blitz Editions: Leicester, United Kingdom.
- Marshall, W. and Miners, R. 1979. The Wreck of Stones. *The Bulletin of the Australian Institute for Maritime Archaeology* 2(1).
- . 1986. The Wreck of Stones. *The Bulletin of the Australian Institute for Maritime Archaeology* 10(1): 12-13.
- Martin, C. 1987a. Swans of the Sea God. in *History From Beneath the Sea: Shipwrecks and Archaeology*, (ed.) Peter Throckmorton. RD Press: Melbourne, Australia, pp. 122-28.
- . 1987b. The Viking World. in *History From Beneath the Sea: Shipwrecks and Archaeology*, (ed.) Peter Throckmorton. RD Press: Melbourne, Australia, pp. 128-33.
- . 1987c. North Sea Traders. in *History From Beneath the Sea: Shipwrecks and Archaeology*, (ed.) Peter Throckmorton. RD Press: Melbourne, Australia, pp. 134-39.
- . 2001. De-Particularizing the Particular: Approaches to the Investigation of Well-Documented Post-Medieval Shipwrecks. *World Archaeology* 32(3): 383-99.
- Martin, T. 1987. Hulks. *Australian Sea Heritage* 14(Spring): 2.
- Mathews, D. 1984. *Dredging at Port Adelaide 1836 to 1908*. Unpublished Bachelor of Engineering Thesis, University of Adelaide: Adelaide, South Australia.
- Matic, A. 1999. *Garden Island Ships Graveyard Report*. Unpublished Wreck Inspection Report: Adelaide, Australia.
- Matthews, F. C. 1987a. *American Merchant Ships 1850-1900: Series 1*. Dover Publications Inc.: New York, United States.
- . 1987b. *American Merchant Ships 1850-1900: Series 2*. Dover Publications: New

York, United States.

- Matthews, S. 1998. *The North Arm Ships' Graveyard, Port Adelaide, South Australia: Some Historical Perspectives of the Ships and Associated Maritime Activity and an Examination of the Artefact Assemblage*. Unpublished Archaeology Honours Thesis, Flinders University: Adelaide, Australia.
- Mattox, W. C. 1970. *Building the Emergency Fleet*. Macdonald and Jane's: New York, United States.
- May, S. 1988a. Management of Iron and Steamship Wrecks in Queensland Waters. in *Iron Ships and Steam Shipwrecks: Papers From the First Australian Seminar on the Management of Iron Vessels and Steam Shipwrecks*, (ed.) Michael McCarthy. Western Australian Maritime Museum: Fremantle, Australia, pp. 19-20.
- . 1988b. The Iron and Steam Shipwreck Resources of Queensland. in *Iron Ships and Steam Shipwrecks: Papers From the First Australian Seminar on the Management of Iron Vessels and Steam Shipwrecks*, (ed.) Michael McCarthy. Western Australian Maritime Museum: Fremantle, Australia, pp. 26-38.
- Mayhew, D. R. 1974. The Defense. Search and Recovery, 1972-73. *The International Journal of Nautical Archaeology and Underwater Exploration* 3(2): 312-13.
- McCarthy, M. 1979a. The Jervis Bay Study. *The Bulletin of the Australian Institute for Maritime Archaeology* 2(1).
- . 1979b. *Jervis Bay Shipwrecks*. Department of Maritime Archaeology, Western Australian Museum: Perth, Australia.
- . 1980a. *Excavation of the Barque Day Dawn: The Excavation and Identification of the Wreck of an Ex-American Whaler in Cockburn Sound by the Maritime Archaeological Association of Western Australia 1976-1977*. Western Australian Museum: Perth, Australia.
- . 1980b. Industrial Development and the Jervis Bay Wrecks. *Australian Maritime Archaeology Newsletter* 4: 28-32.
- . 1983a. Salvage and Materials. *The Bulletin of the Australian Institute for Maritime Archaeology* 7(1): 1-24.
- . 1983b. Shipwrecks in Jervis Bay. *Records of the Western Australian Museum* 10(4): 335-73.
- . 1983c. Salvage Archaeology: A Case Study. in *Proceedings of the Second Southern Hemisphere Conference on Maritime Archaeology*, (eds.) William Jeffery and J. Amess. South Australian Department of Environment and Planning and the Commonwealth Department of Home Affairs and Environment: Adelaide, Australia, pp. 283-91.
- . 1988a. Introduction. in *Iron Ships and Steam Shipwrecks: Papers From the First Australian Seminar on the Management of Iron Vessels and Steam Shipwrecks*, (ed.) Michael McCarthy. Western Australian Maritime Museum: Fremantle, Australia, pp. 7-8.



- . 1988b. The Management of Iron and Steam Shipwreck Sites. in *Iron Ships and Steam Shipwrecks: Papers From the First Australian Seminar on the Management of Iron Vessels and Steam Shipwrecks*, (ed.) Michael McCarthy. Western Australian Maritime Museum: Fremantle, Australia, pp. 21-23 .
- . 1996. *SS Xantho: Towards a New Perspective. An Integrated Approach to the Maritime Archaeology and Conservation of an Iron Steamship Wreck*. Unpublished PhD Thesis, James Cook University: Townsville, Australia.
- . 1997a. *The "Black Cats": Report into the Feasibility of Locating, Raising and Conserving One of the Four Catalina Flying Boats Scuttled Off Rottneest Island in the Years 1945-1946*. Department of Maritime Archaeology, WA Maritime Museum Report No. 125: Fremantle, Australia.
- . 1997b. Day Dawn. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 124.
- . 1998. Australian Maritime Archaeology: Changes, Their Antecedents and the Path Ahead. *Australian Archaeology* 47: 33-38.
- . 2000. *Iron and Steamship Archaeology: Success and Failure on the SS Xantho*. Kluwer Academic/Plenum Publishers: New York, United States.
- McConnell, A. and Clarke, L. 1996. *Strahan Foreshore Historic Cultural Heritage Inventory and Assessment Project: Project 10A of the Mt. Lyell Remediation, Research and Demonstration Program*. Report Prepared for the Tasmanian Department of Environment and Land Management and the Office of the Supervising Scientist, Canberra: Hobart, Australia.
- McGhee, R. 1967. The Long Boom, 1860-1890. in *Essays in Economic History of Australia: 1788-1939*, (ed.) James Griffith. Jacaranda Press Pty. Ltd.: Brisbane, Australia, pp. 135-85.
- McGrail, S. 1989. Prehistoric Water Transport in N. W. Europe. *The Mariner's Mirror* 75(4): 297-312.
- . 1998. *Ancient Boats in North-West Europe: The Archaeology of Water Transport to AD 1500*. Addison Wesley Longman Limited: New York, United States.
- McIlroy, J. 1986. Bathers Bay Whaling Station, Fremantle, Western Australia. *Australian Historical Archaeology* 4: 43-40.
- McKauge, G. 2000. *The Youth Training Ship "Triton"*. Unpublished Manuscript held by the Cairns Historical Society: Cairns, Australia.
- McKee, E. 1976. Traditional British Boat Building Methods. *The Mariner's Mirror* 62(1): 3-14.
- McKellar, N. L. 1961. Huddart Parker Hulks. *The Log*: 118.
- . 1968. The Adelaide Steamship Co., Ltd. *The Log*: 87-88.
- McKinnon, R. 1993. *Shipwreck Sites of Kangaroo Island*. State Heritage Branch, Department

of Environment and Land Management: Adelaide, South Australia.

