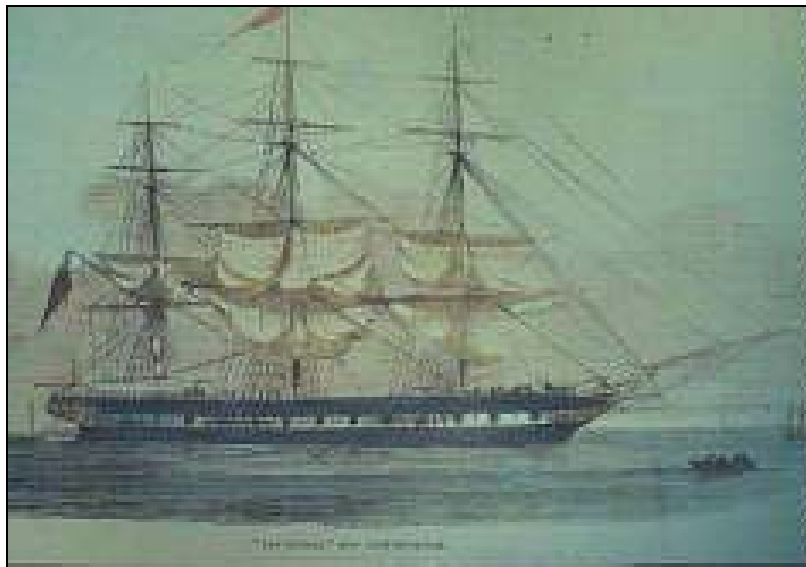


DUNBAR (1854-1857)

CONSERVATION MANAGEMENT PLAN



**Maritime Archaeology Program
NSW Heritage Office**



**Sydney
1992**

Prepared by David Nutley and Tim Smith

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Cover: *Lithograph depicting the Dunbar. Courtesy of Australian National Maritime Museum Collection, Sydney.*

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MANAGEMENT PLAN

DUNBAR (1854 -1857)

1.0 SUMMARY OF THE PLAN

This Management Plan has been prepared by the NSW Heritage Office ¹. Its purpose is twofold:

1. to evaluate the heritage significance of the wreck, *Dunbar*
2. to provide strategies for management of the site and its associated artefacts

The inclusion of the *Dunbar* as an Historic Shipwreck under Section 5² of the Commonwealth's *Historic Shipwrecks Act, 1976* acknowledges that the wreck site is culturally significant. This management plan will examine its heritage values in the context of potential impacts of human activities and natural forces.

The first stage in this evaluation is gaining an understanding of the vessel's historical context. Therefore the Management Plan begins with a brief history of the vessel based largely on documentary sources (3.0) and, a detailed description of the wreck structure and associated materials visible on the site (3.5).

From this information, a detailed Statement of Significance for the wreck site and associated materials has been prepared (4.3). This is related to an assessment of significance using established significance criteria (4.1).

The Plan examines various constraints that may affect the integrity of the wreck site and associated materials (5.0).

The Plan proceeds to determine a management policy (6.0) from which general and specific recommendations flow (7.0).

In brief, this report concludes that the *Dunbar* is an item of State and national heritage significance. It recommends that all elements of the site should continue to be protected and conserved. Further, that various opportunities exist for the interpretation of the site and associated materials.

¹ Formerly the Heritage Branch, Department of Planning, then Department of Urban Affairs & Planning.

² Since the introduction of Section 4 of the Act, 'Blanket Declaration', all wreck site over 75 years of age from the date of loss are now automatically protected as Historic Shipwrecks. Individual declaration of sites within this age range is no longer required.

2.0 INTRODUCTION

2.1 Background

The location of the *Dunbar* wreck site was confirmed within days of the disaster in 1857. Salvage work has been undertaken at the site over a number of decades, notably in 1910 and from the 1950's with the rapid development and availability of SCUBA diving equipment.

Located some five hundred yards south of the area on South Head known as "The Gap", jurisdiction of the site falls within the Commonwealth *Historic Shipwrecks Act*, 1976 (HSA). The NSW Heritage Office is responsible for the management of the site and has undertaken its initial archaeological survey and assessment. The Director of the Heritage Office being the New South Wales delegate for administration of the Act in this State.

