

ACKNOWLEDGEMENT OF COUNTRY

AMAC Group and Port Authority of NSW would like to acknowledge the Traditional Custodians of the Woollahra LGA – the Birrabirragal and Gadigal Peoples – and pay respect to their cultural heritage, beliefs and continuing relationship with the land and sea country.

AMAC Group and Port Authority of NSW would also like to acknowledge the post contact experiences of Aboriginal peoples who have attachment to the central Sydney area.

“We pay our respect to the Elders – past, present and future – for they hold the memories, traditions, culture and hopes of Aboriginal Peoples in the area”.

AMAC Group and Port Authority of NSW recognises the role of the registered Aboriginal parties in the management of the Aboriginal cultural heritage sites, landscape features and values of this project.

AMAC Group and Port Authority of NSW would like to thank the Registered Aboriginal Parties for their participation in this project and for their valuable contribution to this Aboriginal Cultural Heritage Assessment which has been enriched by their willingness to share valuable aspects of their cultural knowledge especially in respect of Caring for Country.

CULTURAL WARNING

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Cover Image

*Aerial of the study area (highlighted in red).
QGIS using Six Maps. LRS Online (accessed 03/09/2024).*

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EXECUTIVE SUMMARY

Study Area

Archaeological Management and Consulting Group (AMAC Group) was commissioned in August 2024 by Port Authority of NSW to undertake an Aboriginal Cultural Heritage Assessment Report for the ground remediation of contaminated soils and drainage improvement works for the site known as Hornby Lighthouse, at Lot 415/DP752011 & Part Lot 1/DP605078 Watsons Bay, NSW.

AMAC Group was engaged to complete this Aboriginal Cultural Heritage Assessment Report (ACHAR) in order to address the potential for Aboriginal objects and/or features of archaeological and cultural significance to be present. An Aboriginal Heritage Sensitivity Map was developed for Woollahra in 2021, and the study area is noted to lie within an area of sensitivity. This is due to presence of a registered Aboriginal site, AHIMS Site #45-6-0715, on the sandstone outcrop which includes the Hornby Lighthouse. As a result, the ACHAR has been subsequently prepared to address and manage the potential presence of Aboriginal objects or features of archaeological and cultural significance. All Aboriginal sites and objects are protected by the *National Parks and Wildlife Act 1974*.

Aboriginal Consultation

Consultation for this report is being undertaken in accordance with the *Part 6: National Parks and Wildlife Act 1974: Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010c). Per the guidelines, for the initial consultation stages of this ACHAR, a Research Design and Testing Methodology was sent to all Registered Aboriginal Parties for a mandatory 28-day review period (stage 2). The results of this initial consultation have been included in this document. A final draft copy of the ACHAR has been sent to all Registered Aboriginal Parties for a mandatory 28-day review period (stage 4). All feedback has been incorporated into this document.

Significance

A registered site of significance, AHIMS Site #45-6-0715, is present on the eastern boundary of the site and potential for additional archaeological engravings or objects exists within the proposed work area. An Aboriginal Heritage Impact Permit (AHIP) is therefore required for soil remediation and site drainage works to occur, and the proposed activity is to be monitored by an archaeologist and cultural heritage officers.

Recommendations

The proposed development will disturb the shallow soil profile, which directly surrounds the lighthouse structure. A registered site, which consists of multiple engravings into the exposed sandstone, has been recorded on the eastern boundary of the lighthouse moat. This extends past the foundations of the army and the battery command structures. Whilst AHIMS Site #45-6-0715 is only recorded on the eastern side and was noted not to extend to the lighthouse, a potential for engravings in buried sandstone remains, especially within Archaeological Sensitivity

Zone 3 (ASZ3), where less disturbance has been recorded. Therefore, an Aboriginal Heritage Impact Permit is required for remedial works to occur.

The following recommendations have been formulated after consultation with the RAPs, the proponent, and Heritage NSW for the proposed development to proceed:

- Consultation with the registered Aboriginal stakeholders should continue. Stakeholders have been given the opportunity to comment on the recommendations of this report and these comments have been included in the final issue of this report.
- One registered site, AHIMS Site #45-6-0715, adjoining the study area, was relocated during the archaeological survey. Previously, these were not recorded within the proposed works area, however a potential for further engravings or objects of archaeological significance is present for areas that are buried.
- In accordance with *the Code of Practice* DECCW (2010b) remedial soil and drainage works shall be monitored under an Aboriginal Heritage Impact Permit (AHIP). An archaeologist must be present to monitor key stages of the works when Aboriginal objects and/or features of Aboriginal and cultural significance might be discovered. Aboriginal stakeholders (one of whom must be a land council member) must also be notified and given the opportunity to be present as cultural heritage officers to monitor the works during these key stages. If no engravings or artefacts are identified through the physical examination of bedrock and contaminated soils, then a supervising archaeologist can then confirm that works may continue without further archaeological monitoring.
- The AHIMS Site #45-6-0715 is to be protected by fencing during works. This is to ensure the already weathered engravings are not unnecessarily eroded or damaged further by foot traffic or movement of tools.
- All manual excavation work should use tools that will minimise the likelihood for chipping bedrock. If possible, a 'tools protection area' or 'safe landing area' for tools to be stored when not in use should be made. This is to avoid inadvertent damage to sandstone when moving tools.
- As part of the proposed works, contaminated soils are to be replaced with clean, introduced soil, with a protective geofabric barrier overlying the sandstone. It is recommended that the introduced material consist of non-acidic aggregate and soils. This will ensure the runoff that passes through this material will not erode the sandstone more rapidly.
- Any engravings or artefacts identified will be recorded in accordance with *the Code of Practice* DECCW (2010b) and the Site Card for AHIMS #45-6-0715 will be amended.

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1.0 INTRODUCTION

1.1 BACKGROUND OF THE PROJECT

Archaeological Management and Consulting Group (AMAC Group) was commissioned in August 2024 by Port Authority of NSW to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) and accompanying Aboriginal Archaeological Technical Report (AATR) for the ground remediation of contaminated soils and drainage improvement works for the site known as Hornby Lighthouse, at Lot 415/DP752011 & Part Lot 1/DP605078 Watsons Bay, NSW.

AMAC Group was engaged to complete an Aboriginal Cultural Heritage Assessment Report (ACHAR) in order to address the potential for Aboriginal objects and/or features of archaeological and cultural significance to be present. An Aboriginal Heritage Sensitivity Map was developed for Woollahra in 2021, and the study area is noted to lie within an area of sensitivity. This is due to presence of a registered Aboriginal site, AHIMS Site #45-6-0715, on the sandstone outcrop which includes the Hornby Lighthouse. As a result, the ACHAR has been subsequently prepared to address and manage the potential presence of Aboriginal objects or features of archaeological and cultural significance. All Aboriginal sites and objects are protected by the *National Parks and Wildlife Act 1974*.

This document forms the accompanying Aboriginal Archaeological Technical Report (AATR) as Appendix A of the ACHAR. This AATR presents the results of a site survey that was conducted on the 11th and 21st of November 2024 and provides evidence of material traces of Aboriginal land use. These findings are integrated with other data from the assessment of Aboriginal heritage to support the conclusions and management recommendations outlined in the ACHAR.

1.2 PURPOSE OF THE ARCHAEOLOGICAL INVESTIGATION

The purpose of the Aboriginal archaeological investigation was to identify and record any Aboriginal objects and/or sites that were identified in the ACHAR. The highest potential is predicted in the Archaeological Sensitivity Zone 3 (ASZ3), on the western side of the development. Archaeological Sensitivity Zone 1 (ASZ1) contains previously recorded AHIMS Site #45-6-0715, however no works are proposed in this area, and it is to remain sectioned off during the development. Archaeological Sensitivity Zone 2 (ASZ2) is to be impacted on; however this has a nil to low potential for archaeological material, due to the level of disturbance.

1.3 PROJECT BRIEF

The project seeks to improve the safety of the Hornby Lighthouse site by remediating contaminated soils and reducing water pooling near the base of the structure.

1.4 DESCRIPTION OF THE STUDY AREA

The study site is that piece of land described as Lot 415 of the Land and Property Information, Deposited Plan 752011 and Part Lot 1 of the Land and Property Information, Deposited Plan 605078, within the Woollahra LGA, in the Parish of Alexandria, County of Cumberland.

Lot	Deposited Plan
415	752011
1	605078



Figure 1-1 Aerial photograph with site location outlined in red.
NSW Land Registry Services, Six Maps Viewer, accessed 21/02/2024.

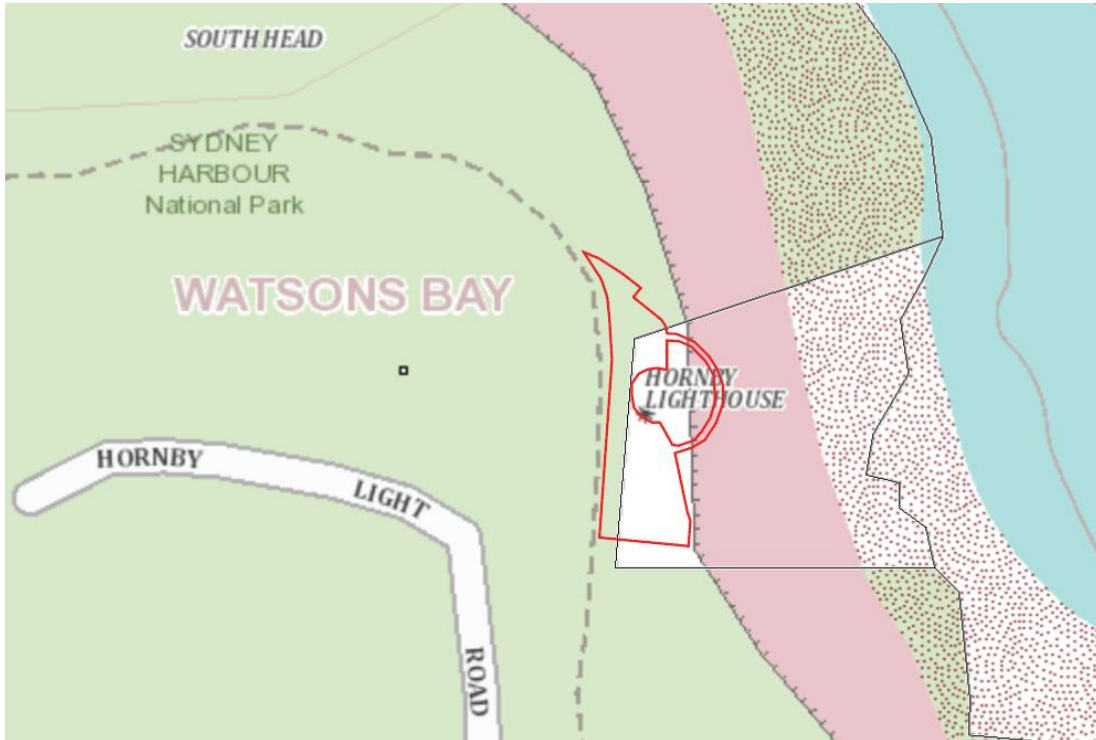


Figure 1-2 NSW map with the study site outlined in red. NSW Land Registry Services, Six Maps Viewer, accessed 21/02/2024.

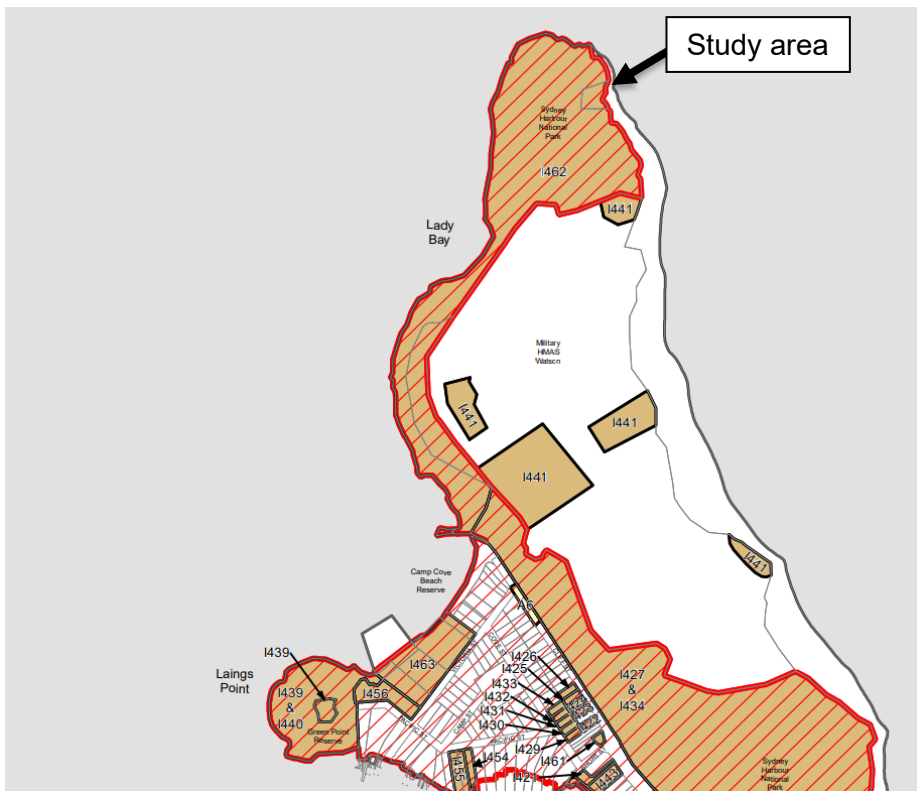


Figure 1-3 Woollahra 2015 LEP Heritage Map. Woollahra Council, Heritage Sheet Map HER_004 (accessed 3/10/2024).