- McLeod, G. R. 1974. History Along The Waterways: the Abandoned Hulks of the Brisbane River and Moreton Bay. *Proceedings of the Royal Historical Society of Queensland* 9(5): 19-29.
- Meaney, A. 1964. *A Gazetteer of Early Anglo-Saxon Burial Sites*. George Allen and Unwin Limited: London, United Kingdom.
- Meiggs, R. 1960. *Roman Ostia*. Oxford University Press: Oxford, United Kingdom.
- Mellefont, J. 2000. Heirlooms and Tea Towels: Views of Ships' Gender in the Modern Merchant Museum. *The Great Circle* 22(1): 5-16.
- Merrifield, R. 1983. *London: City of the Romans*. B T Batsford Ltd.: London, United Kingdom.
- Merriman, A. M. 1997. *The Cypress Landing Shipwreck of Choconinity Bay: A North Carolina Sail Flat, An Archaeological and Historical Study*. Program in Maritime History and Nautical Archaeology, East Carolina University Research Report No.9: Greenville, United States.
- Miles, P. 2001. *Lucinda: Little Ship of State*. Australian National Maritime Museum: Sydney, Australia.
- Millar, W. J. 1881. On the Rise and Progress of Steam Navigation. in *Lectures on Naval Architecture and Engineering, With Catalogue of the Exhibition*, Glasgow Naval and Marine Engineering Exhibition 1880-1881. William Collins, Sons and Company (Limited): London and Glasgow, United Kingdom, pp. 129-46.
- Miller, D. 1987. *Material Culture and Mass Consumption*. Basil Blackwell: London, United Kingdom.
- Miller, P. 1988. Riddle of the Pyramid Boats. *National Geographic* 173(4): 534-50.
- Milne, G., McKewan, C., and Goodburn, D. 1998. *Nautical Archaeology on the Foreshore: Hulk Recording on the Medway*. Royal Commission on the Historical Monuments of England: London, United Kingdom.
- Mokyr, J. 1990. *The Lever of Riches: Technological Creativity and Economic Progress*. Oxford University Press: New York, United States.
- Moore, A. 1970. *Last Days of Mast and Sail: An Essay in Nautical Comparative Anatomy*. Clarendon Press: Oxford, United Kingdom.
- Moore, J. 1995a. *Kingston Inner Harbour Survey: A Preliminary Archaeological Survey of Submerged and Partially Submerged Vessels (BbGc-29 to BbGc-42) in the Inner Harbour, Kingston, Ontario*. Report for the Marine Museum of the Great Lakes at Kingston: Kingston, Canada.
- . 1995b. The Boneyard Below the Bridge. *Freshwater: A Journal of the Marine Museum of the Great Lakes of Kingston* 11(1-4): 3-28.

- Moran, V. 1997. Some Management Options for the Perched Hull *Day Dawn*. *The Bulletin of the Australian Institute for Maritime Archaeology* 21(1&2): 129-32.
- Morley, C. 1995. *The Glandore Story: From Hulk to Haven*. Glandore Community Centre: Adelaide, Australia.
- Morris, R. 1999. The 1928 Marine Cooks' Strike and the Origin of the Transport Workers' Act. *The Great Circle* 21(2): 109-20.
- Morrissey, S. 1967. The Pastoral Economy, 1821-1850. in *Essays in Economic History of Australia: 1788-1939*, (ed.) James Griffith. Jacaranda Press Pty. Ltd.: Brisbane, Queensland, pp. 51-112.
- Moss, J. 1985. *Sound of Trumpets: History of the Labour Movement in South Australia*. Wakefield Press: Netley, Australia.
- Muckelroy, K. W. 1978. *Maritime Archaeology*. Cambridge University Press: London, United Kingdom.
- . 1998a. Introducing Maritime Archaeology. in *Maritime Archaeology: A Reader of Substantive and Theoretical Contributions*, (eds.) Lawrence Babits and Hans Van Tilburg. Plenum Press: New York, United States, pp. 23-35.
- . 1998b. The Archaeology of Shipwrecks. in *Maritime Archaeology: A Reader of Substantive and Theoretical Contributions*, (eds.) Lawrence Babits and Hans Van Tilburg. Plenum Press: New York, United States, pp. 267-90.
- Mudie, I. 1965. *Riverboats*. Sun Books: Melbourne, Australia.
- Muller-Wille, M. 1974. Boat-Graves in Northern Europe. *The International Journal of Nautical Archaeology and Underwater Exploration* 3(2): 187-204.
- Mullins, J. 1998. Diving the HMAS Swan. *DIVE Log Australia* February: 30-31.
- Murphy, L. E. 1983. Shipwrecks As a Data Base for Human Behavioural Studies. in *Shipwreck Anthropology*, (ed.) Richard A. Gould. University of New Mexico Press: Albuquerque, United States, pp. 65-90 .
- Musee De La Civilisation. 1985. *La Barque*. Musee De La Civilisation: Quebec, Canada.
- Musson, A. E. and Robinson, E. 1959. The Early Growth of Steam Power. *The Economic History Review* 11(3): 418-40.
- Nash, D. 1999. *Sunbeam*. Unpublished Wreck Inspection Report, Flinders University: Adelaide, Australia.
- Nash, M. 1988a. *A Maritime Archaeological Survey of South East Tasmania: Cape Raoul to South East Cape*. Occasional Paper No.17, Department of Lands, Parks and Wildlife: Hobart, Australia.
- . 1990. *A Survey of Shipwrecks in Tasmanian Waters*. Occasional Paper No.24, Department of Parks, Wildlife and Heritage: Hobart, Australia.

- . 1992. The *Sydney Cove* Historic Shipwreck (1797). *Australian Sea Heritage* 32: 11-13.
- . 1996. *Cargo for the Colony: The Wreck of the Merchant Ship Sydney Cove*. Braxus Press: Sydney, Australia.
- National Trust. *File Number 6/0310*, Darwin, NT.
- . *File Number 6/0319*, Darwin, NT.
- . *File Number 6/0368*, Darwin, NT.
- . *File Number 7/016*, Darwin, NT.
- . *File Number 9/113*, Darwin, NT.
- Naylor, G. A. 1974. *Shipwrecks Along the Southern Coast*. Wedneil: Newport, Australia.
- . 1979. *The Silent Fleet*. Wedneil: Newport, Victoria.
- News*. 1931 – 1949. Mortlock Library of South Australiana, Adelaide, South Australia.
- New South Wales Heritage Office. 1992. *Unidentified Hopper Barge, Clarke Island: Wreck Inspection Report*. New South Wales Heritage Office: Sydney, Australia.
- . 1994. *Underwater Heritage: Principles and Guidelines*. New South Wales Heritage Office: Sydney, Australia.
- . 1996. *Shipwreck Atlas of New South Wales*. 3rd ed. New South Wales Heritage Office: Sydney, Australia.
- . 2001. *Shipwrecks: Homebush Bay*. *Online Acrobat File Available From: <http://www.heritage.nsw.gov.au/pub/free/docs/homebush.pdf>*. New South Wales Heritage Office: Sydney, Australia.
- Nicholson, H. P. 1979. A Master Mariner's Meanderings. in *Tall True Tales of the Sea: by Old Shellbacks*, Investigator Press: Adelaide, Australia, pp. 20-28 .
- Northern Territory Archives. *Oral History Transcript No. 598*, Darwin, NT.
- . *Oral History Transcript No. 666*, Darwin, NT.
- . *Oral History Transcript No. 907*, Darwin, NT.
- Norty, J. 2001. Environmental Considerations of Artificial Reefs. *Marine Life Society of South Australia Newsletter* 276: 9-12.
- Nutley, D. and Smith, T. 1999. *The Maritime Archaeology of Myall Lakes/Tea Gardens: Area Conservation Plan*. New South Wales Heritage Office: Sydney, Australia.
- O'Keefe, M. 1999. The Shipwreck Under the City: The *Inconstant*, Wellington, New Zealand. *The Bulletin of the Australian Institute for Maritime Archaeology* 23: 121-25.
- . 2001. Looking at the Ship Under the City: The *Inconstant* and the ICOMOS