A series of site inspections were conducted by Heritage Office maritime archaeologists David Nutley (Project Leader) and Tim Smith with assistance from the Manly Hydraulics Laboratory (MHL - Department of Public Works & Services). These inspections occurred on the 30 October 1990, 29 July 1991 and 14 August 1992.

The remains of the *Dunbar* were provisionally declared Historic under Section 6 of the HSA on 29 November 1989 (Case for Provisional Declaration as an Historic Shipwreck, Heritage Office). It was gazetted as an Historic Shipwreck under Section 5 of the Act on 24 October 1991 (*Dunbar: Wreck Inspection Report*, Heritage Office).

This plan aims to ensure the survival of the site and all associated materials that have been established to be irreplaceable items of cultural heritage. The Plan provides a framework for any decisions regarding what happens to the site and associated materials, with specific reference to legal protection, threats, the interpretation of the remains and future research.

2.2 Scope

The scope of this Plan of Management includes the wreck site and associated remains, the artefact collections and the records collection.

2.2.1 The Site:

The *Dunbar* site lies in water at a depth of between 4-7 metres. The remains are scattered over an area of approximately 30-50 metres amongst large sandstone boulders at the foot of the South Head cliffs, some 500 yards south of "The Gap". Prominent features include pig-iron ballast blocks and anchor chain together with a Porter's and Admiralty style anchor.

2.2.2 The Artefact Collections:

These include undocumented materials recovered at the time of the disaster and the greater collection of artefacts recovered by divers since that time and now in private (largely undocumented) collections. Documented material includes an Admiralty style anchor raised from the site in 1910 and placed on permanent display at "The Gap". Several artefacts from the wreck site are currently on display at the Australian National Maritime Museum, on loan from private collections.

2.2.3 The Records Collection:

This includes approximately 40 colour transparencies and photographs stored at the Heritage Office and entered onto the Maritime Photographic Register (MPR), underwater recording sheets, site/artefact drawings derived from field surveys and historical research material.

2.3 Methodology and Terminology

The investigation of the site has followed established procedures for pre-disturbance wreck surveying. This Management Plan and assessment of significance are based upon criteria outlined in the *Guidelines for Management of Australia's Historic Shipwrecks* published by the (then) Department of Arts, Sport, The Environment and Territories (DASET). The report acknowledges the principles laid down in 'The Australian ICOMOS Charter for the Conservation of Places of Cultural Significance', ('The Burra Charter'). Two kinds of investigation were employed, documentary research and site investigation. The sources consulted are given as references in Section 9.0.

2.4 Legislation

Historic shipwrecks in Australia are protected from vandalism, looting and theft through laws passed by the Commonwealth and some State Governments. The Commonwealth *Historic Shipwrecks Act, 1976* covers shipwrecks in Australian waters below the low water mark. Persons who find shipwrecks or articles associated with shipwrecks in these waters are required to notify the Federal Minister for Environment, through Environment Australia. In New South Wales, the notification is made through the Director of the Heritage Office as New South Wales' delegate for the administration of the Act.

The New South Wales *Heritage Act, 1977* (State) covers all shipwreck remains and other underwater heritage which lie within the internal waters of New South Wales (i.e. rivers, harbours, lakes and bays) and which are related to the colonisation of Australia or are more than fifty years of age. Under this Act, no relics may be intentionally disturbed or altered without an excavation permit issued by the Heritage Council of New South Wales.

2.5 Limitations

A limitation to the overall interpretation of the site is that the remains have been heavily denuded through souveniring of the material remains. This, combined with the exposed nature of the site, limits the potential for a complete archaeological survey of the remains. Such a survey is necessary to complete the documentation and the full interpretation of the site.