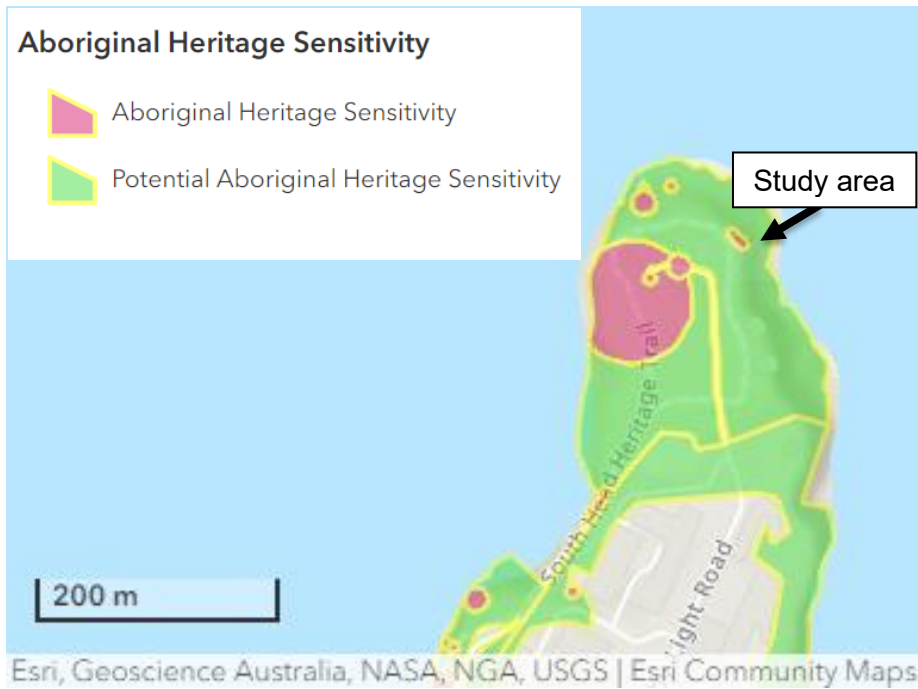


Figure 1-4 Woollahra Aboriginal Heritage Sensitivity Map.
Study area indicated by black arrow. (accessed 3/10/2024).

1.4 OBJECTIVES OF THE ABORIGINAL ARCHAEOLOGICAL TECHNICAL REPORT

The objectives for this Aboriginal Archaeological Technical Report include:

- Engage and consult with local Aboriginal communities, people and organisations in the assessment process and communicate the project details to ensure cultural concerns are addressed.
- Provide evidence about the material traces of Aboriginal land use.
- Integrate findings on material traces with other cultural, environmental and historical findings from the assessment of Aboriginal heritage.
- Assess and determine the impact of the proposed development on any identified items or places of Aboriginal cultural heritage value.
- Use the integrated evidence to strengthen and support the conclusions and management recommendations within the ACHAR, and in consultation with Registered Aboriginal Parties for the management of Aboriginal archaeological and cultural heritage values of the study area.
- Ensure this assessment and project complies with relevant laws and regulations protecting Aboriginal cultural heritage.

This report has been carried out in accordance with the Guide on Aboriginal Cultural Heritage (OEH, 2011).

1.5 THE OVERALL PROJECT FRAMEWORKS

This assessment is in response to heritage advice provided by National Parks and Wildlife Services and Port Authority. A request for an Aboriginal Cultural Heritage Assessment was made when the internal heritage team of Port Authority identified registered Aboriginal sites within the vicinity.

2.0 INVESTIGATOR AND CONTRIBUTORS

2.1 AUTHOR AND FIELD TEAM IDENTIFICATION

The analysis of the archaeological background and the reporting were undertaken by Sarah Hannan (B. Arts, B. Sc., M. Arch Sc.) and Kelly Strickland (B. Arts. Hons.) with contributions from La Perouse LALC, Thomas Dahlstrom, Kamilaroi Yankuntjatjara Working Group and Didge Ngunawal Clan in relation to cultural knowledge and significance.

2.2 ACKNOWLEDGMENTS

AMAC Group would like to thank the following for advice and/or input into this assessment:

- La Perouse Local Aboriginal Land Council
- Didge Ngunawal Clan
- Butucarbin Aboriginal Corporation
- Thomas Dahlstrom
- A1 Indigenous Services
- Amanda Hickey Cultural Services
- Kamilaroi Yankuntjatjara Working Group

3.0 DESCRIPTION OF DEVELOPMENT PROPOSAL

3.1 DESCRIPTION OF PROPOSED ACTIVITY

The proposed activity at the study site consists of ground remediation of contaminated soils and drainage improvement works around Hornby Lighthouse. The contaminated soils form a shallow profile above bedrock and are not considered suitable for archaeological test excavation based on predictive modelling and contamination/ health and safety. The remediation footprint is shown in Figure 3-1 below. Where possible, the drainage works are being designed to avoid impacting on the sandstone bedrock by mimicking natural drainage flow, increasing heritage preservation of the current landscape and placement of a geotextile membrane onto the bedrock surface prior to reinstating the surface profile using clean fill (Figure 3-2). An Aboriginal Heritage Impact Permit (AHIP) will be required for this project.

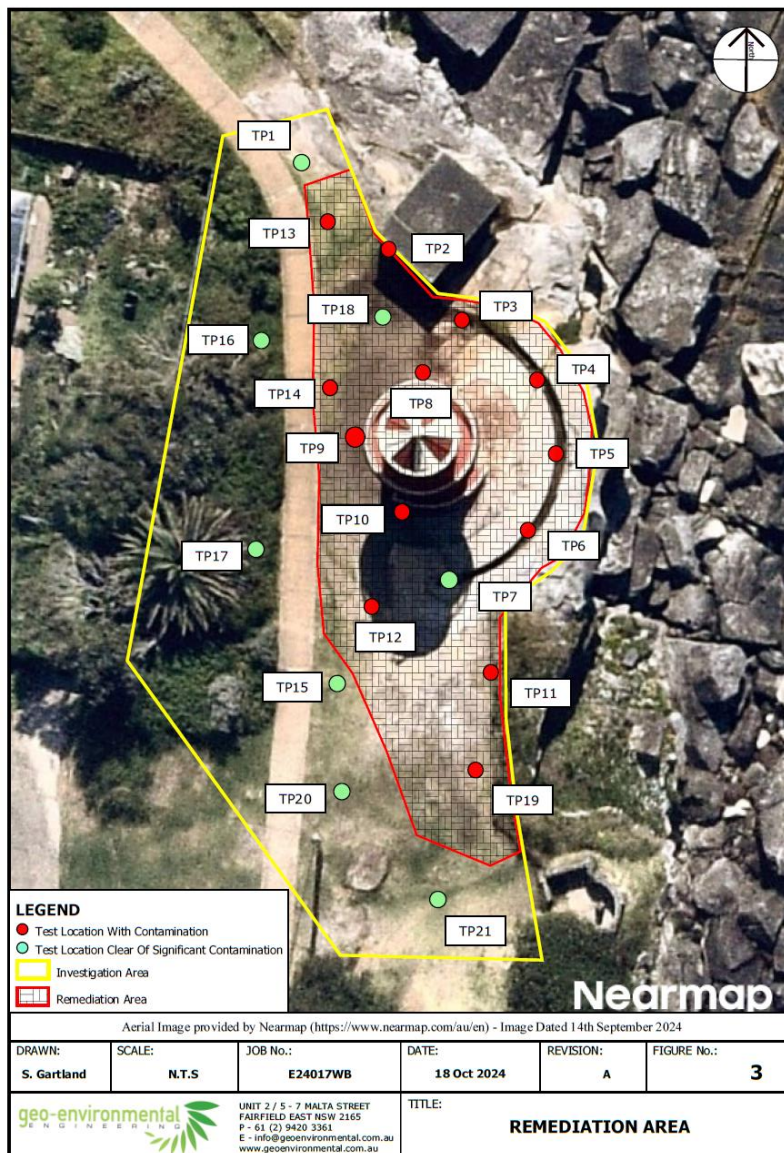


Figure 3-1 Proposed Site Layout Remediation Plan.

Geo – environmental engineering (2024) Figure 3, Rev. A.

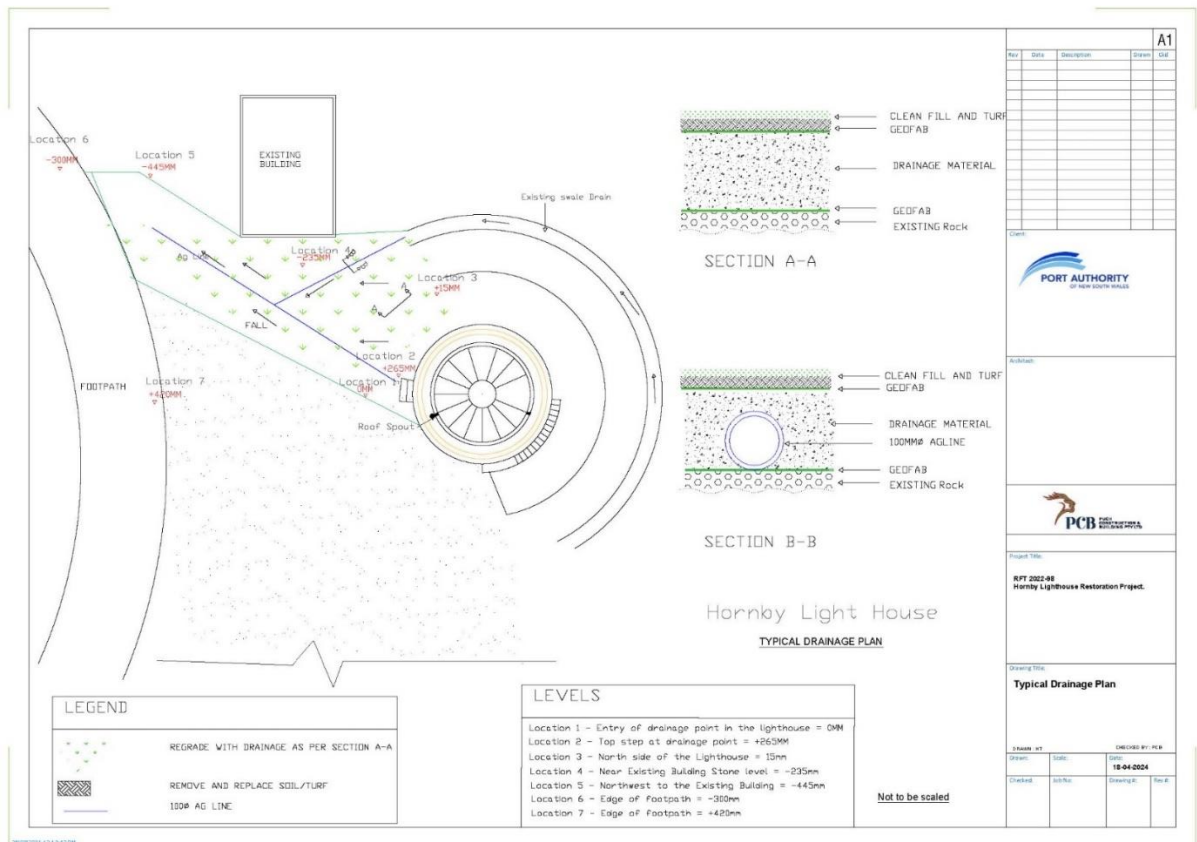


Figure 3-2 Proposed Site Layout Drainage Plan. PCB (September 2024).