- Cultural Tourism Charter. *The Bulletin of the Australian Institute for Maritime Archaeology* 25: 109-11.
- O'May, H. 1985. *Wrecks in Tasmanian Waters 1797-1950*. Government Printer: Hobart, Australia.
- O'Reilly, R. 1999. *An Assessment of Australian Built Wooden Sailing Vessels (Constructed Between 1850 - 1899) Operating The South Australian Intrastate Trade: Methods and Materials*. Unpublished Archaeology Honours Thesis, Flinders University: Adelaide, South Australia.
- Ojala, J. 1997. Productivity and Technological Change in Eighteenth and Nineteenth Century Sea Transport: A Case Study of Sailing Ship Efficiency in Kokkola, Finland, 1721-1913. *International Journal of Maritime History* 9(1): 93-123.
- Orme, Z. K. 1988. Shipbuilding in Northern Tasmania. *The Bulletin of the Australian Institute for Maritime Archaeology* 12(2): 27-32.
- Oxley, I. 1998. *The Environment of Historic Shipwreck Sites: A Review of the Preservation of Materials, Site Formation and Site Environmental Assessment*. Unpublished Master of Science Thesis, University of St. Andrews: St. Andrews, United Kingdom.
- Paasch, H. 1978. *From Keel to Truck*. Eckardt and Messtorff: Hamburg, Germany.
- . 1997. *Paasch's Illustrated Marine Dictionary*. Conway Maritime Press: London, United Kingdom.
- Paine, L. 2000. *Down East: A Maritime History of Maine*. Tilbury House Publishers: Gardiner, United States.
- Palmer, M. 1971. *Ships and Shipping*. B.T. Batsford Ltd.: London, United Kingdom.
- Parker, J. 1980. The Story of the Ship Niantic: Invincible Amphibian. *The American West* 17(6): 48-53.
- Parkinson, J. R. 1960. *The Economics of Shipbuilding in the United Kingdom*. Cambridge University Press: Cambridge, United Kingdom.
- Parry, S. and McGrail, S. 1989. The Tredunnoc Boat. *The International Journal of Nautical Archaeology and Underwater Exploration* 18(1): 43-49.
- Parsons, R. H. 1975. *Sail in the South*. Rigby: Adelaide, Australia.
- . 1978. *The Navy in South Australia*. Published by the Author: Adelaide, Australia.
- . 1981a. *Australian Coastal Passenger Ships*. Published by the Author: Adelaide, Australia.
- . 1981b. *Fremantle Register of Ships Before 1900*. Published by the Author: Adelaide, Australia.
- . 1981c. *Port Lincoln Shipping*. Published by the Author: Adelaide, Australia.

- . 1982a. *Australian Shipowners and the Fleets: Volume Seven, Sydney Enrolments 1841-1849*. Published by the Author: Adelaide, Australia.
- . 1982b. *A Century of Wrecks of Steamships in NSW 1836-1936*. Published by the Author: Adelaide, Australia.
- . 1982c. *Ships Registered at Newcastle NSW Before 1900*. Published by the Author: Adelaide, Australia.
- . 1982d. *The Black Diamond Line of Colliers*. Published by the Author: Adelaide, Australia.
- . 1983a. *Ships of Australian and New Zealand Before 1850: Part One, A - J*. Published by the Author: Adelaide, Australia.
- . 1983b. *Ships of Australian and New Zealand Before 1850: Part Two, K-Z*. Published by the Author: Adelaide, Australia.
- . 1983c. *Steam Tugs in South Australia*. Published by the Author: Adelaide, Australia.
- . 1983d. *Ketches of South Australia*. Published by the Author: Adelaide, Australia.
- . 1984a. *Ships of Yorke Peninsula*. Railmac Publications: Elizabeth, Australia.
- . 1984b. *Australian Shipowners and Their Fleets: Volume Six, Sydney Enrolments 1830-1840*. Published by the Author: Adelaide, Australia.
- . 1984c. *The Port of Marlborough*. Published by the Author: Adelaide, Australia.
- . 1984d. *Cavalcade of Australian Coastal Passenger Steamers*. Kitcher Press Pty. Ltd.: Beverly, Australia.
- . 1985a. *Shipwrecks in South Australia Book Two: 1876-1899*. Published by the Author: Adelaide, Australia.
- . 1985b. *Australian Shipowners and Their Fleets: Volume Three, Newcastle Enrolments Part 1*. Published by the Author: Adelaide, Australia.
- . 1985c. *Australian Shipowners and Their Fleets: Volume Five, Sydney Enrolments 1800-1840*. Published by the Author: Adelaide, Australia.
- . 1986a. *Shipwrecks in South Australia Book One: 1836-1875*. Published by the Author: Adelaide, Australia.
- . 1986b. *Southern Passages: A Maritime History of South Australia*. Wakefield Press: Adelaide, Australia.
- . 1986c. *The Adelaide Line: A History of the Shipowning Operations of the Adelaide Steamship Co. Ltd.* Published by the Author: Adelaide, Australia.
- . 1986d. *Australian Shipowners and Their Fleets: Volume One, Northern Rivers of New South Wales*. Published by the Author: Adelaide, Australia.

- . 1986e. *Australian Shipowners and Their Fleets: Volume Two, Northern Rivers of New South Wales*. Published by the Author: Adelaide, Australia.
- . 1987a. *Australian Shipowners and Their Fleets: Volume Four, Newcastle Enrolments Part 2*. Published by the Author: Adelaide, Australia.
- . 1987b. *Australian Shipowners and Their Fleets: Volume Eight, Melbourne Enrolments 1838-1859 Part 1*. Published by the Author: Adelaide, Australia.
- . 1989a. *Australian Shipowners and Their Fleets: Volume Nine, Melbourne Enrolments 1839-1859 Part 2*. Published by the Author: Adelaide, Australia.
- . 1989b. *Steamships in Colonial Western Australia*. Published by the Author: Adelaide, Australia.
- . 1990. *A Pioneer Australian Steamship Company: A History of the Hunter's River S.N.Co and the Australasian Steam Navigation Company*. Published by the Author: Adelaide, Australia.
- . 1991a. *Australian Shipowners and Their Fleets: Volume Ten, Melbourne Enrolments, 1839-1859, Part 3*. Published by the Author: Adelaide, Australia.
- . 1991b. *Steamships to the Illawarra: the Development of the Steam Ship Service South to Sydney*. Published by the Author: Adelaide, Australia.
- . 1992a. *Australian Shipowners and Their Fleets: Volume Eleven, Launceston Enrolments 1830-1859*. Published by the Author: Adelaide, Australia.
- . 1992b. *The Ships of Burns, Philp and Company*. Published by the Author: Adelaide, Australia.
- . 1992c. *Australian Shipowners and Their Fleets: Volume Thirteen, Hobart Enrolments to 1859 Part 2 M-Z*. Published by the Author: Adelaide, Australia.
- . 1992d. *The Ships of Burns, Philp and Company*. Published by the Author: Adelaide, Australia.
- . 1994. *Australian Shipowners and Their Fleets: Volume Fourteen, Port Adelaide Enrolments 1838-1869*. Published by the Author: Adelaide, Australia.
- . 1996a. *Beach Boats, Press Boats and Semaphore*. Published by the Author: Adelaide, Australia.
- . 1996b. *Ships of the Inland Rivers*. Gould Books: Adelaide, Australia.
- . 2000. *Coals by Ships From Newcastle: the "60-Milers and Other Colliers"*. Published by the author: Lobethal, Australia.
- Parsons, R. H. and Plunkett, G. 1995. *Scuttled and Abandoned Ships in Australian Waters*. Published by the Author: Adelaide, Australia.
- Parsons, R. H. and Tolley, J. C. 1973. *Paddle Steamers of Australasia*. Published by the author: Lobethal, Australia.