2.6 Acknowledgements

The study team acknowledges the assistance kindly provided by the following organisations and people:

Australian National Maritime Museum Library (ANMM)
Manly Hydraulics Laboratory, Sydney (MHL)
Mitchell Library, Sydney
Woollahra Municipal Council
Mr. Colin Browne (MHL)
Mr. Phil Clark (MHL)
Ms. Jenny Dickens, Museums Association, New South Wales
Mr. Jon Jacobs (Commercial Diver)
Mr. Mark Staniforth, Maritime Archaeologist
Mr. John Sumner (Diver).



Figure 1: The South Head cliffs where the Dunbar struck in 1857. The wreck site lies in the water at left. Photo by David Nutley.

3.0 OUTLINE HISTORY OF THE *DUNBAR*

Adapted largely from Wolfe, A., 1990, "The New South Wales Historic Shipwreck Study", prepared for the Heritage Office. Sydney.

3.1 Historical Context

The *Dunbar* was wrecked during a period of great social and economic growth in Australia. The Australian gold rushes of the early 1850's had greatly accelerated demands for goods and services that could only be met by expansion within agriculture, industry and commerce.

The trade was dominated by British shipping. However, British ship design was forced to meet a challenge from American soft wood clippers. The 1850's saw marked design innovations including the development of hardwood ships like the *Dunbar*.

The Australian goldfields and the associated demand for passenger ships led shipowner Duncan *Dunbar* to order the construction of a clipper from the English shipbuilding firm of James Laing and Sons at Sunderland in 1852.

3.2 The Vessel

Named after its influential owner, the new vessel took more than sixteen months to build at a cost of over £30 000 (£22 9s per ton). At the time of launching in November 1853, the *Dunbar* was said to be the largest vessel ever built at Sunderland. With a hull and frames of British oak and deck of East India teak, the *Dunbar* was a first class ship. Coppered throughout, it was fitted with iron knees and had a British lion figurehead, characteristic of a Dunbar ship.

Because of the Crimean War, the *Dunbar's* initial employment was as a troop ship. It was not until 1856 that the first visit was made to Australia. On arrival in Port Jackson, the *Sydney Morning Herald* reflected that "*the Dunbar is a splendid vessel*". The *Dunbar* remained in Sydney for three months, returning to England that same year. By May 1857, the vessel and crew were ready for a second voyage to the colony.

3.3 Wreck Event

The doomed vessel arrived off Sydney Heads on the night of Thursday, 20 August 1857. It was a dismal evening. Heavy rain impaired vision, obscuring the sentinel cliffs at the entrance to Port Jackson.

The voyage had begun in Plymouth on 31 May 1857. After 81 days of confinement, the impending disembarkment at Sydney Cove was a comforting thought to immigrants and returning colonists.

Captain Green had made a number of visits to Port Jackson and had been captain on the *Dunbar* on its 1856 voyage. However in approaching the harbour in 1857 miscalculation of leeway due to the rain and darkness was to have disastrous consequences. On squaring up for the run into port he apparently believed that they were approaching North Head. When the shout '*breakers ahead!*' was heard, Captain Green, still believing their position to be north of the harbour entrance, ordered 'hard-a-port'. Instead of entering the safety of the harbour, the *Dunbar* drove onto boulders at the foot of South Head.



Figure 2: An Admiralty anchor recovered from the wreck site in 1910 and later displayed at The Gap as a permanent memorial to those lost in the tragedy. Photo: Mark Spencer.

The impact brought down the topmasts, mounting seas stove in the lifeboats and the *Dunbar* heaved broadside to the swells. Lying on beam-ends, the vessel began to break up almost immediately. One man, able seaman James Johnson, found himself hurled onto a rocky ledge and, scrambling higher, became the sole survivor. The remaining 58 crew and all 63 passengers perished.

Dawn gradually unveiled the enormity of the tragedy to the community of Sydney, still a relatively small country town. The death toll of 121 lives staggered the population. Thousands were drawn to the scene and the morbid task of identifying relatives, friends and business associates soon began.

James Johnson clung to his precarious hold on the rock ledge until the morning of the 22 when he was noticed from the cliff top. He later served in the lighthouse at Newcastle and, ironically, assisted in the rescue of the sole survivor of the ss *Cawarra* on the Oyster Banks in 1866.