3.2 STATEMENT OF IMPACT TO ABORIGINAL CULTURAL HERITAGE

No significant excavation, modification or extension is planned, with the proposed works limited to improving the ground surface surrounding the Lighthouse. The impacts of works consist of replacement of soils and improvement of site drainage. Removal of contaminated soils does have potential to reveal additional engravings, especially within ASZ3 and impacts are to be reduced through monitoring, excavating by hand wherever possible and replacement of soils to avoid weathering. ASZ1 is to be sectioned off during works to avoid unnecessary, inadvertent damage. Following these protocols, impacts are predicted to be nil – low for Aboriginal heritage values.

4.0 BACKGROUND RESEARCH OF ABORIGINAL HERITAGE

This section provides a summary of background research on Aboriginal heritage in the study area, including an AHIMS register search and previous archaeological and heritage studies. For full comprehensive information, consult the Aboriginal Cultural Heritage Archaeological Report (AMAC Group, 2024).

4.1 AHIMS REGISTER

Aboriginal Heritage and Information Management System (AHIMS) is an online database maintained by Heritage NSW. This contains all the previously recorded Aboriginal archaeological sites registered with Heritage NSW.

An AHIMS extensive 1km search was conducted on 03/09/2024 (ID-926978). This search resulted 27 registered site(s). The site card for each site within 1000m in all directions from the centre of the study area was inspected (where available) and an assessment made of the likelihood of any of the sites being impacted by the proposed development.

Table 4.1 AHIMS Search Results

Site ID	Site name	Site status	Site features
45-6-0922	South Head Site D	Valid	Art (Pigment or Engraved)
45-6-2971	South Head (duplicate copy of 45-6-1518)	Valid	Artefact
45-6-0716	South Head Site C; Sydney Harbour National Park;	Valid	Art (Pigment or Engraved)
45-6-0733	South Head Site B; Sydney Harbour National Park;	Valid	Art (Pigment or Engraved)
45-6-0918	South Head Site S	Valid	Art (Pigment or Engraved)
45-6-0920	South Head Site G; Sydney Harbour National Park;	Valid	Art (Pigment or Engraved)
45-6-0921	South Head Site A; Sydney Harbour National Park;	Valid	Art (Pigment or Engraved)
45-6-1666	South Head; Sydney Harbour NP;	Valid	Art (Pigment or Engraved)
45-6-3943	Watson GG1	Valid	Grinding Groove
45-6-3960	Camp Cove Shelters	Valid	Shell
45-6-1665	South Head; Sydney Harbour NP;	Valid	Art (Pigment or Engraved)
45-6-3945	South Head Site T WAH088	Valid	Art (Pigment or Engraved)
45-6-0724	South Head Site L; Sydney Harbour National Park;	Valid	Art (Pigment or Engraved)
45-6-3351	Camp Cove 1 (CC1)	Valid	Shell: 1
45-6-3947	Woollahra Possible Engraving WAH148	Valid	Art (Pigment or Engraved)

45-6-0713	South Head Site F; Sydney Harbour National Park;	Valid	Art (Pigment or Engraved)
45-6-0714	South Head Site H; Sydney Harbour National Park;	Valid	Art (Pigment or Engraved)
45-6-1519	South Head; Sydney Harbour NP;	Valid	Shell, Artefact
45-6-3946	Woollahra Possible Engraving WAH147	Valid	Art (Pigment or Engraved)
45-6-0715	South Head Site E; Sydney Harbour National Park; Hornby Lighthouse;	Valid	Art (Pigment or Engraved)
45-6-1517	South Head; Sydney Harbour NP;	Valid	Shell, Artefact
45-6-1518	South Head; Sydney Harbour NP;(duplicate copy of 45-6-1908)	Valid	Shell, Artefact
45-6-0723	South Head Site M; Sydney Harbour National Park;	Valid	Art (Pigment or Engraved)
45-6-0919	South Head Site K; Sydney Harbour National Park;	Valid	Art (Pigment or Engraved)
45-6-0096	Campcove shelter Watsons Bay	Valid	Shell, Artefact
45-6-2353	Camp Cove 2	Valid	Burial
45-6-3965	Woollahra Possible Shelter WAH125	Valid	Potential Archaeological Deposit (PAD)

The most common site type within this search was art sites which largely included rock engraving, which comprised over 63% of sites. The second most common site type were shelters with shell middens recorded. For comparison, Coast History and Heritage’s (2021) Woollahra LGA study identified art sites (engravings in the open) as the most common site, followed by living places (rockshelters). Notably, this study had 34 rockshelter sites, however these were separated by site use – i.e. if they were associated with midden material or contained artworks.

Table 4.2

Site Feature	Frequency	Percentage*
Art (Pigment or Engraved)	17	63
Shell, Artefact	4	15
Shell	2	7
Artefact	1	4
Burial	1	4
Grinding Groove	1	4
Potential Archaeological Deposit (PAD)	1	4
Total	27	100

*Percentages have been rounded to the nearest whole number.

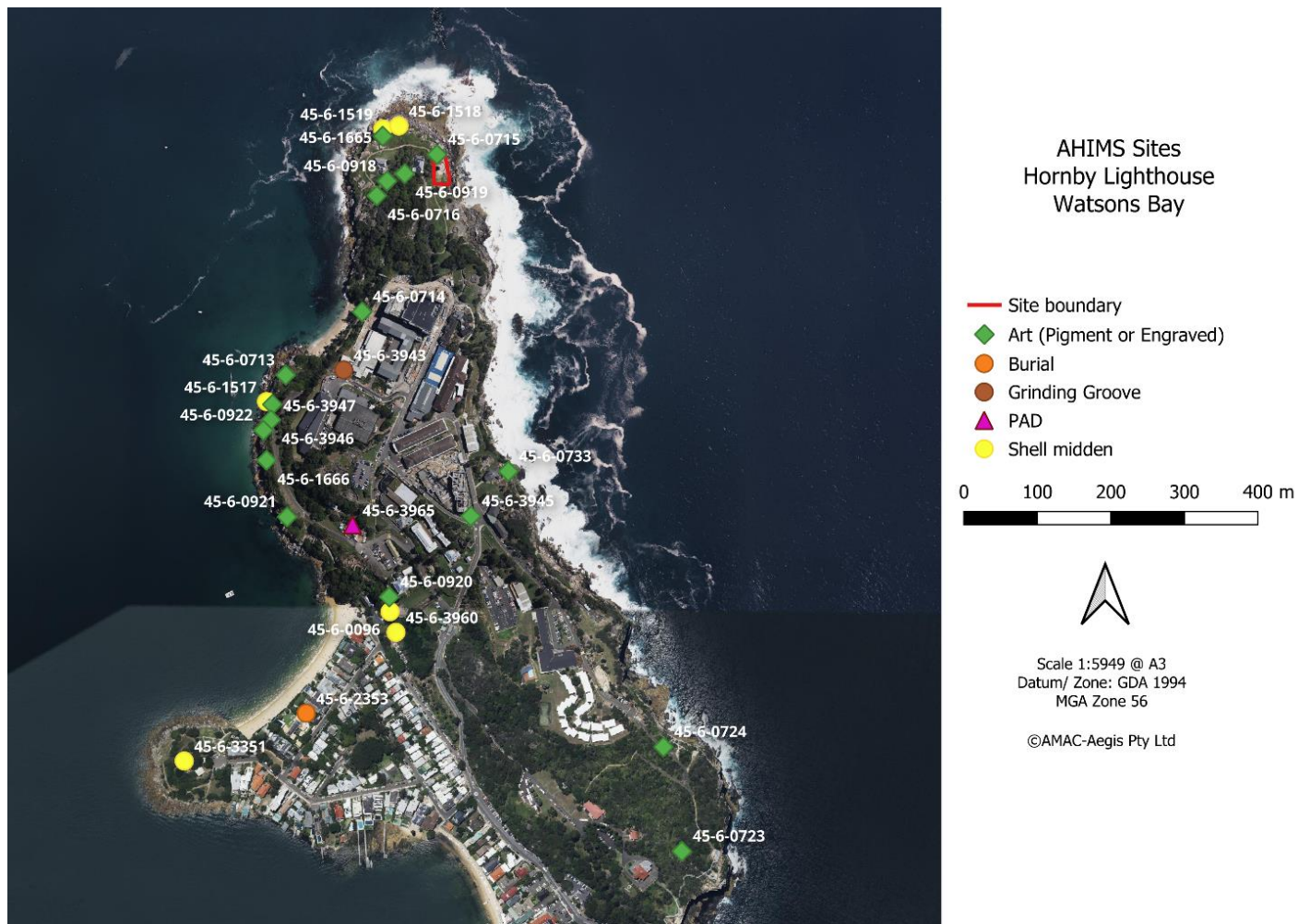


Figure 4-1 AHIMS search results within 1km of the study area indicated in red. AMAC Group. Six Maps. LRS Online (accessed 02/09/2024).

4.2 PREVIOUS HERITAGE STUDIES WITHIN THE STUDY AREA

As part of the research process of this report, the library of archaeological assessments, which is maintained by Heritage NSW Offices was searched. Presented below are summaries of assessments which have been carried out within the study area. This list is by no means exhaustive and is merely a representative sample of the most recent archaeological activity within the vicinity of the study area.

Haglund, L., (1984) An assessment of the prehistoric heritage of Woollahra. Prepared for Hughes Trueman Ludlow on behalf of Woollahra City Council.

The Woollahra LGA was assessed in 1984 for Aboriginal archaeological sites to inform planning and development across the area. This study utilised ethnographic, archaeological and environmental resources, with no site inspections conducted. This resulted in the identification of 33 registered sites. Predictions about site types and landforms were made. Water frequently impacted the likelihood of sites, with middens commonly located near marine foreshores and grinding grooves commonly near creeks and minor waterways. Camp sites were observed on beaches, in rockshelters fronting the water and on well drained areas close to smaller tributaries. Ceremonial sites could not be predicted in this study, due to the lack of information. Art sites such as paintings, drawings, stencils and engravings were common within rockshelters, and engravings could also be present on exposed rock platforms.

NSW Government Architect's Office (2008) South Head Stage 1 Conservation Management Plan. Report to Department of Environment and Conservation.

This CMP was designed to maintain and enhance the heritage values within Sydney Harbour National Park, South Head. It also aimed to inform management, interpretation, conservation and use of the area. The broader study site was divided into five precincts; Inner South Head, Lady Bay, Camp Cove, Gap Bluff and Green Point. The study area is discussed within the Inner South Head Precinct. South Head was determined to have state significance for the Aboriginal and historical sites present and national significance due to the association with Australia's maritime and defence history. Local significance is attributed to the site for aforementioned sites, in addition to the presence of native flora and fauna, with some endangered species noted.

Dominic Steele Consulting Archaeology (2009) Waverley Aboriginal Cultural Heritage Study. Report to Waverley Council.

This 2009 report aimed to research and identify Aboriginal cultural heritage within the Waverley LGA to inform recording, management and future development. Eleven sites were nominated for inclusion within the Waverley LEP 2010. Site types consisted of rock engravings, open campsites, rockshelters with potential for subsurface occupational deposits and shelters with art motifs. Areas with intangible values were additionally reported. It was recommended that community consultation should be undertaken for all future developments to ensure sites are appropriately identified and managed.

Office of Environment and Heritage (OEH) (2013) Nielsen Park, Sydney Harbour National Park: Conservation Management Plan. Report for the NSW National Parks and Wildlife Service.

In 2013, a conservation management plan was established to address the long-term assessment of Aboriginal, historical and natural values of Nielsen Park. This is located between Vaucluse Bay and Rose Bay, southwest of the current study area. The reserve is comprised of approximately 20 hectares of land and was determined to be of state significance. Six Aboriginal sites were located during a site inspection, however an additional three could not be identified. Management practices to individual sites (both Aboriginal and historical) were outlined.

Comber Consultants (2017) Aboriginal Archaeological Assessment: Gap Bluff Centre, Watsons Bay. Report to Beaucon Pty Ltd.

An assessment of six existing buildings within the Sydney Harbour National Park were assessed for adaptive reuse in 2017. This identified known sites at 33 Cliff St and Constable Cottage, Camp Cove and at Green Point Cottage. No further investigation was recommended at Gap Bluff Cottage, Officers Mess or the Armoury. The Aboriginal sites consisted of middens and rockshelters.

Coast History & Heritage (2019) Aboriginal Cultural Heritage Assessment Report: The Royal Sydney Golf Club, Back of House Project, Rose Bay NSW, Woollahra LGA. Report to The Royal Sydney Golf Club.