- Patch, D. C. and Haldane, C. W. 1990. *The Pharoah's Boat at the Carnegie*. The Carnegie Museum of Natural History: Pittsburgh, United States.
- Patterson, D. 1979. Dev's Corner: Good Luck, Good Management, or ...? *South Australian Ports and Shipping Journal* February: 13.
- Pearce, W. M. 1881. On Some Results of Recent Improvements in Naval Architecture. in *Lectures on Naval Architecture and Engineering, With Catalogue of the Exhibition, Glasgow Naval and Marine Engineering Exhibition 1880-1881*. William Collins, Sons and Company (Limited): London and Glasgow, United Kingdom, pp. 1-14.
- Pemberton, B. 1975. *The Historical Geography of Australian Coastal Shipping*. Unpublished Master of Arts Thesis, University of Melbourne: Melbourne, Australia.
- . 1979. *Australian Coastal Shipping*. Melbourne University Press: Melbourne, Australia.
- Peterson, W. J. 1968. *Steamboating on the Upper Mississippi*. Dover Publications, Inc.: New York, United States.
- Phillips, P. 1974. *River Boat Days: on the Murray, Darling, Murrumbidgee*. Landsdowne Press: Melbourne, Australia.
- Pink, K. 1998. *Through Hell's Gates: A History of Strahan and Macquarie Harbour*. 4th ed. Published by the Author: Cooe, Australia.
- Pollard, S. 1952. Laissez-Faire and Shipbuilding. *The Economic History Review* 5(1): 98-115.
- Pollard, S. and Robertson, P. 1979. *The British Shipbuilding Industry, 1870-1914*. Harvard University Press: Cambridge, United States.
- Port Adelaide Historical Society. 1981. Torrens Island - Quarantine Station. *Portonian* 9(4): 4-7.
- . 1985. H.M.C.S. "Protector" Plaque Marking the Gun on the Semaphore Foreshore. *Portonian* 13(2): Cover.
- . 1990. 50th Anniversary of the Birkenhead Bridge. *Portonian* 18(4): 8-9.
- . 1995a. Paddle Steamer Trafalgar. *Portonian* 23(4): 12.
- . 1995b. A Visit to the Opposite River Bank. *Portonian* 23(2): 8-9.
- Porter, D. D. 1962. Our Cake Is All Dough: the Opening of the Lower Mississippi. in *Battles and Leaders of the Civil War*, (eds.) R. V. Johnson and C. C. Buel. Appleton-Century-Crofts: New York, United States.
- Portnoy, A. W. 1981. A Microarchaeological View of Human Settlement Space and Function. in *Modern Material Culture: The Archaeology of Us.*, Richard A. Gould and Michael B. Schiffer. Academic Press: New York, United States, pp. 213-24.
- Probert, M. 1990. South Australia and the Great Depression. *Cabbages and Kings: Select Issues in History and Australian Studies* 18: 112-22.



- Purser, M. 1993. Consumption As Communication in Nineteenth-Century Paradise Valley, Nevada. *Historical Archaeology* 26(1): 105-16.
- Pursey, H. J. 1942. *Merchant Ship Construction: Especially Written for the Merchant Navy*. 1st ed. Brown, Son and Ferguson Ltd.: Glasgow, United Kingdom.
- . 1952. *Merchant Ship Stability*. Brown, Son and Ferguson: Glasgow, United Kingdom.
- Purtell, J. 1995. *The Mosquito Fleet: Hawkesbury River Trade and Traders 1794-1994*. Deerubbin Press: Berowra Heights, Australia.
- Purvis, F. P. 1881. Resistance and Speed in Ships. in *Lectures on Naval Architecture and Engineering, With Catalogue of the Exhibition*, Glasgow Naval and Marine Engineering Exhibition 1880-1881. William Collins, Sons and Company (Limited): London and Glasgow, United Kingdom, pp. 147-74 .
- Randell, P. 1985. Site 103: Adolphe 1903. *Newsletter of the Marine Archaeological Society, Newcastle* 2(1): 5, 7.
- Randell, S. 1999. The Effects of Material Type on Concretion Formation: A Case Study of the HMS Pandora. *The Bulletin of the Australian Institute for Maritime Archaeology* 23: 51-55.
- Randsborg, K. 1991. Seafaring and Society - In South Scandinavian and European Perspective. in *Aspects of Maritime Scandinavia AD200-1200*, (ed.) Ole Crumlin-Pederson. Viking Ship Museum: Roskilde, Denmark, pp. 11-22.
- Rathje, W. 1981. A Manifesto for Modern Material-Culture Studies. in *Modern Material Culture: The Archaeology of Us.*, Richard A. Gould and Michael B. Schiffer. Academic Press: New York, United States, pp. 51-66.
- Reiss, W. 1987. The Ship Beneath Manhattan. in *History From Beneath the Sea: Shipwrecks and Archaeology*, (ed.) Peter Throckmorton. RD Press: Melbourne, Australia, pp. 185-87.
- . 1997. Ronson Ship. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 349-50.
- Richards, M. 1996. *Shipwreck Heritage of the Clarence River: A Survey Study*. Heritage Office: Sydney, Australia.
- . 1997a. *Pig and Whistle Run: Men and Ships of the N.S.W. South Coast*. Published by the Author: Lawrence, Australia.
- . 1997b. *Shipwreck Heritage of the Richmond River: A Survey Study*. Heritage Office: Sydney, Australia.
- Richards, N. T. 1997. *The History and Archaeology of the Garden Island Ships' Graveyard, North Arm of the Port Adelaide River, Port Adelaide, South Australia*. Unpublished BA(Hons.) Thesis, Flinders University: Adelaide, Australia.
- . 1998. Inferences From the Study of Iron and Steamship Abandonment: A Case

- Study From the Garden Island Ships' Graveyard, South Australia. *The Bulletin of the Australian Institute for Maritime Archaeology* 22: 75-80.
- . 1999a. Garden Island Ships' Graveyard: Maritime Heritage Trail. *Heritage South Australia Newsletter* 15: 14-15.
- . 1999b. The Garden Island Ships' Graveyard: Results and Findings of Archaeological Fieldwork 1996-1998. *Proceedings of the National Archaeology Students Conference (NASC), 1998* 1: 11-18.
- . 2001. Ships Graveyard. in *The Port River*, (eds.) Jane Marr and Cate Kelly. City of Port Adelaide Enfield: Port Adelaide, Australia pp. 33.
- . 2002. Deep Structures: An Examination of Deliberate Watercraft Discard in Australia, Unpublished Doctoral Dissertation, Flinders University, South Australia.
- Richardson, K. 1959. Excavations at Hungate, York. *The Archaeological Journal* 116: 51-114.
- Rieck, F. 1991. Aspects of Coastal Defence in Denmark. in *Aspects of Maritime Scandinavia AD200-1200*, (ed.) Ole Crumlin-Pederson. Viking Ship Museum: Roskilde, Denmark, pp. 83-96.
- . 1996. Nydam: a Wealth of Finds in a Dangerous Environment. *Maritime Archaeology Newsletter From Roskilde Denmark* 7(December): 5-6.
- . 1998. Maritime Archaeology in Denmark, 1993-1998. in *Indian Ocean Week 1997: Proceedings*, (ed.) Graeme Henderson. Western Australian Maritime Museum: Fremantle, Australia, pp. 81-86.
- Riley, J. 1988a. *Known Shipwreck Sites in New South Wales*. Published by the Author: Sydney, Australia.
- . 1988b. P.S. Commodore. in *Iron Ships and Steam Shipwrecks: Papers From the First Australian Seminar on the Management of Iron Vessels and Steam Shipwrecks*, (ed.) Michael McCarthy. Western Australian Maritime Museum: Fremantle, Australia, pp. 141-42.
- . 1999. Steam on the Rim: The Problem of Operating Early Steamships in the Pacific and the Modification of the *Auckland Engines*. *The Bulletin of the Australian Institute for Maritime Archaeology* 23: 28-30.
- Rimes, L. 1990. Old Liner Becomes Alaskan Hotel. *Australasian Ships and Ports Magazine* 2(4): 10.
- Ritter, R. 1996. *Spanning Time and Tide: The Bridges of the Port Adelaide River*. Published by the Author: Underdale, Australia.
- Roberts, S. 1968. *History of Australian Land Settlement 1788-1920*. Macmillan of Australia: South Melbourne, Australia.
- Robertson, F. L. 1968. *The Evolution of Naval Armament*. Harold T. Storey: London,

United Kingdom.