The victims of the *Dunbar* were buried at St Stephens Church, Newtown. Some 20,000 people lined George Street for the funeral procession held on Monday 24 August. Banks and offices closed, every ship in harbour flew their ensign at half mast and minute guns were fired as the seven hearses and over one hundred carriages moved by.

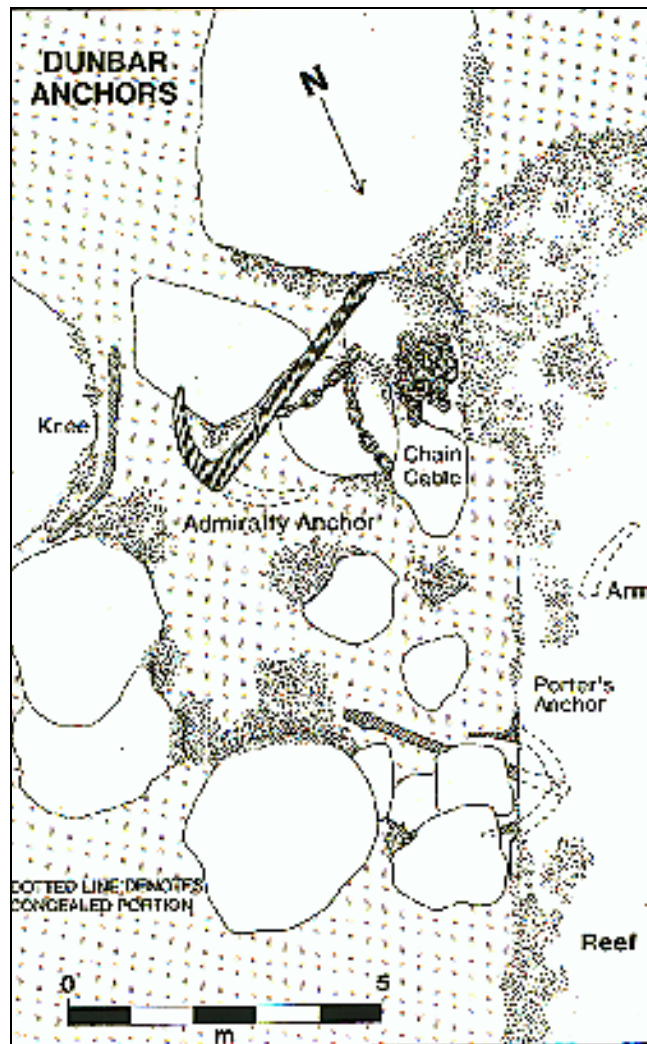


Figure 3: Plan of significant features at the northern extremity of the site. An Admiralty pattern anchor and a Porters Anchor. Drawing by Tim Smith.

3.4 Salvage

Large quantities of material have allegedly been removed from the site since its rediscovery about 1955 and remain in largely unrecorded collections. A large Admiralty style anchor was removed from the wreck site in 1910 and put on permanent display at "The Gap" at South Head as a memorial in the 1930's (Figure 2).

3.5 The Site

The northern extent of the site (Figure 3) is marked by a Porter's anchor lying beneath a rock overhang. An Admiralty style anchor lies approximately four metres to the south. One arm of this anchor is broken and is located between the anchors. Near the western end of the Admiralty style anchor's shaft is an area of concretion which includes a substantial portion of chain cable and a brass fastening pin. It is likely that this concretion is a residue of the typical concretion present on the site prior to the advent of popular SCUBA diving. It is also likely to hold a variety of cultural remains in addition to the brass pin.

Other sections of chain cable and some copper sheathing are concreted between sandstone boulders throughout the remainder of the site. The most prevalent of the remains comprise pig-iron ballast blocks. Isolated sand pockets contain smaller items related to the vessel and cargo, including metal sheathing tacks, glass and ceramic fragments.

4.0 CULTURAL SIGNIFICANCE

Significance has been assessed in accordance with the nature and degree of significance of the site's primary attributes. These include attributes related to historical, social, archaeological, scientific and interpretative significance.