In 2019, the Royal Sydney Golf Club, was assessed for extension of the clubhouse. An Aboriginal Cultural Heritage Assessment Report and associated test excavation were required, as previous studies identified more than 5000 artefacts and human remains in the adjacent area (Jo McDonald Cultural Heritage Management 2010). Analysis of historical records in this earlier study concluded that the area was utilised for ritual combat. The 2019 Clubhouse site had disturbance from previous clubhouse construction activities that were performed in 1904-5. Artefacts and remains were therefore expected to the north of the structure and within the first 50 to 100cm below the turf. The whole of the study area was registered as an area of archaeological sensitivity under AHIMS Site #45-6-3745.

Coast History & Heritage (2020) Aboriginal Cultural Heritage Assessment Report: Kincoppal-Rose Bay School, 1A and 2 Vaucluse Road, Vaucluse, Woollahra LGA. Report for the Kincoppal-Rose Bay School.

The Kincoppal Rose Bay School campus was assessed for redevelopment. This was proposed for the western portion of the site. Background information suggested that the majority of the site was located upon a steep slope, and therefore had a low potential for Aboriginal sites. This was inconsistent with one area of the site where AHIMS Site #45-6-3754, a rockshelter was identified.

Coast History & Heritage (2020) Due Diligence Aboriginal Heritage Assessment: Tramway Path, Gap Park, Watsons Bay NSW. Report to Capital Projects and Woollahra Municipal Council.

Coast assessed the installation of a tramway path in Gap Park, Watson Bay. Gap Park is approximately 4.6 hectares and borders the Pacific Ocean. 67 sites were located within a 4km² area, however only 5 of these were located within 500m of the study site. The most common site types were rock engravings followed by

rockshelters with middens and/ or artefacts. There were no previously recorded sites within the study area, however a site inspection identified one possible rockshelter and one possible engraving site. Where possible, subsurface impacts are to be minimised, with temporary protective fencing to be erected around the shelter.

AMBS Ecology and Heritage (2024) Aboriginal Heritage Due Diligence Assessment: Q Station. Report to North Head Sydney Pty Ltd.

A Due Diligence Assessment was completed at the former Quarantine Station, located at 1 North Head Scenic Drive Manly. This is approximately 2km northwest of the current study area. This report aimed to determine if current Station activities had the potential to damage Aboriginal heritage items. No construction was proposed for the site. Twelve sites were located within the study area, with an AHIMS Search showing 73 sites within wider area (GDA94 Zone 56, Eastings: 340000 - 343700, Northings: 6255900 - 6260000). Considering record duplication and recordings of 'Not a Site', this was reduced to 66. The most common site type was shelters with middens, followed by art sites. It was determined that no further Aboriginal cultural heritage assessment is required, however preexisting site management and protections should be followed. Staff and subcontractors were recommended to undertake cultural heritage awareness training, all future site works are to be subject to Aboriginal heritage assessments and consultation with stakeholders should be performed.

4.2.1 Summary of Archaeological Assessments

Watson Bay and the surrounding suburbs of Vaucluse and Rose Bay have been significantly developed in areas, with early impacts from European settlement and land modification evident. Developments in this area are characterised by large residential and educational structures. The area does however have areas reserved as public trails and parks, which has aided in protection of sites.

Many buildings were constructed prior to legislative requirements for archaeological investigation; however several sites have been noted in ethnographic resources, or identified in later renovations. This has resulted in a substantial number of sites known from the area. Many of these are within a close vicinity to the foreshore or include marine resources. Common site types for this area include middens, art sites and occupational deposits. Burials have also been identified within sand dunes. Archaeological evidence and ethnographic information support that occupation was regular and repeated.

The Hawkesbury soil landscape on which the study site occurs is characterised by shallow profiles, especially on exposed landforms. Due to the absence of sandstone shelter structures, the most likely site type for this landscape was determined to be art sites. Artefacts and shell midden material may be present upon the site, however erosion across the shallow soils may have impacted their preservation.

In summary, the practical ramifications of the archaeological assessments above suggest that art sites, middens or occupational sites such as rockshelters are the most likely site type for the area. Due to the rapid settlement and shallow soil profiles present, a large amount of archaeological evidence is expected to have been developed over or removed. Engravings are known within the area, and in some cases, these have been protected.

5.0 ENVIRONMENTAL CONTEXT

This section provides a summary of the environmental context of the study area. For full comprehensive information, consult the Aboriginal Cultural Heritage Archaeological Report (AMAC Group, 2024).

5.1 TOPOGRAPHY AND LANDFORMS

The study site is located within the wider township of Watsons Bay and represents a partly built-up area and partly modified landscape. Referred to as the Inner South Head Peninsula (NPWS), it is situated within South Head National Park and adjacent to the South Head Lighthouse Walking track. Its position upon the South Head plateau means the soil landscape has high wind exposure and subsequent erosional activity. Its dominant landform is a ridgeline, the site's north and east boundaries form the cliff face of that ridge. Dominant European land use in this location has been predominantly activities associated with operation and maintenance of Hornby Lighthouse.

The study area lies over one topographic zone: the Hawkesbury (ha) soil landscape. This consists of rolling to very steeply inclined hills upon Hawkesbury Sandstone. Slope gradients vary between 25 and 70%. Valleys, crests and ridges are narrow with local relief between 40 – 200m and ridges >300m wide. Approximately 50% of the ground surface is comprised of cobbles and boulders. Rock outcrops can appear as broken scarps and horizontal benches up to 10m in height.

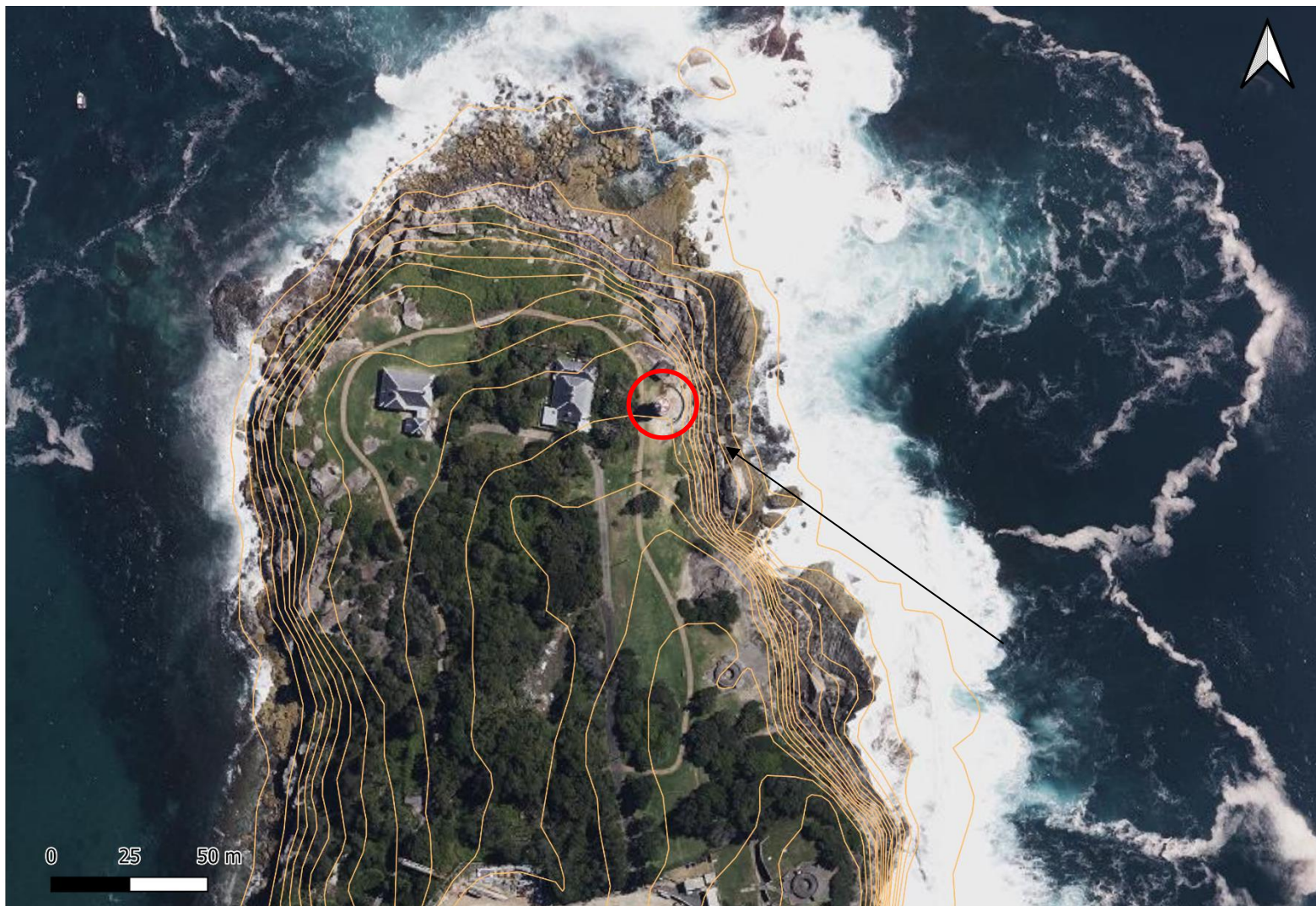


Figure 5-1 Aerial photograph with overlaid 2m contour lines. General site location outlined in red with black arrow. NSW Land Registry Services, Six Maps Viewer, accessed 04/12/2024.

5.2 GEOLOGY AND SOILS

The Hawkesbury colluvial landscape is located upon the Hornsby Plateau, the Hawkesbury Valley and the Macdonald Ranges. The geology is dominated by medium to coarse grained Hawkesbury Sandstone, with minor laminate and shale lenses. Soils are typically shallow.

This soil profile has low fertility, high permeability. Rock outcrops, and steep slopes contribute to the highly erosional nature of this soil landscape.

Table 5.1 Description of dominant soil material.

Dominant Soil Material	Soil Horizon	Description
ha1	A1 Horizon	Loose, coarse quartz sand. Colours may vary between yellow orange to a brownish black when a high level of organic material is incorporated. This is a sand to sandy loam topsoil with a porous fabric and single grained structure.
ha2	B or C Horizon	Earthy, yellowish brown sandy clay loam. This generally occurs as a subsoil in association with sandstone bedrock. Material may be clayey sand to sandy clay loam, with roots and charcoal absent. Iron plated sandstone, gravels and stones are however common. Colours include yellow orange, yellow brown and bright yellow brown.
ha3	B or C Horizon	Pale, strongly pedal light clay. Commonly associated with shale lenses and Hawkesbury Sandstone. Colours can range from bright reddish brown to a light grey with red, orange and grey mottles frequently recorded. this material may be between a fine sandy clay loam to a medium clay. Roots and charcoal are rare to absent, but stratified ironstone gravels are common.