- Robertson, J. R. 1980. 1930-1939. in *A New History of Australia*, vol. 415-457, (ed.) Frank Crowley. Griffin Press Limited: Adelaide, Australia.
- Robinson, D. 1986. North Mole Wreck. *The Bulletin of the Australian Institute for Maritime Archaeology* 10(1): 69.
- Robinson, E. H. 1974. The Early Diffusion of Steam Power. *Journal of Economic History* 34(1): 91-108.
- Robinson, R. 1998. The Diffusion of Steam in the Fishing Industries of Northwest Europe. *International Journal of Maritime History* 10(2): 179-200.
- Rodgers, B. A. 1995. *The 1995 Predisturbance Wreck Site Investigation at Claflin Point, Little Sturgeon Bay, Wisconsin*. Research Report No.10, East Carolina University: Greenville, United States.
- Rosenberg, D. A. and J. T. Sumida. 1995. Machines, Men, Manufacturing, Management and Money: The Study of Navies As Complex Organisations and the Transformation of Twentieth Century Naval History. in *Doing Naval History: Essays Towards Improvement*, (ed.) John B. Hattendorf. Naval War College Press: Newport, United States, pp. 25-40.
- Rostrow, W. W. 1938. Investment and the Great Depression. *The Economic History Review* 8(2): 136-58.
- Runestone Press Geography Department. 1994. *Sunk! Exploring Underwater Archaeology*. Runestone Press: New York, United States.
- Rusho, W. J. 1962. Charles Spencer and His Wonderful Steamboat. *Arizona Highways* 37(8): 34-39.
- Ruskin, J. 1904. *The Works of John Ruskin, Volume 13*. George Allen: London, United Kingdom.
- Samuels, B. 1987. *The Port Adelaide Centre: Past and Present*. The Port Centre Project Office: Port Adelaide, Australia.
- . 1989. The North Arm Project: National Estate Grants Programme. *Soundings: The Newsletter of the Society for Underwater Historical Research Inc*. September: 5-6.
- Sandilands, J. n.d. Swansong. *Community Link*: 5-7.
- Sands, J. O. 1983. *Yorktown's Captive Fleet*. University Press of Virginia: Charlottesville, United States.
- . 1996. Gunboats and Warships of the American Revolution. in *Ships and Shipwrecks of the Americas: A History Based on Underwater Archaeology*, (ed.) George F. Bass. Thames and Hudson: London, United Kingdom, pp. 149-68.
- Saturday Evening Mercury*. 1971. State Library of Tasmania, Hobart, Tasmania.

- Schiffer, M. B. 1972. Archaeological Context and Systemic Context. *American Antiquity* 37: 156-65.
- . 1996. *Formation Processes of the Archaeological Record*. University of Utah Press: Salt Lake City, United States.
- Schiffer, M. B., T. E. Downing, and M. McCarthy. 1981. Waste Not, Want Not: An Ethnoarchaeological Study of Reuse in Tucson, Arizona. in *Modern Material Culture: The Archaeology of Us.*, Richard A. Gould and Michael B. Schiffer. Academic Press: New York, United States, pp. 67-86.
- Schmitz, C. 1986. The Rise of Big Business in the World Copper Industry 1870-1930. *The Economic History Review, 2nd Series* 3: 392-410.
- Scrimshaw, C. 1978. *Swan and Canning River Wrecks*. Maritime Archaeological Association of Western Australia: Fremantle, Australia.
- . 1986. Swan and Canning River Wrecks. *The Bulletin of the Australian Institute for Maritime Archaeology* 10(1): 24-26.
- Sea History*. 1978. Mortlock Library of South Australianiana, Adelaide, South Australia.
- Senigallia, L. A. 1940. Medieval Sources of English Maritime Law. *The Mariner's Mirror* 26(1): 7-14.
- Senior, W. 1952. The History of Maritime Law. *The Mariner's Mirror* 38(4): 260-275.
- Sennett, R. 1885. *The Marine Steam Engine: A Treatise for the Use of Engineering Students and Officers of the Royal Navy*. Longmans, Green, and Company: London, United Kingdom.
- Sexton, R. 1982. *Before the Wind: Tracing the Impact on a Small Community and Shipping Company by the Shipwreck in 1888 of the 'Star of Greece'*. Australasian Maritime Historical Society: Magill, Australia.
- Sexton, R. T. 1990. *Shipping Arrivals and Departures, South Australia: 1627-1850*. Gould Books and Roebuck Society: Ridgehaven, Australia.
- . 1992. The Goolwa Shipbuilding Industry. in *Muddy Waters: Proceedings of the First Conference on the Submerged and Terrestrial Archaeology of Historic Shipping on the River Murray, Echuca September 21-23 1992*, (eds.) Sarah Kenderdine and William Jeffery. State Heritage Branch, Department of Environment and Natural Resources: Adelaide, Australia, pp. Chapter 5, pp. 1-39.
- . n.d. Ships and the Diver. *Papers Given at the Seminar in Shipwrecks: Underwater Archaeology and Its Relevance to South Australian History* (1-11).
- Shann, E. 1967. *An Economic History of Australia*. Georgian House: Melbourne, Australia.
- Shaw, A. G. L. 1975. *The Story of Australia*. Faber and Faber Limited: Surrey, United Kingdom.
- Shomette, D. G. 1982. *Shipwrecks on the Chesapeake: Maritime Disasters on Chesapeake Bay and*

- Its Tributaries, 1608-1978*. Tidewater Publishers: Centreville, United States.
- . 1994. *The Shipwrecks of Mallows Bay: An Historic Overview*. Report Prepared for the Maryland Historical Trust by the St. Clements Island-Potomac River Museum, Colton Point, Maryland: Centreville, United States.
- . 1995a. From Maritime Antiquarianism to Underwater Archaeology Along the Potomac Corridor, 1825-1994. *Underwater Archaeology Proceedings From the Society for Historical Archaeology Conference, Washington D.C.*: 64-71.
- . 1995b. *Tidewater Time Capsule: History Beneath the Patuxent*. Tidewater Publishers: Centreville, United States.
- . 1996. *Ghost Fleet of Mallows Bay: And Other Tales of the Lost Chesapeake*. Tidewater Publishers: Centreville, United States.
- . 1997. Chesapeake Flotilla. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 98-99.
- Simmons III, J. J. 1996. Steamboats on Inland Waterways: Prime Movers of Manifest Destiny. in *Ships and Shipwrecks of the Americas: A History Based on Underwater Archaeology*, (ed.) George F. Bass. Thames and Hudson: London, United Kingdom, pp. 189-206.
- Simpson, J. A. and Weiner, E. S. C., (eds.). 1989. *The Oxford English Dictionary, Volume XV: Ser-Sooy*. 2nd ed. Oxford University Press: Oxford, United Kingdom.
- Simpson, G. D. 1999. Historical Salvage and Maritime Archaeology. *Underwater Archaeology* : 3-10.
- Slaven, A. 1982. British Shipbuilders: Market Trends and Order Book Patterns Between the Wars. *The Journal of Transport History* 3(2): 37-62.
- Sledge, S. 1978. *Wreck Inspection North Coast (WINC)*. Unpublished Report by the Maritime Archaeology Department, Western Australian Maritime Museum: Fremantle, Australia.
- . 1979. On Shifting a Wooden Wreck. Supplementary Note to the *Day Dawn*. *The International Journal of Nautical Archaeology and Underwater Exploration* 8(3): 245.
- . 1988. Steamships and Iron Hulled Vessels in the Waters of Western Australia. in *Iron Ships and Steam Shipwrecks: Papers From the First Australian Seminar on the Management of Iron Vessels and Steam Shipwrecks*, (ed.) Michael McCarthy. Western Australian Maritime Museum: Fremantle, Australia, pp. 59-65.
- Smith, G. 1990. A Brief History of the J. Class Submarines. *The Bulletin of the Australian Institute for Maritime Archaeology* 14(1): 9-12.
- Smith, H. A., Arnold, J. B., and Oertling, T. 1987. Investigation of a Civil War Anti-Torpedo Raft on Mustang Island, Texas. *The International Journal of Nautical Archaeology and Underwater Exploration* 16(2): 149-57.