4.1 Nature of Significance

4.1.1 Historical (concerned with range of context)

The *Dunbar* is significant:

- in the evolution of sea safety.

The dramatic loss of the fine immigrant ship and that of the *Catherine Adamson* shortly afterwards, created enormous pressure for the locating of a lighthouse closer to South Head (Hornby Light) than the existing lighthouse (Macquarie Light).

- as being representative, in New South Wales, of the dangers associated with immigrant travel in the period of the 1850's gold rushes.

The events that followed the wreck, the search, the recovery, the inquest and burial of the victims, had a considerable impact on the developing colony. That population consisted of a significant proportion of people who had travelled by sea and who were able to directly relate to its hardships and fears.

A shipwreck event that had considerable impact on the contemporary colonial society in Australia and which contributed to the improvement of navigation facilities in Port Jackson.

4.1.2 Technical (concerned with technical or creative achievement)

Material that has been recovered from the site such as spectacles, a telescope, coins, sextant, anchors and cannon, etc, are likely to be of moderate to high significance.

The materials remaining on the *Dunbar* site are of low significance in terms of their technical attributes.

4.1.3 Archaeological (concerned with research potential through investigation of material remains)

The *Dunbar* wreck site retains significance in its potential to provide information about Australia's immigration in the 1850's.

Although the archaeological potential of the wreck site has been greatly reduced through the activities of souvenir hunting, small areas of undisturbed concretion survive, together with artefacts trapped under or between rocks. These areas are likely to provide research opportunities and sampling of the type of artefacts that once predominated on the site.

4.1.4 Social (concerned with community regard or esteem)

The *Dunbar* wreck site is significant through its continuing association with descendants of the victims and as one of the most well known Australian maritime tragedies.

The social value of the shipwreck is demonstrated by the continuing memorial services held at St Stephens church, Newtown and by the thousands of visitors who view the memorial plaques at the cliff top above the wreck site.

4.1.5 Interpretative (concerned with public education values)

The site is significant for its interpretative potential through public education programs.

A shipwreck which, by virtue of its notoriety, historical documentation, dramatic location and the availability of various relics held in private custody, has considerable potential for public interpretation, through displays, plaques in public places adjacent to the site, brochures and other publications.

4.2 DEGREE OF SIGNIFICANCE

4.2.1 Rare (concerned with the uncommon or exceptional)

Significant, particularly in relation to its interpretative potential, as a rare example of a shipwreck associated with a large loss of life in close proximity to a major port and centre of population.

4.2.2 Representative (concerned with the typical or characteristic)

Representative, particularly in relation to its historical attributes, of the dangers associated with immigrant travel in the mid 1850's.

4.3 STATEMENT OF SIGNIFICANCE

The *Dunbar* wreck site and its associated relics are a significant component of Australia's maritime heritage by virtue of the shipwreck's impact on the developing colony of Sydney, its influence on the improvement of navigational aids and its potential for interpretation through public education programs. The wreck site maintains an important and continuing association with descendants of the victims and as one of the most well known Australian maritime tragedies.

5.0 CONSTRAINTS AND OPPORTUNITIES

5.1 Factors Arising Out Of Significance.

The site and the artefact collections are significant and should be protected. The integrity of the remaining elements of the ship structure and cargo must be maintained. A close association must also be maintained with the wreck location, The Gap, South Head, to promote the areas historical ties with the wreck site, together with its protection and continued assessment.

5.2 Human Threats.

The site is vulnerable to, and has suffered greatly from, human intervention problems. Being located in a highly populated area, within a community of active divers, the site has been heavily denuded of relics. Sport and commercial divers readily gain access to the site by boat in favourable sea conditions. Dive boats anchoring close to the site could potentially interfere with portions of the remaining

wreck structure. Diver activity can also lead to damage through the removal of organic overburden and handling of the remains. A number of small, loose artefacts remain within the relic field and can be readily removed from the site. The use of explosives in the 1950's and 60's to dislodge relics, has been recorded.