Table 5.2 **Expected Hawkesbury soil profile depth based on landform site type.**

Crests and Ridges
<ul style="list-style-type: none">➤ up to 20 cm of loose, quartz sand (ha1-A1 horizon) overlies either;➤ sandstone bedrock or;➤ <30cm of earthy, yellowish-brown sandy clay loam (ha2- B/C subsoil horizon).
<p><i>N.B. soil boundaries are gradational, and texture increases with depth.</i></p>

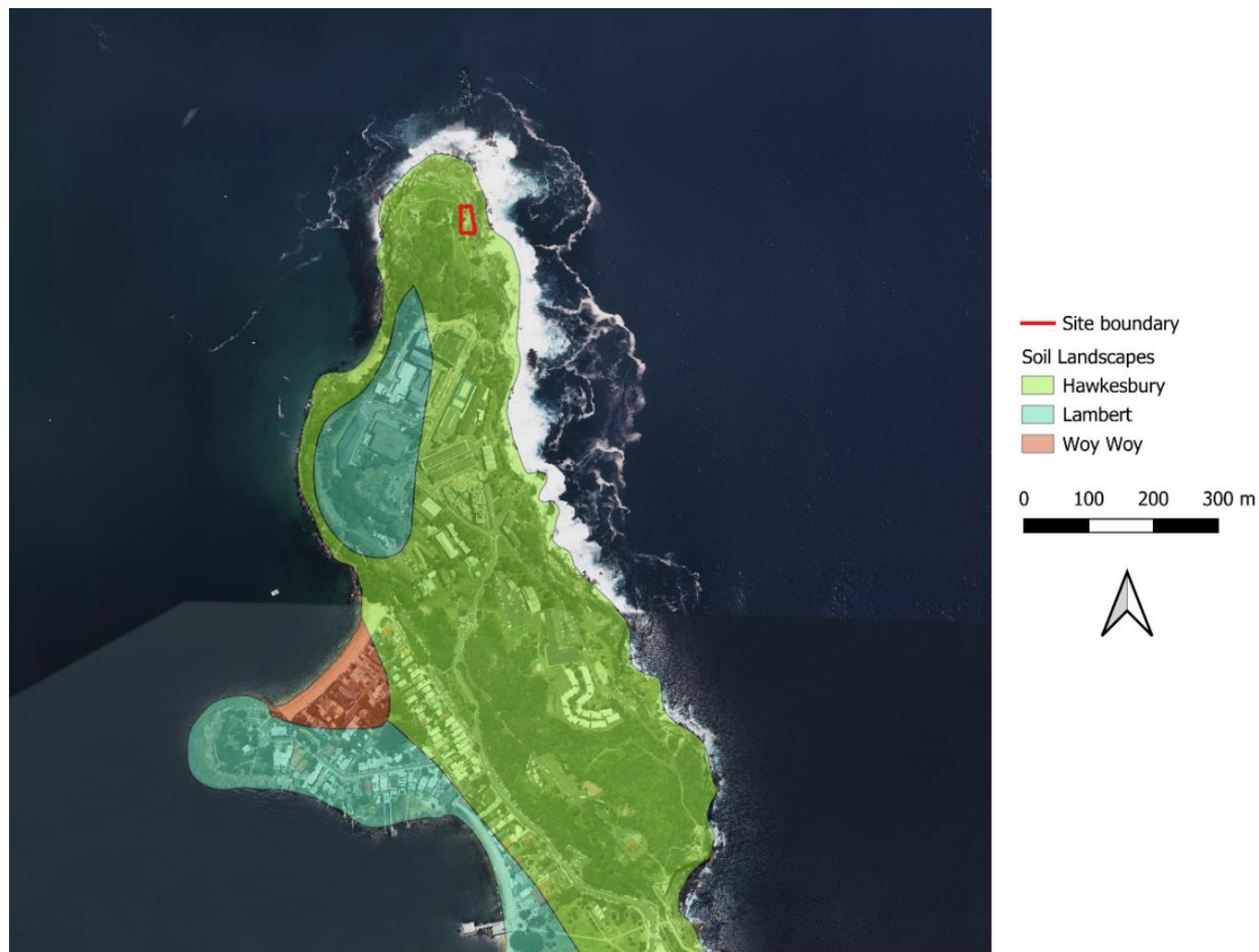


Figure 5-2 Location of the study area outlined in red on soil map.
NSW Government Sharing and Enabling Environmental Data in NSW (SEED), accessed 02/09/2024 and QGIS.

5.3 VEGETATION

The study site itself is largely free of vegetation, however the wider area has been partially modified and includes a variety of introduced and noxious types of vegetation. The vegetative communities have retained areas of tall open forest (wet sclerophyll) and closed forest (rainforest); however, the most common plants are open woodland (dry sclerophyll). Crests and ridges, such as the study site usually contain these low open woodland species. This includes scribbly gum (*E. haemostoma*), old man banksia (*Banksia serrata*), red bloodwood (*E. gummifera*), brown stringybark (*E. capitellata*) and narrow leafed stringybark (*E. oblonga*).

5.4 WATERCOURSES

There are no minor tributaries in the vicinity of the study site, rather the north and east boundaries are bordered by the Eastern Channel and Tasman Sea. The study site sits at approximately 10-11m elevation; the eastern boundary contains a steep cliff face; the northern boundary contains a more gradual slope towards the water's edge with rocky outcrops. More accessible locations to the water's edge such as Lady Bay (200m southwest) and Camp Cove (700m southwest) are within walking distance from the study site.

These water bodies are known to have channelled Aboriginal activity to this area as an important resource within the landscape.



Figure 5-3 Topography map indicating watercourses in blue. Study site in red circle with black arrow. Sydney Heads 1: 25 000 (NSW Gov. Spatial Services 2017).

6.0 REGIONAL CHARACTER

6.1 HISTORY OF LAND USE AND DISTURBANCE FACTORS

This section offers an overview of the historical land use by both Aboriginal and European occupants on the study area, along with the factors that have contributed to disturbances. For full comprehensive information, consult the Aboriginal Cultural Heritage Archaeological Report (AMAC Group, 2024).

6.1.1 Aboriginal Land Use

The study area lies in a resource rich zone which had many materials that may have been exploited on either a regular or repeated basis. Reliable access to fresh water may have been present nearby to the study area, with creeks known to flow down into the harbour (Coast History and Heritage 2021 pg. 27). These were later modified to accommodate European development and services.

Sites containing fresh water and sedentary food sources, coupled with the presence of other resources which may have been exploited or available on a seasonal basis, would suggest that Aboriginal land use of the study area was regular and repeated, with this reflected in the archaeological record. Concentrated and repeated occupation may be represented in areas that have reliable access to water and foods sources. These areas will possess a high archaeological potential (Goodwin 1999).

The study area is within close proximity to the marine foreshore of the Tasman Sea. A range of fish and birds may have been caught in traps, fished from canoes or speared. Whilst rockshelters are more commonly identified as landscapes that preserve occupational evidence, beaches, dunes, lagoons, mudflats and swamp areas would have been well utilised (Attenbrow 2010). Additional resources included shellfish, oysters, large game such as kangaroos, wallabies and possums (AMBS 2024). Multiple parts of plants, including tubers and roots could be used as food sources or as a raw material for tools (Comber Consultants 2008, OEH 2013).

6.1.2 European Land Use and Disturbance

Background research indicates the study area was rapidly impacted by European settlement from 1788, with Watson Bay being the landing site for the ships fleet. Unlike the wider suburb, significant disturbance and ground alterations have not occurred as extensively upon the west or north of Watson Bay. Much of this land was reserved for military or public use.

Historical records indicate the site was part of a 150-acre allotment of crown land for public use, as listed in 1843. An illustration by Joseph Lycett shows little construction of accessways or structures at this time (Figure 6-1). In 1857, two ships – *the Dunbar* and *the Catherine Adamson* were wrecked close to the study area, prompting the construction of the Hornby Lighthouse (Figure 6-2). This was first used in 1858 and associated services, such as lightkeepers cottages were also constructed. In 1877, threats of conflict led to reservation of the site for military use. This continued into the early 20th century, with defence personnel occupying the lightkeepers structures, after the lighthouse became electric in 1933. While

ownership of the study area has changed across the last century, little modification within the study area has been observed, as shown in historical aerials (Figure 6-3 - Figure 6-6). Some modification of access routes and vegetation in the wider area, have however been developed.

As the site is located upon a cliffs edge, exposed bedrock and shallow soil profiles are predicted. Any construction upon the site is therefore thought to have significantly impacted potential for Aboriginal objects and / or deposits. Rock engravings have been identified at the study area (AHIMS Site 45-6-0715). Whilst weathering has been recorded, these sites have a higher preservation rate than site types such as middens or artefact scatters.

In light of this, and in the context of the information provided about the land use of the site, its proximity to major tributaries the following has been predicted.

Moderate /high disturbance to ground surfaces from historical land use: Sub-surface Aboriginal objects with potential conservation value have a low probability of being present within the study area. Contrastingly, there is a high potential for rock engravings and art to remain.



Figure 6-1 Joseph Lycett's 1824 'View of the Heads'
Approximate location of study site indicated by red arrow.
State Library of NSW, DL F82/16 pl.9.



Figure 6-2 c. 1885 photo of Hornby Lighthouse.
National Library of Australia.



Figure 6-3 1943 aerial.
NSW Historic Imagery.



Figure 6-4 1965 aerial.
NSW Historic Imagery.



Figure 6-5 1986 aerial.
NSW Historic Imagery.



Figure 6-6 2005 aerial.
NSW Historic Imagery.



Figure 6-7 Disturbance map.
Study area outlined in navy blue, with orange indicating moderate disturbance and red indicating high disturbance.

6.2 ARCHAEOLOGICAL PREDICTIVE MODELS

An archaeological predictive model is a tool that indicates the probability of finding an archaeological site within a specific type of landscape. Predictive modelling is an adaptive process which relies on a framework formulated by a number of factors, such as the use of local land systems, the environmental context, archaeological work and any distinctive sets of constraints that would influence land use patterns. This is based on the concept that different landscape zones may offer different constraints, which is then reflected in the spatial distributions and forms of archaeological evidence within the region (Hall and Lomax 1996). Umwelt (2004), has identified environmental – archaeological relationships which contribute to the mapping and modelling of archaeological sites, such as:

- Watercourses and ridgelines impact people’s movement throughout the area
- Accessibility and visibility impact choice of occupational sites
- The presence of consistent resources, especially watercourses, significantly impact the potential for occupation and land use
- The landscape in which occupation occurred additionally impacted the potential of sites surviving
- European land-use practices additionally affect the potential for site survival.

Based on these factors it is possible to provide a predictive statement for the probability of encountering Aboriginal archaeological sites and/or places that relate to the study area.

Table 6.1 Types of Aboriginal archaeological sites and their likelihood with the study area.

Site Type	Description and Potential Location	Likelihood
Open Artefact Scatters	The study site is located upon a sandstone plateau. Whilst this location provides expansive views of the area and rock art indicates use of the area, the likelihood of artefact scatters preserving within the shallow soil profiles is low.	Unlikely
Isolated Artefacts	Similarly, the shallow soil profile reduces the likelihood of isolated artefacts remaining within the study site.	Unlikely
Grinding Grooves	Sandstone platforms are located within the study area, and these have known Aboriginal modification, with multiple art engravings recorded. Locating grinding grooves is determined to be less likely than identifying further engravings, with a significant drop to the water reducing the value of the outcrop as a tool modifying area.	Unlikely
Stone Resource Sites	The Hawkesbury soil landscape is dominated by sandstone and shale geology. Therefore, rock outcrops of suitable flaking material are not expected within this study area.	Unlikely
Scarred Trees	The soils across the study area are shallow and significant vegetation has been cleared from the plateau. No trees of sufficient age with potential for scarring/modified are known to be present within the study area.	Unlikely

Sandstone Shelters	Sandstone platforms are apparent, however no overhangs for shelters are present. These were not recorded in previous assessments of the engraving sites upon this headland, and therefore are not thought to be removed in the creation of the Lighthouse.	Unlikely
Burials	The Hawkesbury soil profile is extremely shallow across exposed South Head Plateau and the site has been further modified for lighthouse construction and access. Burials have been identified in the wider area, however these are generally located within sand dunes, which are not present within the study area.	Unlikely
Ceremonial Sites	There is an unknown potential for ceremonial sites. Consultation with relevant Aboriginal parties and individuals is presently taking place.	Possible that Ceremonial/Social sites will be present within the study area

6.2.1 Summary of Predictive Model for the Study Area

In summary, the predictive modelling indicates that the most likely site type is engraved art sites. This is due to the location upon a plateau within the Hawkesbury soil landscape. With expansive views across the area with both marine and terrestrial resources available, this area could have been well occupied. Erosion would have significantly impacted the likelihood many site types, such as middens or artefacts. Further inland, in the west of the study area, relatively deeper soils may be located, due to less foundational modification for the lighthouse structure, and protection from weathering. The west therefore maintains the highest potential for archaeological material.

7.0 FIELD METHODS AND RESULTS

As part of the ACHAR development process, a Research Design and Cultural Heritage Methodology document was developed by AMAC Group and supplied to all registered stakeholders for review and comment in September 2024. An archaeological site survey methodology was developed per the guidelines under the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010b).

The methodology was supported by those registered stakeholders, and no modifications were proposed during the statutory review period. Refer to the Aboriginal Cultural Heritage Assessment Report for a detailed description of community consultation for this project.

7.1 ARCHAEOLOGICAL SITE SURVEY

The field survey was undertaken on two days – the 11th and the 21st of November 2024 as not all groups were available to attend on the first day. The same program was followed for each survey. On the 11th of November, 2024 the archaeological survey was undertaken by Benjamin Streat and Sarah Hannan of AMAC Group, with a member from Didge Ngunawal Clan, Thomas Dahlstrom Heritage Consults and Kamilaroi Yankuntjatjara Working Group. On the 21st of November 2024, the archaeological survey was undertaken by Kelly Strickland and Sarah Hannan of AMAC Group, with a senior officer from La Perouse Local Aboriginal Land Council. Two representatives from Port Authority, Sam Isaacs and Miguel Frohlich, attended both surveys.

The study site was inspected on foot. The majority of the study area could be assessed, with little vegetative cover present. Shallow, eroding soils were noted to be present.