- Smith, J. 1985. *Condemned at Stanley: Notes and Sketches on the Hulks and Wrecks at Port Stanley, Falkland Islands*. Picton Print: Chippenham, United Kingdom.
- Smith, T. 1993. *P.S. Manning (1878 - C.1942) Wreck Inspection Report*. NSW Heritage Branch: Sydney, Australia.
- . 1999. *Project AE2: Investigation of the H.M.A. AE2 Submarine Wreck Site, Turvey, October, 1998*. NSW Heritage Branch: Sydney, Australia.
- Smith, V. 1953. Sailing Ships Hulked at Port Adelaide and Vessels Broken Up at Ships' Graveyard, North Arm. *South Australian Maritime Museum Archives: North Arm File*.
- Solver, C. V. 1926. The Egyptian Obelisk-Ships. *The Mariner's Mirror* 12: 237-56, 2 plates.
- Sound Telegraph*. 1994. Western Australian Maritime Museum, Fremantle, Western Australia.
- Souter, C. 2000. *Archaeological Watching Brief for New Maritime Museum Site - Forrest Landing, Victoria Quay, Fremantle*. Department of Maritime Archaeology Report, Western Australian Maritime Museum, No.150: Fremantle, Western Australia.
- South Australian Maritime Museum. n.d. *Ships Graveyard Cruises*. Unpublished Manuscript, South Australian Maritime Museum: Port Adelaide, South Australia.
- South Australian Government. 1913. *Harbors Act, 1913*.
- South Australian Parliamentary Papers*. 1932. Mortlock Library of South Australiana, Adelaide, South Australia.
- South Australian Register*. 1912 – 1930. Mortlock Library of South Australiana, Adelaide, South Australia.
- Southby-Tailyour, E. 1985. *Falkland Island Shores*. Conway Maritime Ltd.: London, United Kingdom.
- Southern Star*. 1989. Maritime Museum of Tasmania, Hobart, Tasmania.
- Southgate, G. W. 1965. *English Economic History*. J.M. Dent and Sons Ltd.: London, United Kingdom.
- Souza, D. J. 1998. *The Persistence of Sail in the Age of Steam: Underwater Archaeological Evidence From the Dry Tortugas*. Plenum Press: New York, United States.
- Spencer-Wood, S., (ed.). 1987. *Consumer Choice in Historical Archaeology*. Plenum Press: New York, United States.
- Springmann, M.-J. 1998. The Mukran Wreck, Sunk Off of the Isle of Rugen, Germany in 1565: a Preliminary Report. *The International Journal of Nautical Archaeology and Underwater Exploration* 27(2): 113-25.
- Stammers, M. K. 1997. Jhelum. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 218.

- Stammers, M. K. and Baker, J. 1994. Fell's Patent Knees - Some Evidence of Their Use. *The International Journal of Nautical Archaeology and Underwater Exploration* 80: 474-76.
- Stammers, M. K. and Kearon, J. 1991. The *Jhelum* - an East Indiaman? *The International Journal of Nautical Archaeology and Underwater Exploration* 20(4): 351-53.
- . 1992. *The Jhelum: A Victorian Merchant Ship*. Sutton Publishing: Stroud, United Kingdom and Wolfeboro Falls, United States.
- Staniforth, M. 1988. Victoria's Steamship Wreck Resource. in *Iron Ships and Steam Shipwrecks: Papers From the First Australian Seminar on the Management of Iron Vessels and Steam Shipwrecks*, (ed.) Michael McCarthy. Western Australian Maritime Museum: Fremantle, Australia, pp. 42-46.
- . 1997. The Archaeology of the Event - The Annales School and Maritime Archaeology. *Underwater Archaeology Proceedings From the Society for Historical Archaeology Conference 1997*: 159-64.
- . 1999. *Dependent Colonies: The Importation of Material Culture and the Establishment of a Consumer Society in Australia Before 1850*. Unpublished PhD thesis, Department of Archaeology, Flinders University: Adelaide, Australia.
- . 2000. A Future for Australian Maritime Archaeology? *Australian Archaeology* 50: 90-93.
- Staniforth, M. and Vickery, L. 1984. *The Test Excavation of the William Salthouse Wreck Site*. Australian Institute for Maritime Archaeology Special Publication No.3: Fremantle, Australia.
- Steffy, J. R. 1996. The Thirteen Colonies: English Settlers and Seafarers. in *Ships and Shipwrecks of the Americas: A History Based on Underwater Archaeology*, (ed.) George F. Bass. Thames and Hudson: London, United Kingdom, pp. 107-28.
- Stenuit, R. 1976. The Wreck of the Pink *Evstafz*: A Transport of the Imperial Russian Navy, Lost Off Shetland in 1780. *The International Journal of Nautical Archaeology and Underwater Exploration* 5(4): 317-31.
- Stephenson, R. 1998. Physical Processes at the CSS Chattahoochee Wreck Site. in *Maritime Archaeology: A Reader of Substantive and Theoretical Contributions*, (eds.) Lawrence E. Babits and Hans Van Tilburg. Plenum Press: New York, United States, pp. 261-66.
- Stevens, E. F. 1947. *Dictionary of Shipping Terms and Phrases*. Sir Isaac Pitman and Sons, Ltd.: London, United Kingdom.
- Stevens, W. 1997. *Machault*. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 250-251.
- Stevenson, P. 1999. *Comparative Study of the Garthneill and Enterprise Hulks*. Unpublished Wreck Inspection Report, Flinders University: Adelaide, Australia.

- Still, W. N. Jr. 1961. Confederate Naval Strategy. *Journal of Southern History* 27: 330-343.
- . 1971. *Iron Afloat: The Story of Confederate Ironclads*. Vanderbilt University Press: New York, United States.
- Stokoe, E. A. 1968. *Reed's Ship Construction for Marine Engineers*. Thomas Reed Publications: Sunderland, United Kingdom.
- Stone, P. and Loney, J. K. 1983. *High and Dry: Visible Wrecks and Wreckage in Australian Waters*. Neptune Press Pty. Ltd.: Newtown, Australia.
- Strachan, S. 1986. *The History and Archaeology of the Sydney Cove Shipwreck (1797): a Resource for Future Site Work*. Department of Prehistory, Research School of Pacific Studies, Australian National University: Canberra, Australia.
- . 1988. The Potential of Steamship and Iron Ship Archaeology in Tasmania. in *Iron Ships and Steam Shipwrecks: Papers From the First Australian Seminar on the Management of Iron Vessels and Steam Shipwrecks*, (ed.) Michael McCarthy. Western Australian Maritime Museum: Fremantle, Australia, pp. 47-54.
- Sullivan, C. 1986. *Legacy of the Machault: A Collection of 18th-Century Artifacts*. Environment Canada: Quebec, Canada.
- Sunday Times*. 1996. Western Australian Maritime Museum, Fremantle, Western Australia.
- Switzer, D. C. 1981a. Interpretation of the Stern Area of the Privateer Defence. in *Proceedings From the 12th Annual Conference on Underwater Archaeology*, (ed.) Gordon P. Watts. pp. 144-50 .
- . 1981b. Nautical Archaeology in Penobscot Bay: The Revolutionary War Privateer Defence. in *New Aspects of Naval History*, (ed.) C. L. Symonds. Annapolis, United States, pp. 90-101.
- . 1981c. Recovery and Initial Interpretation of the Shot Locker and Bilge Pump Well From the Privateer Defence. *Proceedings From the 10th Annual Conference on Underwater Archaeology* 76-94.
- . 1983a. Maritime Archaeology in the United States. in *Proceedings of the Second Southern Hemisphere Conference on Maritime Archaeology*, (eds.) William Jeffery and J. Amess. South Australian Department of Environment and Planning and the Commonwealth Department of Home Affairs and Environment: Adelaide, Australia, pp. 133-42.
- . 1983b. The Defence Project: 1975 - 1981. in *Proceedings of the Second Southern Hemisphere Conference on Maritime Archaeology*, (eds.) William Jeffery and J. Amess. South Australian Department of Environment and Planning and the Commonwealth Department of Home Affairs and Environment: Adelaide, Australia, pp. 205-35.
- . 1987. Privateers, Not Pirates. in *History From Beneath the Sea: Shipwrecks and Archaeology*, (ed.) Peter Throckmorton. RD Press: Melbourne, Australia, pp. 194-98.