5.3 Relics.

Material recovered from the *Dunbar* site includes that recovered by individuals at the time of the wrecking and that removed by private persons since that time. The majority of this material is held in personal, undocumented collections. A limited number of relics are on display at the Australian National Maritime Museum (on loan). No material has been recovered during the recent archaeological site inspections.

5.4 Archaeological Context.

Material recovered from the site and those items undergoing conservation treatment, should be, where possible, kept together as a single collection. At present, the material is widely separated throughout greater Sydney and interstate and is currently insufficient to support any form of travelling or other exhibition.

5.5 Environmental Threats.

The site is susceptible to damage from natural forces. Ships wrecked in an area of strong wave and surge action, like the *Dunbar*, at a shallow depth in a highly oxygenated environment can have high rates of decay and corrosion. Such conditions can lead to accelerated deterioration and dissemination of material remaining on site.

5.6 Environmental Factors.

The wreck site is exposed to the majority of sea conditions with heavy storms periodically sweeping the site which lies at the foot of the outer South Head. These physical processes can impinge on site longevity and thus on the site's archaeological significance. Erosion of the wreck structure has been severe and the removal of exposed artefacts can lead to further reduction of site integrity.

5.7 Site Use.

The *Dunbar* wreck site is presently used for recreational activities and is generally visited by sport divers. Access is not monitored and it has been impossible to gauge the frequency of the public use of the site.

5.8 Archaeological Investigation.

There is an opportunity for further archaeological investigation of the site to answer questions regarding details of the shipwreck event, associated artefacts and the environmental conditions. Additional historical research is required to determine the role of the vessel in the development of New South Wales in the mid-nineteenth century.

5.9 Archaeological Excavation and Permits.

Archaeological excavation of the site is not anticipated in the near future. Any proposed excavation must follow the guidelines outlined by the Australian Institute for Maritime Archaeology *Code of Ethics* and meet approval by Environment Australia or the Director of the NSW Heritage Office, as the New South Wales delegate. Any excavation would need to consider the effect that the removal of material would have on the overall stability and integrity of the site. All material removed must be conserved in accordance with the AICCM *Code of Ethics*.

5.10 Development Proposals.

The remains of the *Dunbar* may be subject to development proposals. The site is most likely to be subjected to changes associated with the sewerage outfall of Sydney. Changes to the drainage / flow patterns may impact on sediment/contaminant deposition patterns associated with the shipwreck remains. Changes to the environmental conditions in terms of pH and salinity might also have a detrimental effect on the site deterioration rates and needs to be addressed.

5.11 Site Interpretation.

There is potential for heightened public awareness of the existence of the wreck site and the significance of the remains. The site needs to be interpreted in terms of the important role played by large trading and passenger vessels in the development of Australia. The vessel's position within a period of technological modifications in ship design and construction should be highlighted. Dangers associated with sea travel in the mid nineteenth century can also be dramatically documented through the *Dunbar* site, together with a greater appreciation of the importance of shipwrecks and associated remains for research.

5.12 Records Collection.

The records collection (Section 2.2.3) is presently stored at the Heritage Office. The collection is accessible to bone-fide researchers on request.

5.13 Legal Status.

The *Dunbar* site was declared under Section 5 of the *Commonwealth's Historic Shipwrecks Act, 1976* on 24 October 1991. Environment Australia has the responsibility for the administration of the Act while the Director of the Heritage Office is delegated to administer the Act in New South Wales. Activities to disturb the site are not permitted except within the provisions of an Excavation Permit issued by the Heritage Office. Any artefacts removed from the site must be registered with the Director of the Office.

5.14 Custody of Artefacts.

Custody of artefacts removed from the wreck site prior to the declaration of the site as an Historic Shipwreck lies with the individuals holding material. Such articles legally held (ie: with the written permission of the Director, Heritage Office) must be maintained in a manner consistent with the conditions of the permit.

5.15 Site Documentation.

The Heritage Office is responsible for providing archaeological reports to Environment Australia outlining work carried out in regard to the site.

6.0 CONSERVATION AND MANAGEMENT POLICY

6.1 Legal Protection.

The Provisions of the HSA will continue to apply to the site and collections.