7.1.1 Survey Method and Strategy

All visible landscape units were inspected as well as photographed where informative details as to land use and disturbance could be ascertained. Information was also collected regarding land surface and vegetation conditions as encountered during the survey.

The following broadly outlines the methods adopted:

- Field inspections will be carried out on foot.
- Highly disturbed areas indicated on plans will be inspected to verify the level of disturbance and depending on level of disturbance will be included or excluded from the additional survey.
- Undisturbed areas will be inspected in as much detail as the remaining surface coverage and environment will allow and the results will be recorded.
- Areas of exposed ground such as tracks or eroded surfaces which allow good surface visibility will form the focus of the field inspections.

The description of a survey coverage in accordance with Heritage NSW guidelines (DECCW 2010, 13), includes landforms units, the total area surveyed within that landform unit and a calculation of the level of visibility and

exposure. To quantify this, Heritage NSW has defined visibility and exposure as follows:

Visibility is the amount of bare ground (or visibility) on the exposures which might reveal artefacts or other archaeological materials. It is important to note that visibility, on its own, is not a reliable indicator of the detectability of buried archaeological material. This like vegetation, flat or leaf litter, loose sand, stone ground or introduced materials will affect the visibility. Put another way, visibility refers to 'what conceals'.

Exposure is different to visibility because it estimates the area with a likelihood of revealing buried artefacts or despoils rather than just being an observation of the amount of bare ground. It is the percentage of land for which erosion and exposure was sufficient to reveal archaeological evidence on the surface of the ground. Put another way, exposure refers to 'what reveals' (DECCW 2010, Appendix A).

7.1.2 Site Survey Results

Surveys started with an overview of proposed works by Port Authority. In summary, soil remediation included removal of contaminated material surrounding the lighthouse using hand tools or small machines, geotextile fabric being laid down, and clean imported fill added. Drainage work consisted of altering an area where water pooling currently occurs and leaving the surrounding run off zone so this can continue as naturally as possible. The extent of impact zones were walked, with exposed rock and thin soil profiles noted. In regard to mitigative measures, it was requested that the Land Council and other RAPs be present to monitor key stages of works, to enable identification of any Aboriginal engravings or artefacts present. It was requested that a non-acidic fill be used, as sandstone can erode more quickly with acidic soils. The potential of archaeological material was discussed - RAPs noted that additional engravings may be present on the sandstone currently buried and the senior officer from La Perouse LALC additionally noted that artefacts may have been moved down the hill and lodged between sandstone features or buried under the current profile.

Surveys on both the 11th and 21st then attempted to relocate AHIMS Site #45-6-0715, which consisted of multiple engravings. The direct impact zone for the lighthouse works was noted to not contain any visible engravings. The first survey identified engravings further away from the lighthouse, on South Head Heritage Trail which leads from the Camp Cove Carpark. These consisted of multiple fish stencils. The second survey determined that these were modern engravings, and AHIMS Site #45-6-0715 was directly located on the top surface of the natural rock ledge surrounding the lighthouse moat. These were relocated with the site card; however, most were faint and weathered. The La Perouse member had been involved in previous assessments of the site and could therefore relocate elements of multiple figures.

Table 7.1 Survey coverage of study area as per DECCW 2010.

Unit	Landform	Area (sq. m)	Visibility (%)	Exposure (%)	Effective Coverage (sq. m)	Effective Coverage (%)
1	West of Lighthouse	170m ²	60%	20%	20.4 m ²	12%
2	East of Lighthouse	90m ²	60%	60%	32.4 m ²	36%



Figure 7-1 View from the base of the Lighthouse, looking southeast.
AMAC Group, 11/11/2024, Image No. 091025.



Figure 7-2 View of ground exposure. Located west of Lighthouse, looking north.
AMAC Group, 11/11/2024, Image No. 091026.



Figure 7-3 The rock platform shown in the bottom right quadrant has remnant engravings. Located near the battery command structure.
AMAC Group, 11/11/2024, Image No. 095617.



Figure 7-4 View northeast across the rock platforms to North Head. Taken from the northmost point of the AHIMS Site # 45-6-0715. AMAC Group, 11/11/2024, Image No. 095609.

7.2 TEST EXCAVATION

No test excavation was proposed at the site, due to the extremely shallow soil profile. Instead, monitoring of soil remediation and drainage works was proposed. This was recommended as engravings were determined to be most likely and soils were contaminated with lead. Monitoring would enable specialist removal of this hazard, without compromising identification of Aboriginal objects/ features.

8.0 ANALYSIS AND DISCUSSION

8.1 RESEARCH CONTEXT

The research questions are based on the information that has been gathered from previous excavations within the vicinity of the study area as well as making an attempt to place the site in a regional context and offer some explanation for the activities that may have taken place within the study area.

8.1.1 Archaeological Research Questions

Intangible Significance

1. Does the study area hold any social, spiritual or cultural values? If so, what are these values and are they confined to particular parts of the study area?
2. Are unrecorded places or resources of cultural, natural or archaeologically significance present within the study area? If so, where are they located?
3. Are there any traditional stories or legends associated with the study area?
4. Are there any gender specific cultural values associated with the study area which cannot be raised in general meeting? If so, how would the Aboriginal stakeholders like these managed?

Tangible Remains and Significance

1. Are there any recollections of Aboriginal people living within the study area?
2. Is there any information to suggest the presence of burials within the study area?

Site Management

1. Will the proposed development harm the identified cultural heritage and archaeological values of the study area? What strategies could be used to manage the cultural and archaeological values of the study area?
2. Do the participants have any concerns not yet raised by these questions?

8.1.2 Response to Research Design Questions

One written response was received in relation to the above questions. This noted that the whole of the study area was highly significant to them. This was further supported by comments from stakeholders on site, through discussions of nearby resources, the likelihood of gatherings at and above the site and the more recent associations with European arrival. These statements are strengthened by the presence of the engravings.

8.2 ARCHAEOLOGICAL ANALYSIS AND DISCUSSION

The analysis of the environmental landscape, Aboriginal land use, archaeological context and predictive modelling indicated potential for Aboriginal archaeological evidence in the form of open artefact scatters or isolated artefacts to be present within less disturbed areas of the study site and in the wider South Head area. Multiple engravings were identified during site surveys, however these are located outside of proposed work zones.

While the east of the site, beneath the lighthouse and extending to the moat had high disturbance, potential in the west remains for further engravings and/or artefacts. Test excavation is not proposed; however monitoring may increase the known extent of AHIMS Site 45-6-0715.

9.0 SCIENTIFIC VALUES & SIGNIFICANCE ASSESSMENT

9.1 INTRODUCTION

The processes of assessing significance for items of cultural heritage value are set out in The Australian ICOMOS Charter for the Conservation of Places of Cultural Significance: the Burra Charter (amended 1999; 2013) formulated in 1979 and based largely on the Venice Charter of International Heritage established in 1966. As part of the archaeological assessment for significance, a key step in the process is to assess the potential impact of a proposed activity to reflect the cultural significance or value of an object, site, or place in the recommendations for conservation, management, or mitigation.

As defined in the 'Burra Charter' (ICOMOS 1988) cultural significance is broken into four parts: aesthetic, historic, scientific, and social value for past, present, or future generations. Cultural significance is a concept which assists in understanding the value of (pre-) historical places as a means to enrich the present and be of value to future generations (ICOMOS 1988). The Burra Charter is considered best practice standard for cultural heritage management and conservation for archaeological and cultural significance for Aboriginal people in Australia. The social, historical, and aesthetic significance has been discussed within the Aboriginal Cultural Heritage Assess Report. This report subsequently assesses the scientific significance through the analysis of the archaeological remains.

9.2 ASSESSMENT OF SCIENTIFIC SIGNIFICANCE

The scientific value of any given location will depend on the importance of the data that can be obtained from any archaeological material located on its rarity, quality, and on the degree to which this may contribute further substantial information to a scientific research process (Australia ICOMOS 1988).

Verbal communications at the site inspections indicated the site has been well recognised and studied, with LALC members able to relocate engravings based on past recordings. These engravings are becoming increasingly weathered over time. Viewing the site prompted multiple stakeholders to discuss subsistence practices and discuss regional art sites.

10.0 IMPACT ASSESSMENT

10.1 ASSESSMENT OF IMPACT TO ABORIGINAL OBJECTS AND/OR PLACES AND CULTURAL HERITAGE

Based on the assessment of Aboriginal heritage (Section 4.0) and archaeological sensitivity zones, the study area holds Aboriginal cultural heritage value. To determine whether impacts relating to these works will directly or indirectly harm any potential Aboriginal objects and/or places, the proposed activity has been assessed. Each archaeological potential zone is evaluated below.

Archaeological Sensitivity Zone	Indirect or Direct Impact	Degree of Harm
Archaeological Sensitivity Zone 1 (ASZ1) (Includes AHIMS Site 45-6-0517)	No direct or indirect impacts proposed.	This area has known value due to the presence of engravings. This area should be avoided throughout all project works to ensure no harm occurs. This is consistent with current proposed activity.
Archaeological Sensitivity Zone 2 (ASZ2)	Direct impact through removal of any contaminated soils before replacement with clean fill material.	This area has low potential and if present, movable material such as artefacts will be disturbed. Soils will be replaced with clean fill and geotextiles. This is to be completed at a small scale, with hand tools and monitored by cultural site officers resulting in nil-low harm to any engravings predicted.
Archaeological Sensitivity Zone 3 (ASZ3)	Direct impact through soil removal for remediation of contaminated materials and improved drainage.	This area has potential Aboriginal value and to decrease the change of harm, hand tools will be used where possible, and monitoring will occur during soil remediation and drainage works.

10.2 STATEMENT OF IMPACT TO ABORIGINAL CULTURAL HERITAGE

No significant excavation or site modification is planned, with the proposed works limited to improving the ground surface surrounding the lighthouse. The impacts of works consist of replacement of soils and improvement of site drainage. Removal of contaminated soils does have potential to reveal additional engravings within ASZ3 and impacts are to be reduced through monitoring and small-scale excavation, most likely with hand tools. ASZ1 is to be sectioned off during works to avoid unnecessary inadvertent damage. Following these protocols, impacts are predicted to be nil – low for Aboriginal heritage values.

Table 10.1 Proposed harm to known AHIMS sites.

AHIMS site information									Proposed Harm		
Portion of site [1]	AHIMS site ID	Site feature [2]	Site name	Information access restriction	Easting	Northing	Datum (AGD or GDA)	Zone	Type of harm [3]	Degree of harm [4]	Consequence of harm [5]
On eastern site of lighthouse moat, extending to the north past the battery command post	45-6-0517	Rock Engravings	South Head Site E; Sydney Harbour National Park; Hornby Lighthouse;	No	340932	6254986	GDA	56	Will not be harmed	None	No loss of value

11.0 MANAGEMENT, MITIGATION AND RECOMMENDATIONS

11.1 SURVEY RESULTS

Archaeological surveys conducted on the 11th and 21st of November resulted in the relocation of Registered AHIMS Site 45-6-0715 to the east of Hornby Lighthouse. Some additional engravings were located approximately 100m west, next to the South Head Heritage Trail, however the authenticity of the latter engravings was questioned.

As a result of these surveys in addition to background environmental and archaeological research, potential for culturally significant material is present, in ASZ3. Cultural value of the area was also identified.

11.2 MITIGATION MEASURES

- An Aboriginal Heritage Impact Permit (AHIP) is to be applied for, for the full extent of remediation and drainage improvement works.
- Fencing should be erected around any accessible areas of ASZ3 which contains Registered AHIMS Site 45-6-0715.
- A further zone for laying down of tools should be created, outside of the immediate works area.
- Before any ground disturbance takes place, all development staff, contractors and workers should complete a Cultural Awareness Induction and be briefed as to the site zoning.
- In accordance with *the Code of Practice* DECCW (2010b) remedial soil and drainage works shall be monitored under an Aboriginal Heritage Impact Permit (AHIP). An archaeologist must be present to monitor key stages of the works when Aboriginal objects and/or features of Aboriginal and cultural significance might be discovered. Aboriginal stakeholders (one of whom must be a land council member) must also be notified and given the opportunity to be present as cultural heritage officers to monitor the works during these key stages. If no engravings or artefacts are identified through the physical examination of bedrock and contaminated soils, then a supervising archaeologist can then confirm that works may continue without further archaeological monitoring.
- Any cultural material and/or objects that are identified on site shall be subject to an Unexpected Finds Protocol.

11.3 MANAGEMENT RECOMMENDATIONS

- Consultation with the registered Aboriginal stakeholders as per requirements detailed in the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010) should continue.
- The results of monitoring works are to be built into a final report. Any newly identified sites are to be recorded, with this built into the final report and site card.
- All cultural material and/or objects collected from the site may be subject to a Care and Control Agreement in consultation with the Aboriginal stakeholders.