- . 1997. Defence. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 128-29.
- . 1998. The Defence. in *Excavating Ships of War*, (ed.) Mensun Bound. Anthony Nelson: Oswestry, United Kingdom, pp. 182-93.
- Tann, J. and Breckin, M. J. 1978. The International Diffusion of the Watt Engine, 1775-1825. *The Economic History Review* 31(4): 541-64.
- Tatton-Brown, T. 1975. Excavations at the Customs House Site, City of London - Part 2. *Transactions of the Middlesex Archaeological Society, London* 26: 103-70.
- Taylor, C. 1998. *The Brothers Taylor: A Tasmanian Maritime History*. Navarine Publishing: Woden, Australia.
- Taylor, H. J. 1980. *The History of Townsville Harbour: 1864-1979*. Boolarong Publishers for the Townsville Harbour Board: Brisbane, Australia.
- Taylor, P. 1996. Carmen. *Maritime Archaeology Association of Victoria Projects Report*: 19-23.
- Taylor, S. 1985. Editorial. *Newsletter of the Marine Archaeological Society, Newcastle* 2(2): 1-3.
- Temin, P. 1963. The Composition of Iron and Steel Products, 1869-1909. *Journal of Economic History* 23(4): 447-71.
- Thearle, S. J. P. 1891. *The Modern Practice of Shipbuilding in Iron and Steel, Volume 2 - Plates*. Collins' Clear-Type Press: London and Glasgow, United Kingdom.
- . 1902. *The Modern Practice of Shipbuilding in Iron and Steel, Volume 1 - Text*. 3rd ed. William Collins, Sons and Company: London, United Kingdom.
- The Mercury*. 1964. State Library of Tasmania, Hobart, Tasmania.
- The Providence*. 1992. Western Australian Maritime Museum, Fremantle, Western Australia.
- Thomas, D. 1987. Clarence River. *Australian Sea Heritage* 14(Spring): 3.
- Thompson, F. W. 2000. *After World War II Came Rock'n'Roll, Then Larrikins: Port Adelaide and LeFevre Peninsula in My Time*. Single X Publications: Glenside, Australia.
- Thompson, W. R. 1995. Some Mild and Radical Observations on Desiderata in Comparative Naval History. in *Doing Naval History: Essays Toward Improvement*, (ed.) John B. Hattendorf. Naval War College Press: Newport, United States, pp. 93-116.
- Thomson, D. 1978. *England in the Nineteenth Century: 1815-1914*. Penguin Books: London, United Kingdom.
- Thomson, J. M. 1979. Wreck of the Wild Wave. in *Tall True Tales of the Sea: by Old Shellbacks*, Investigator Press: Adelaide, Australia, pp. 65-73 .
- Thomson, L. 1997. The Biodegradation of the Wreck Day Dawn. *The Bulletin of the*

*Australian Institute for Maritime Archaeology* 21(1&2): 119-24.

- Throckmorton, P. 1970. *Shipwrecks and Archaeology: The Unharvested Sea*. Victor Gollancz Ltd.: London, United Kingdom.
- . 1976. The American Heritage in the Falklands. *Sea History* 4: 36-71.
- . 1987a. Shipwrecks and St. Paul. in *History From Beneath the Sea: Shipwrecks and Archaeology*, (ed.) Peter Throckmorton. RD Press: Melbourne, Australia.
- . 1987b. The Shipwright's Art. in *History From Beneath the Sea: Shipwrecks and Archaeology*, (ed.) Peter Throckmorton. RD Press: Melbourne, Australia, pp. 92-100.
- . 1987c. Bones on a Beach. in *History From Beneath the Sea: Shipwrecks and Archaeology*, (ed.) Peter Throckmorton. RD Press: Melbourne, Australia, pp. 210-214.
- Times-Colonist*. 1992. Western Australian Maritime Museum, Fremantle, Western Australia.
- Todd, A. W. 1995. The Memories of Captain Andrew Walter Todd. *Portonian* 23(3): 3-6.
- Tregenza, J. 1991. *Le Messuriers of Port Adelaide: Five Generations of Enterprise in Transport and Timber*. Le Messurier Timber Co. Pty. Ltd.: Adelaide, Australia.
- Trigger, B. G. 1995. *A History of Archaeological Thought*. Cambridge University Press: Cambridge, United Kingdom.
- Tull, M. T. 1992. Shipping, Ports and the Marketing of Australia's Wheat, 1900-1970. in *Land and Sea: The Role of Shipping in Australasian Economic Development*, (eds.) G. D. Snooks and J. J. Pincus. Oxford University Press and the Economic History Society of Australia and New Zealand: Melbourne, Australia, pp. 33-59.
- . 1997. *A Community Enterprise: The History of the Port of Fremantle, 1897 to 1997*. International Maritime Economic History Association: St. John's, Canada.
- Underwater Research Group Queensland. 1996. *Curtin Artificial Reef*. Pamphlet published by URGQ: Brisbane, Australia.
- Vancouver Sun*. 1992. Western Australian Maritime Museum, Fremantle, Western Australia.
- Valdaliso, J. M. 1996. The Diffusion of Technological Change in the Spanish Merchant Fleet During the Twentieth Century: Available Alternatives and Conditioning Factors. *The Journal of Transport History, 3rd Series* 17(2): 95-115.
- Van Der Vat, D. 1998. *The Grand Scuttle: The Sinking of the German Fleet at Scapa Flow In 1919*. Birlinn Limited: Edinburgh, United Kingdom.
- Varns, R. E. J. 1969. *Blue Peter: Australian Maritime Journal*. Vol. 1(2).
- Venturoni, M. 1996. Uralba. *Maritime Archaeology Association of Victoria Projects Report*: 3-7.

- Veth, P. and McCarthy, M. 1999. Types of Explanation in Maritime Archeology: The Case of the SS XANTHO. *Australian Archaeology* 48(June): 12-15.
- Victoria Archaeological Survey. 1992. *Underwater Shipwreck Discovery Trail*. Maritime Archaeology Unit, Victoria Archaeological Survey: Melbourne, Australia.
- Ville, S. 1986. Total Factor Productivity in the English Shipping Industry: The North-East Coal Trade, 1700-1850. *The Economic History Review* 3: 355-70.
- . 1989. The Problem of Tonnage Measurement in the English Shipping Industry, 1780-1830. *International Journal of Maritime History* 1(2): 65-83.
- Ville, S. P. 1992. The Growth of Foreign Trade and Shipping at New Zealand's Major Seaports During the Nineteenth Century. in *Land and Sea: The Role of Shipping in Australasian Economic Development*, (eds.) G. D. Snooks and J. J. Pincus. Oxford University Press and the Economic History Society of Australia and New Zealand: Melbourne, Victoria, pp. 60-89.
- Volti, R. 1995. *Society and Technological Change*. 3rd ed. Tom Doherty Associates : New York, USA.
- Wachsmann, S. 1987. The Galilee Boat. in *History From Beneath the Sea: Shipwrecks and Archaeology*, (ed.) Peter Throckmorton. RD Press: Melbourne, Australia, pp. 81-83.
- . 1997. Sea of Galilee Wreck. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 364-65.
- Wallace-Carter, E. C. 1987. *For They Were Fishers: the History of the Fishing Industry in South Australia*. Amphitrite Publishing House: Adelaide, Australia.
- Walter, R. D. 1999. 70 Years of Progress: A History of Walter & Morris. *Portonian June*: 8-16.
- Walton, T. and Baird, J. 1950. *Steel Ships, Their Construction and Maintenance: A Manual for Shipbuilders, Ship Superintendents, Students, and Marine Engineers*. Charles Griffin and Company Limited: London, United Kingdom.
- Wanklyn, N. 1988. Floating Circus - Use for Redundant Ship? *Australasian Ships and Ports Magazine* 1(2): 31.
- Ward-Haldane, C. 1988. Boat Timbers From El-Lisht: A New Method of Ancient Egyptian Hull Construction. Preliminary Report. *The Mariner's Mirror* 74: 141-52.
- Ward, I. A. K., Larcombe, P., and Veth, P. 1998. Towards New Process-Oriented Models for Describing Wreck Disintegration - an Example Using the *Pandora* Wreck. *The Bulletin of the Australian Institute for Maritime Archaeology* 22: 109-14.
- . 1999. A New Process-Based Model for Wreck Site Formation. *Journal of Archaeological Science* 26: 561-70.
- Ward, J. M. 1966. *Empire in the Antipodes: the British in Australasia 1850-1860*. Edward