6.2 Site Inspection.

Regular site inspections are not required but close liaison with recreational divers should be sought by the Heritage Office. This will encourage up to date informal reports on the condition of the site. Site inspections by specialists should be conducted a) when there are reports of damage/ deterioration of the site or, b) if information is required from the site in relation to research/management issues.

6.3 Environmental Study.

A study of the environmental conditions on site should be implemented to gauge the effects of scouring and deposition routines and other actions affecting the conservation and integrity of the remains.

6.4 Site Integrity.

The site's archaeological significance demands that the site be disturbed only for justified conservation or research purposes by approved conservators and archaeologists. No permit will be given for conservation or for archaeological expeditions to work on the wreck site unless that permit is consistent with the ICOMOS Burra Charter, AICCM Code of Ethics, the AIMA Guidelines and have approval by Environment Australia.

6.5 Protection from Damage.

Surveillance by wreck inspectors, site interpretation and shipwreck educational programs should focus on discovering damage caused by looting and recreational activities. The site should not be used for anchoring onto by visiting divers.

6.6 Proposed Developments.

Proposed developments in the area such as re-direction/expansion of the sewerage outfall of greater metropolitan Sydney should mitigate damage to the *Dunbar* site.

6.7 Site Use.

The underwater site should generally be reserved for passive recreational use. Appropriate informative signage could be maintained above water (site conditions do not support underwater signage methods).

6.8 Education.

This management plan should facilitate the general public gaining access to its heritage and an understanding of that heritage.

6.9 Interpretative Materials.

Public awareness of the site should be increased by the production of broadsheets and other interpretative materials, audio-visuals, lectures, etc. An interpretative plaque should be placed on the shoreline adjacent to the wreck site, in association with that currently established at 'The Gap' on South Head.

6.10 Single Repository.

The Woollahra Municipal Council should be approached regarding the identification of a suitable repository to serve as the principle interpretative centre of *Dunbar* relics, being close to the wreck site. This centre would house artefacts recovered

from the site in association with illustrative/textual material explaining the role of the *Dunbar* in the development of Australia in the mid nineteenth century.

6.11 Scientific Recording.

Private individuals who have removed material from the site should be encouraged to pass this material (loan or otherwise) voluntarily to the NSW Heritage Office for registration and recording. (Requirement of HSA, 1976, Section 9: subsection 1 & 2). All material removed from the site post declaration is in the legal ownership of the Commonwealth Government (HSA, 1976, Section 11).

6.12 Conservation.

Material recovered from, or associated with, the *Dunbar* should be conserved, housed and curated in a professional manner where possible, to ensure its long term conservation and protection.

7.0 IMPLEMENTATION PLAN

7.1 Site Inspections.

Arrangements should be made for periodic informal reports from recreational divers or formal inspection of the site at least every two years by a maritime archaeologist acquainted with the site and collections. Inspections should outline the conditions of the site and be kept in a report on the Shipwreck files at the NSW Heritage Office. Unless specific funds become available, formal inspections would be undertaken by archaeologists from the Heritage Office.

7.2 Environmental Assessment.

A full environmental assessment of the *Dunbar* site to be undertaken including the measurement of:

conductivity of water	pH
predominant weather patterns	swell and storm activity
water temperature	O ₂ saturation
marine organisms, etc.	

These measurements have been initiated and are essential to assess corrosion rates and the overall deterioration of the site. Longer term documentation of site stability in terms of oceanic processes and environment types is required to establish site longevity and possible effects of changes to the currently observed processes. Such studies could be conducted using the facilities of the Manly Hydraulics Laboratory during the Department's Historic Shipwreck Monitoring Program, or by enlisting a relevant practitioner in the field, ie marine engineer, sedimentologist, oceanographer.

7.3 Site Integrity.

The overall site integrity must be preserved, any work carried out on the site should ensure that the maximum information is obtained with the minimum disturbance to the site.

7.4 Site Surveillance.

Frequency of surveillance of the site should be increased. The Heritage Office will promote the security and integrity of the site by suitable notification of the remains to the relevant inspectors under the HSA. Site usage should be assessed by these organisations to establish the frequency and pattern of usage.