- This report only considers soil remediation and drainage works as shown in Section 8 above. Any further works proposed upon South Head shall be subject to further cultural heritage assessment.

12.0 REFERENCE LIST

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13.0 APPENDICES

13.1 AHIMS SEARCH



AHIMS Web Services (AWS)
Search Result

Your Ref/PO Number : Hornby Lighthouse

Client Service ID : 926972

AMAC Group P/L

Date: 03 September 2024

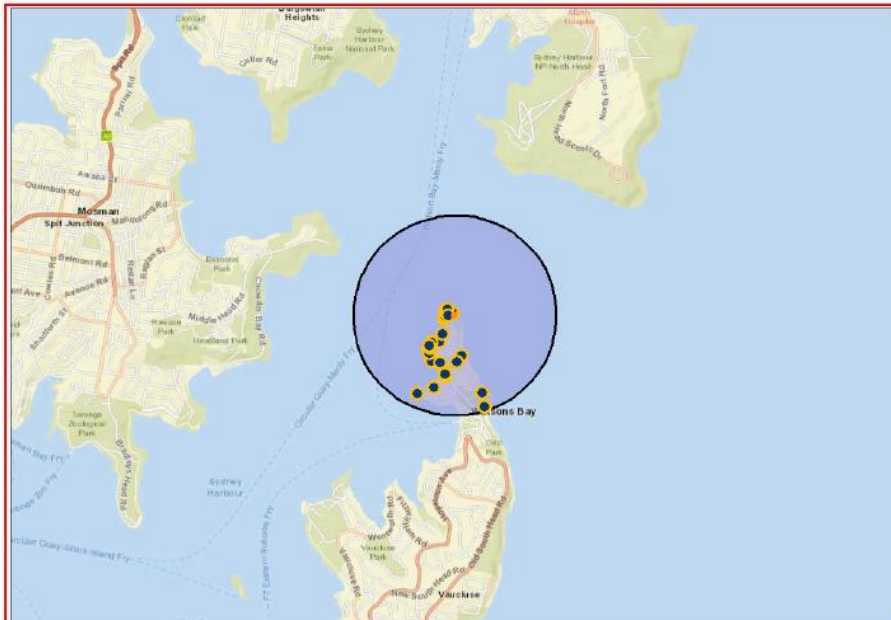
122c Percival Rd
Stanmore New South Wales 2048
Attention: Martin Carney

Email: amac@archaeological.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot: 415, DP:DP752011, Section: - with a Buffer of 1000 meters, conducted by Martin Carney on 03 September 2024.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

27	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *



AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Hornby Lighthouse
Client Service ID : 926978

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
45-6-0922	South Head Site D	AGD	56	340590	6254420	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	595,1985
	Contact	Recorders	Mr.Peter Brookhouse							
45-6-2971	South Head(duplicate copy of 45-6-1518)	GDA	56	340880	6255025	Open site	Valid	Artefact : -		
	Contact	Recorders	Mr.Peter Brookhouse							
45-6-0716	South Head Site C;Sydney Harbour National Park;	GDA	56	340850	6254930	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	595,1985
	Contact	Recorders	Mr.Peter Brookhouse							
45-6-0733	South Head Site B;Sydney Harbour National Park;	GDA	56	341029	6254555	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	595,1985
	Contact	Recorders	Mr.Peter Brookhouse							
45-6-0918	South Head Site S	GDA	56	340864	6254950	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	595,1985
	Contact	Recorders	Mr.Peter Brookhouse							
45-6-0920	South Head Site G;Sydney Harbour National Park;	GDA	56	340867	6254384	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	595,1985,105192
	Contact	Recorders	T Negerevich							
45-6-0921	South Head Site A;Sydney Harbour National Park;	GDA	56	340728	6254493	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	595,1985
	Contact	Recorders	J Wyeth							
45-6-1666	South Head;Sydney Harbour NP,;	GDA	56	340700	6254570	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	
	Contact	Recorders	Mr.Peter Brookhouse							
45-6-3943	Watson GG1	GDA	56	340805	6254693	Open site	Valid	Grinding Groove : -		
	Contact	Recorders	Mr.Paul Irish,Coast History & Heritage							
45-6-3960	Camp Cove Shelters	GDA	56	340876	6254336	Closed site	Valid	Shell : -		105192
	Contact	Recorders	Mr.Paul Irish,Coast History & Heritage							
45-6-1665	South Head;Sydney Harbour NP;	GDA	56	340858	6255011	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	
	Contact	Recorders	Mr.Peter Brookhouse							
45-6-3945	South Head Site T WAH088	GDA	56	340978	6254494	Open site	Valid	Art (Pigment or Engraved) : -		
	Contact	Recorders	Mr.Paul Irish,Coast History & Heritage							
45-6-0724	South Head Site L;Sydney Harbour National Park;	GDA	56	341240	6254180	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	595,1985
	Contact	Recorders	Unknown Author							
45-6-3351	Camp Cove 1 (CC1)	GDA	56	340588	6254161	Open site	Valid	Shell : 1		103797,105192
	Contact	Recorders	Comber Consultants Pty Limited,Mr.David Nutley							
45-6-3947	Woollahra Possible Engraving WAH148	GDA	56	340708	6254646	Open site	Valid	Art (Pigment or Engraved) : -		

Report generated by AHIMS Web Service on 03/09/2024 for Martin Carney for the following area at Lot : 415, DP:DP752011, Section : - with a Buffer of 1000 meters.. Number of Aboriginal sites and Aboriginal objects found is 27

This information is not guaranteed to be free from error omission. Heritage NSW and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.

Page 1 of 2



AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Hornby Lighthouse
 Client Service ID : 926978

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
45-6-0713	South Head Site F;Sydney Harbour National Park; <u>Contact</u>	GDA	56	340726	6254686	Open site	Valid	Art (Pigment or Engraved) : - <u>Permits</u>	Rock Engraving	595,1985
45-6-0714	South Head Site H;Sydney Harbour National Park; <u>Contact</u>	GDA	56	340830	6254772	Open site	Valid	Art (Pigment or Engraved) : - <u>Permits</u>	Rock Engraving	595,1985
45-6-1519	South Head;Sydney Harbour NP,. <u>Contact</u>	GDA	56	340858	6255021	Open site	Valid	Shell : -, Artefact : - <u>Permits</u>	Midden	
45-6-3946	Woollahra Possible Engraving WAH147 <u>Contact</u>	GDA	56	340706	6254625	Open site	Valid	Art (Pigment or Engraved) : - <u>Permits</u>		
45-6-0715	South Head Site E;Sydney Harbour National Park;Hornby Lighthouse; <u>Contact</u>	GDA	56	340932	6254986	Open site	Valid	Art (Pigment or Engraved) : - <u>Permits</u>	Rock Engraving	595,1985
45-6-1517	South Head;Sydney Harbour NP,. <u>Contact</u>	GDA	56	340700	6254650	Open site	Valid	Shell : -, Artefact : - <u>Permits</u>	Midden	
45-6-1518	South Head;Sydney Harbour NP;(duplicate copy of 45-6-1908) <u>Contact</u>	GDA	56	340880	6255025	Closed site	Valid	Shell : -, Artefact : - <u>Permits</u>	Shelter with Midden	
45-6-0723	South Head Site M;Sydney Harbour National Park; <u>Contact</u>	GDA	56	341265	6254038	Open site	Valid	Art (Pigment or Engraved) : - <u>Permits</u>	Rock Engraving	595,1985
45-6-0919	South Head Site K;Sydney Harbour National Park; <u>Contact</u>	GDA	56	340888	6254960	Open site	Valid	Art (Pigment or Engraved) : - <u>Permits</u>	Rock Engraving	595,1985
45-6-0096	Campcove shelter Watsons Bay <u>Contact</u>	GDA	56	340868	6254364	Closed site	Valid	Shell : -, Artefact : - <u>Permits</u>	Shelter with Deposit	103797,10519 2
45-6-2353	Camp Cove 2 <u>Contact</u>	GDA	56	340754	6254226	Open site	Valid	Burial : - <u>Permits</u>	Burial/s	105192
45-6-3965	Woollahra Possible Shelter WAH125 <u>Contact</u>	GDA	56	340817	6254482	Closed site	Valid	Potential Archaeological Deposit (PAD) : - <u>Permits</u>		
	<u>Recorders</u>	Mr.Paul Irish,Coast History & Heritage								


**** Site Status**
Valid - The site has been recorded and accepted onto the system as valid
Destroyed - The site has been completely impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There is nothing left of the site on the ground but proponents should proceed with caution.
Partially Destroyed - The site has been only partially impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There might be parts or sections of the original site still present on the ground
Not a site - The site has been originally entered and accepted onto AHIMS as a valid site but after further investigations it was decided it is NOT an aboriginal site. Impact of this type of site does not require permit but Heritage NSW should be notified

Report generated by AHIMS Web Service on 03/09/2024 for Martin Carney for the following area at Lot : 415, DP:DP752011. Section : - with a Buffer of 1000 meters.. Number of Aboriginal sites and Aboriginal objects found is 27

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13.2 AHIMS SITE CARDS


AHIMS Site 45-6-0715

(N) (II) 9130 S1/56-5 SYDNEY	45-6-715
SOUTH HEAD (SOUTH HEADLAND OF SYDNEY HARBOUR)	Locality ROCK ENGRAVINGS
Military map/other reference Sydney 1:250.000.SI/56-5 Sydney 1:63.360. Trig # 4285.82-83 S123 # 2850495	Site 5.
Pastoral or other property, park (c. 285199) Gregory's Map 76 A.12.	
Description of site Inside the Hornby Lighthouse enclosure.	
	<u>Length of site</u>
<u>Direction site faces</u>	<u>Width</u> <u>Height</u>
<u>Dimensions of decorated areas</u>	
<u>Estimated number of figures</u>	45-6-0715
<u>Nearest water supply</u>	
<u>Techniques</u>	abraded grooves conjoined puncture pecked
<u>Styles</u>	abraded grooves outline outline with design linear pecked linear pecked intaglio combined pecked and linear
<u>Subjects</u>	A whale, many fish, a wallaby and a kangaroo. These are part of a larger group which has been disfigured. Outside the enclosure there is a swordfish, partially destroyed by a path which runs across its snout, 2 skate and a fish.
<u>Superimpositions</u>	

<u>Associated with</u>	rock paintings axe grooves campsite	carved trees quarry other relics	stone arrangements, burials
------------------------	---	--	--------------------------------

Natural defacementAnimal defacementHuman defacementPhoto record byWhere depositedScale chart by Polythene Tracings available. Where deposited N.P.W.S.History From Aust.Mus.Index.Aboriginal meaning and namePublished reference CAMPBELL, W.D.: Aboriginal Carvings of Port Jackson + Broken Bay. Memoirs of the Geol. Survey, N.S.W. Ethnol. Series I, 1899.Remarks p.7. plate I Fig. 1, 2, 3. Parish of Alexandria No. I.Campbell: Original Drawings + Maps. Position marked on map.
Mitchell Library. Cat. No. D223/224.

ADDITIONAL INFORMATION



National Parks and Wildlife Service REGISTER COPY
 BOX N189, GROSVENOR STREET POST OFFICE, SYDNEY, NSW 2000. TEL (02) 237 6500
Standard Site Recording Form - FURTHER INFORMATION (4th RECORD)

MAP NAME	EDITION	SCALE	REFERENCE	HEAD OFFICE USE ONLY:
Sydney Heads	9130-II-N	1:25,000	3 62	NWPS site no: 45-67
Mosman	U1852	1:10,000	408 548	Site types: engraving
<u>Sydney</u>	<u>imp</u>	<u>250K</u>	<u>4285.8199</u>	Filed by: <u>SW</u>

Site name: _____ Locality/property name: _____ Owner/Manager: _____
 Local post office: see previous reports Address: _____
 NPWS District: _____ Region: _____

Reason for investigation (give R.O. instruction no. where applicable):
Report finding after exposing rock shelf for protection works

Portion no: Parish:	Other land category: County:	Plan/sketch/section of site attached? Yes/No. How many?
Air photo refs. (for stereo pair)		Photos taken? Yes/No How many attached?

How to get to the site (refer to permanent features, give best approach to site eg. from above, below, along cliff.
 (Draw diagram on separate sheet.)
see previous reports

Other sites in locality? Yes/No. Site Types include:
 Are sites in NPWS Register? Yes/No. Unregistered sites — plans for future recording? Yes/No.