- Arnold Ltd.: London, United Kingdom.
- Ward, R. 1969. *Australia*. Ure Smith Pty. Ltd.: North Sydney, Australia.
- Warne, I. 1983. The History of the Maritime Archaeological Association of Western Australia. in *Proceedings of the Second Southern Hemisphere Conference on Maritime Archaeology*, (eds.) William Jeffery and J. Amess. South Australian Department of Environment and Planning and the Commonwealth Department of Home Affairs and Environment: Adelaide, Australia, pp. 104-7.
- . 1986a. Marmion Beach Wreck. *The Bulletin of the Australian Institute for Maritime Archaeology* 10(1): 46-47.
- . 1986b. Day Dawn. *The Bulletin of the Australian Institute for Maritime Archaeology* 10(1): 63-64.
- . 1986c. Albany Weekend - 'Cheynes III'. *The Bulletin of the Australian Institute for Maritime Archaeology* 10(1): 74.
- Warner, O. 1968. *The Navy*. Penguin Books Limited: Harmondsworth, United Kingdom.
- Waters, M., Parker, G., Riley, J., and Randell, P. 1984. *M.A.S. Site No.101: A Paddle Steam Tug*. Marine Archaeological Society of Newcastle: Newcastle, Australia.
- Watson, K. 1993. Wreck Rescue: Nautical Archaeology in the River Medway. *Nautical Archaeology: Society Newsletter for the World of Underwater, Foresore, Ship and Boat Archaeology* August: 7-8.
- Watson, P. J. 1983. Method and Theory in Shipwreck Archaeology. in *Shipwreck Anthropology*, (ed.) Richard A. Gould. University of New Mexico Press: Albuquerque, United States, pp. 23-36.
- Watt, J. P. C. 1989. *Stewart Island's Kaipipi Shipyard and the Ross Sea Whalers*. Published by the Author: Havelock North, New Zealand.
- Watts Jr., G. P. 1996. The Civil War at Sea: Dawn of an Age of Iron and Engineering. in *Ships and Shipwrecks of the Americas: A History Based on Underwater Archaeology*, (ed.) George F. Bass. Thames and Hudson: London, United Kingdom, pp. 207-30.
- WBM Oceanics Australia. 2000. *Port of Brisbane: Port Expansion at Fisherman Islands, Draft Impact Assessment Study: Volume 1*. WBM Oceanics Australia: Spring Hill, Australia.
- Webb, W. J. 1975. The United States Wooden Steamship Program During World War 1. *American Neptune* 35(4): 275-88.
- Wehausen, J. V., Mansour, A., Ximenes, M. C., and Stross, F. 1988. The Colossi of Memnon and Egyptian Barges. *The International Journal of Nautical Archaeology and Underwater Exploration* 17(4): 295-310.
- Weisgall, J. M. 1994. *Operation Crossroads: The Atomic Tests at Bikini Atoll*. United States Naval Institute: Annapolis, United States.
- Weski, T. 1998. German Windships at the Beginning of the 20th Century - Modern or

- Outdated? *The Great Circle* 20(1): 19-45.
- West, J. 1852. *The History of Tasmania, Volume 2*. Henry Dowling: Launceston, Australia.
- West Australian*. 1938 – 1996. State Library of Western Australia, Perth, Western Australia.
- Western Australian Maritime Museum. *File 12/93/1: Project: Scuttlings – Modern*, Fremantle, WA.
- . *File 12/93/2: Project: Scuttlings – Modern*, Fremantle, WA.
- . *File 12/93/3: Project: Scuttlings – Modern*, Fremantle, WA.
- . *File 193/79/1: Richard McKenna Notes*, Fremantle, WA.
- . *File 193/79/2: Richard McKenna Notes*, Fremantle, WA.
- . *File 445/71/1*, Fremantle, WA.
- White, C. 1995. Putting People Back into Ships: the Use of Archaeological Evidence in the Interpretation of Preserved Ships. *The Bulletin of the Australian Institute for Maritime Archaeology* 19(1): 1-4.
- Willcock, B. 1986. Stockton Breakwater, Sunday 13 April 1986 - Survey. *Newsletter of the Marine Archaeological Society, Newcastle* 4(1): 8.
- Williams, D. S. 1984. Torpedo Boat (Swan Island) Progress Report - June 1984. in *Martitime Archaeology Association of Victoria: Project Reports 1984*, Martitime Archaeology Association of Victoria: Melbourne, Australia.
- Williams, K. 1997. Discussion of the Move of the *Day Dawn*. *The Bulletin of the Australian Institute for Maritime Archaeology* 21(1&2): 125-28.
- Wilson, G. 1996. Conduct Most Unbecoming: Strange Doings Aboard Her Majesty's Queensland Ship Gayundah. *Naval Historical Review* 17(2): 25-33.
- Wilson, J. L. 1974. Classification Society Rules and Interconnection of Government and the Shipping Industry. in *The Shipbuilding Business in the United States of America, Volume 2*, (ed.) Jr. F. G. Fassett. Macdonald and Jane's: New York, United States.
- Wilson, R. A. 1983. Wreck of the "Lady Elizabeth". *Sea Breezes: The Magazine of Ships and the Sea* 57(446): 85-88.
- Winspear, J. 1978. *Major Shipwrecks on the Oyster Bank at Newcastle*. Unpublished Local History Thesis, Newcastle College of Advanced Education: Newcastle, Australia.
- Wolfe, A. 1990. *The New South Wales Historic Shipwrecks Study*. New South Wales Heritage Office: Sydney, Australia.
- Wood, A. 1996. Hulk Survey, Kidwelly, Dyfed. *Nautical Archaeology: Society Newsletter for the World of Underwater, Foreshore, Ship and Boat Archaeology* Spring: 6-7.

- Wood, J. T. 1962. The Battle Was a Drawn One. in *Battles and Leaders of the Civil War*, (eds.) R. V. Johnson and C. C. Buel. Appleton-Century-Crofts: New York, United States.
- Woodley, A. E. 1992. *Western Port Wrecks and Maritime Mishaps*. Loch Haven Books: Main Ridge, Australia.
- Wright, J. 1990. *Diving Southern Queensland: A Guide to 40 of the Top Dive Sites From Heron Island to Byron Bay*. Division of Information, Department of Lands: Brisbane, Australia.
- Wright, M. 1992. *River Murray Charts: Renmark to Yarrowonga*. 5th ed. B.J. and M.A. Wright: Burra, Australia.
- Wyman, D. 1981. Developing the Plans for the Revolutionary War Privateer *Defence*. *Beneath the Waves of Time: The Proceedings of the Tenth Conference on Underwater Archaeology*: 85-94.
- Zacharchuk, W. and Waddell, P. J. A. 1984. *The Excavation of the Machault: An 18th-Century French Frigate*. Environment Canada: Quebec, Canada.
- Zarzynski, J. 1997. Wiawaka Bateaux Cluster. in *Encyclopaedia of Underwater and Maritime Archaeology*, (ed.) James P. Delgado. British Museum Press: London, United Kingdom, pp. 463-64.

### Websites

Sea Dumping data by Geoff Plunkett, Environment Australia  
<http://www.ea.gov.au/coasts/pollution/dumping/boats/index.html>

Australian Historic Shipwrecks Database, Australasian Institute for Maritime Archaeology <http://dbase.mm.wa.gov.au/WEBFM/Shipwrecks/Shipsearch.html>.

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