7.5 Site Interpretation.

The Heritage Office in conjunction with Woollahra Council, local groups and individuals including local dive shop operators, will encourage the continued production and distribution of pamphlets and other interpretative materials. This will assist in the increased public awareness of the site and its links with the local community. Those interpretative materials presently underway, including archaeological and historical reports, should be seen through to completion with minimum delay.

7.6 Interpretative Materials.

The Heritage Office in association with the Woollahra Municipal Council, should continue to encourage the placement of interpretative materials related to the wreck event. The newly instated plaque overlooking the exact location of the wreck site forms a focus for non-divers, together with existing informative signage at "The Gap".

7.7 Education.

The Education Officer of the Heritage Office, in association with other relevant organisations and individuals, should develop links with local primary, secondary and tertiary institutions with a view to incorporating the *Dunbar* wreck and maritime archaeology generally, into their existing curricula. This might be achieved through the development of special courses, museum and site visits, videos, slide shows and lectures. This activity will:

- promote community involvement with the site and its protection
- expand the interpretation of the site and the history of the vessel
- identify the importance of shipwrecks for research
- promote the Heritage Office's role in regard to the shipwreck resource.

7.8 Repository.

As far as possible all *Dunbar* material will be stored in the new location.

The Woollahra Municipal Council has been approached regarding the suitability of the South Head Signal Station as the principle *Dunbar* interpretative centre. This facility, if developed, could house artefacts recovered from the site together with other relevant informative materials. If the Signal Station is deemed a suitable venue, artefactual material recovered from the site and currently held by private individuals, should be loaned or otherwise allocated to it for display/interpretative purposes. If the Signal Station is not available, the Council should be encouraged to identify an alternative site within the municipality.

7.9 Artefact Register.

The Heritage Office should establish and maintain an artefact register of all material known to have been recovered from the *Dunbar* wreck site. This data is currently being prepared by the Heritage Office as part of an Amnesty held under the HSA. The data could be used in compiling a catalogue of artefacts associated with the *Dunbar* wreck for publication at a later date.

7.10 Scientific Recording.

Where possible, all material thereby located should be scientifically recorded including appropriate photographic and illustrative documentation. Records of this documentation should be deposited at the Heritage Office.

7.11 Conservation Records.

The Department will ensure that records are kept of all work done on the collection for purposes of conservation, research and display.

7.12 Storage/Display.

If the South Head Signal station is accepted as an appropriate venue, all artefacts should be housed indoors where possible in adequate display and storage cabinets, to be conserved and curated in a professional manner consistent with ruling museum standards and the Guidelines and Code of Ethics of the AICCM. The caretakers of the Signal Station complex should become acquainted with the publication, "Guidelines for the Storage and Display of Archaeological Materials" produced for the New South Wales Heritage Office by the University of Canberra (when available).

7.13 Exhibition.

The caretakers of the South Head Signal Station or other approved venue should ensure that a selection of artefacts are utilised for a display which will illuminate the role of the *Dunbar* in the development of mid nineteenth century Australia.

7.14 Access for Research.

The caretakers of the South Head Signal Station or other approved venue should ensure that supervised access is provided to bona-fide researchers interested in the collection who approach it. A register of those researchers should be kept by the approved interpretative venue.

7.15 Private Publications.

Individuals who are pursuing private historical research into the *Dunbar* should be encouraged to publish their findings, in the form of reports and monographs.

7.16 Copyright.

The copyright of the *Dunbar* records collection belongs to the Heritage Office. All original photographs of the site and associated artefacts will be stored in the Office's Maritime Photographic Register (MPR). Duplicates of these photographs should be made available for suitable publication/exhibition purposes.

8.0 REVIEW

The conservation and management policies may need to be modified over time as new information/circumstances arise. The Implementation Plan is therefore subject to re-assessment during the life of the Management Plan. The Management Plan will be reviewed after six years by the Heritage Office following consultation with local diving groups and others interested in the preservation of the site and associated remains.

9.0 REFERENCES

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