Have artefacts been removed from site? Yes/No/don't know. When?
 By whom? Deposited where?

Is site important to local Aborigines? Yes/No/don't know.
 Give contact(s) name(s) + address(es)

Contacted for this recording? Yes/No.
 (Attach additional information separately) If not, why not?

Verbal/written reference sources (including full title of accompanying report).
see previous reports

Checklist: surface visibility, damage/disturbance/ threat to site	Condition of site: <u>see over for additional information</u>
--	--

Recommendations for management & protection (attach separate sheet if necessary):

Site recorded by: P. Brookhouse, Ranger, N.P.W.S. Date: 31/5/1986
 Address/institution:

CULTURAL RESOURCES SECTION

Sites Register

SITE POSITION & ENVIRONMENT		OFFICE USE ONLY: NPWS site no: 45-6-715
1. Land form a. beach/hill slope/ridge top, etc:		b. site aspect: c. slope:
d. mark on diagram provided or on your own sketch the position of the site:		e. Describe briefly:
f. Local rock type:		g. Land use/effect:
2. Distance from drinking water:		Source:
3. Resource Zone associated with site (estuarine, riverine, forest etc):		
4. Vegetation:		
5. Edible plants noted:		
6. Faunal resources (include shellfish):		
7. Other exploitable resources (river pebbles, ochre, etc):		
Site type:	DESCRIPTION OF SITE & CONTENTS.	
engraving	<p>Note state of preservation of site & contents. Do NOT dig, disturb, damage site or contents.</p> <p>additional information to previous reports</p> <p>The western margin of the rock shelf on which the site is located was cleared of vegetation and soil to assess the existence of further figures.</p> <p>The tail to the fish figure located on the margin was exposed. Date of work was 7/5/1986. Work was carried out as preliminary to protection works.</p> <p>The tail was characterised by peck marks joined by abasion, and moderately weathered. The previously exposed sections were severely weathered with no peck marks apparent.</p>	
<p>CHECKLIST TO HELP: length, width, depth, height of site, shelter, deposit, structure, element eg. tree scar, grooves in rock.</p> <p>DEPOSIT: colour, texture, estimated depth, stratigraphy, contents-shell, bone, stone, charcoal, density & distribution of these, stone types, artefact types.</p> <p>ART: area of surface decorated, motifs, colours, wet, dry pigment, technique of engraving, no. of figures, sizes, palmation</p> <p>BURIALS: number & condition of bone, position, age, sex, associated artefacts.</p> <p>TREES: number, alive, dead, likely age, scar shape, position, size, patterns, axe marks, regrowth.</p> <p>QUARRIES: rock type, debris, recognisable artefacts, percentage quarried.</p> <p>OTHER SITES EG. structures (fish traps, stone arrangements, bora rings, mia mia), mythological sites, rock holes, engraved groove channels, contact sites (missions massacres cemeteries) as appropriate</p>	<p>Attach sketches etc, eg. plan & section of shelter, show relation between site contents, indicate north, show scale.</p> <p>Attach annotated photos (stereo where useful) showing scale, particularly for art sites.</p>	



45-6-715

31/5/1986

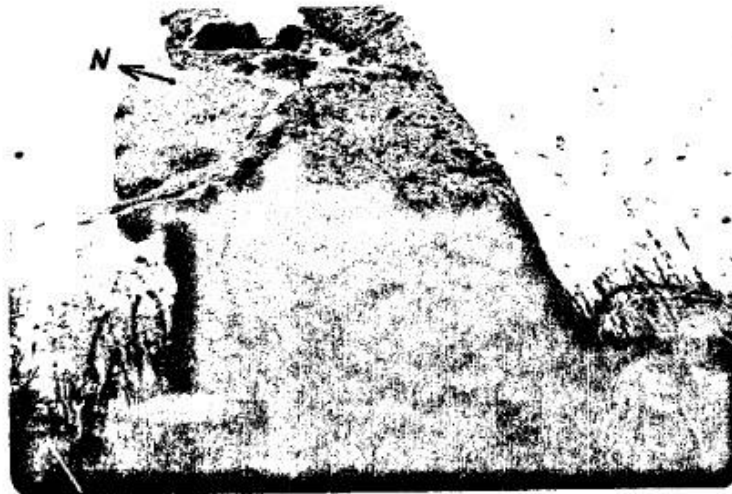


Figure before excavation

Dist neg. no. /115 Photo A. Norris

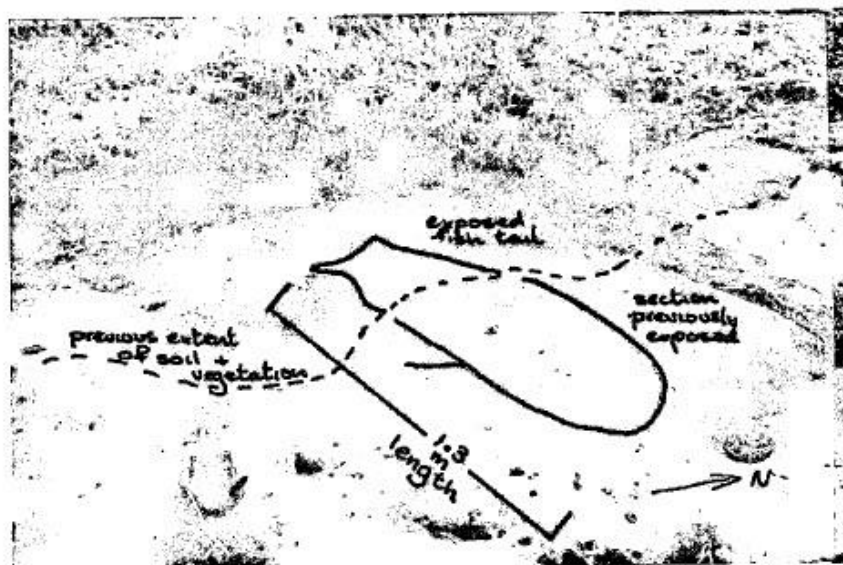



Figure after excavation. Tail of the fish figure is exposed.

Dist. neg no. 15/118 Photo P. Brookhouse

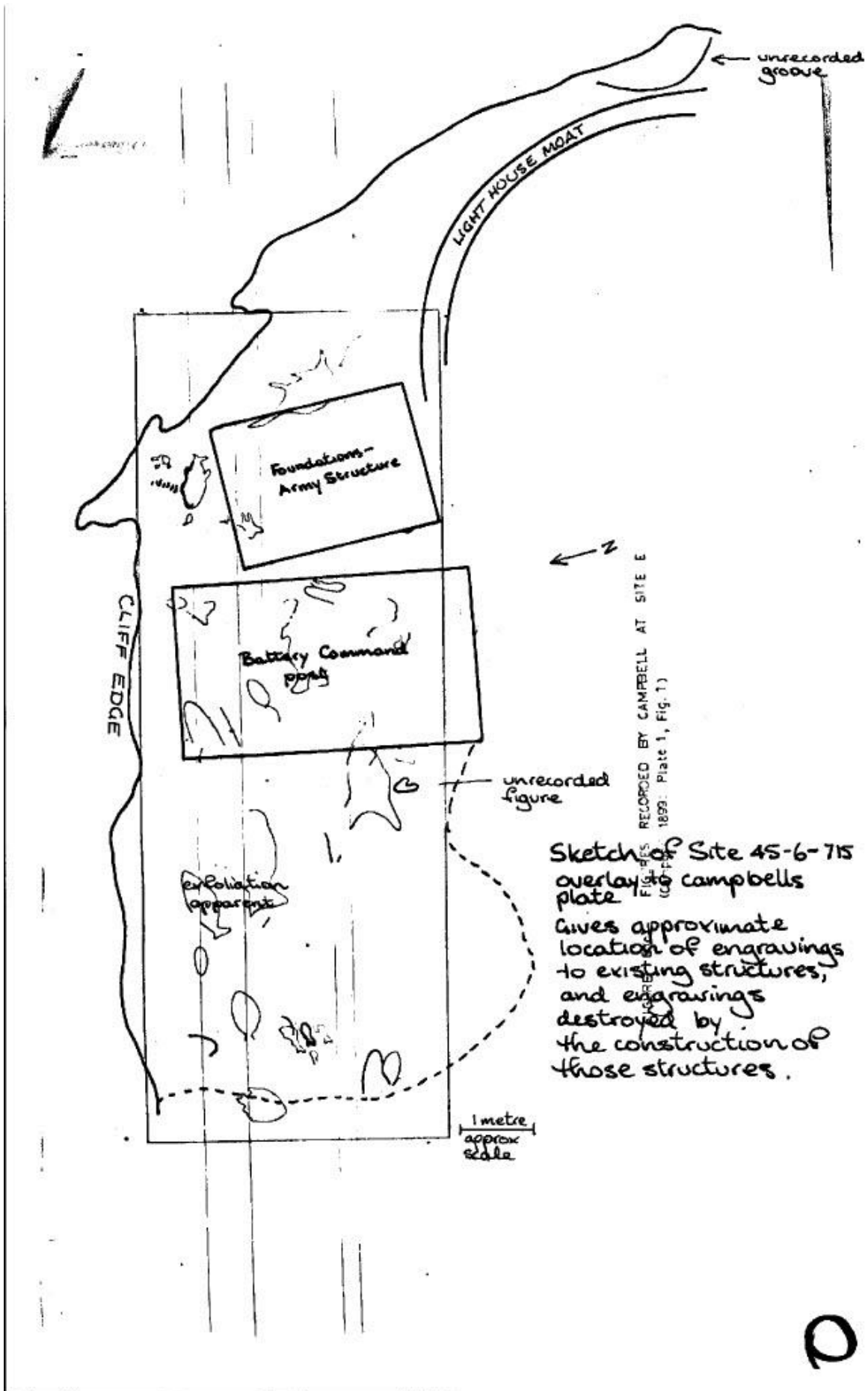
9

Add info

 National Parks and Wildlife Service <small>BOX N189, GROSVENOR STREET POST OFFICE, SYDNEY, NSW 2000. TEL (02) 237 8500</small>		Standard Site Recording Form			REGISTER COPY
MAP NAME Sydney SI-56-5 Sydney Heads 9130-II-N Mosman U1852 Sydney	EDITION Imp.	SCALE 1:250,000 1:25,000 1:10,000 1:250,000	REFERENCE 340 62 ⁵⁴ 3/408 548 4285 8199	HEAD OFFICE USE ONLY: NWPS site no: 45-6-715 Site types: File nos: engraving Date 4/6/86 Filed by: <i>[Signature]</i>	
Site name: Site E Hornby Lighthouse Local post office:		Locality/property name: South Head Sydney Harbour N.P.		Owner/Manager: N.P.W.S. and M.S.B. Address:	
NPWS District: Sydney		Region: Central			
Reason for investigation (give R.O. instruction no. where applicable):					
Resurvey and relocation of Ab. sites, Sydney District.					
Portion no: Parish:		Other land category: County:		Plan/sketch/section of site attached? Yes/No. How many?	
Air photo refs. (for stereo pair)				Photos taken? Yes/No How many attached?	
How to get to the site (refer to permanent features, give best approach to site eg. from above, below, along cliff. (Draw diagram on separate sheet.))					
The site is located at the Lighthouse area					
Other sites in locality? Yes/ NO		Site Types include:			
Are sites in NPWS Register? Yes/ NO		Unregistered sites — plans for future recording? Yes/ NO			
Have artefacts been removed from site? Yes/No/don't know. When?					
By whom?			Deposited where?		
Is site important to local Aborigines? Yes/No/don't know.					
Give contact(s) name(s) + address(es)					
Contacted for this recording? Yes/No.					
(Attach additional information separately) if not, why not?					
Verbal/written reference sources (including full title of accompanying report).					
Campbell, 1899. Aboriginal engravings of Port Jackson and Broken Bay.					
Negerevich, 1978. Aboriginal Engravings, South Head, Sydney Harbour.					
Checklist: surface visibility, damage/disturbance/ threat to site		Condition of site: Only six figures, or remnants remain, as reported by Negerevich. No discernible weathering of site since 1978, however exfoliation on rock surface is occurring. One unrecorded figure and a unrecorded groove observed.			
Recommendations for management & protection (attach separate sheet if necessary):					
The site has heavy visitation, with a heavy foot traffic. Barriers should be erected to prevent visitor movement over the the remaining engravings and grooves.					
Site recorded by: Peter Brookhouse, Ranger, Address/institution: Sydney District. N.P.W.S.				Date: 19/9/1985	

SITE POSITION & ENVIRONMENT		OFFICE USE ONLY: NPWS site no: 45-6-715
1. Land form a. beach/hill slope/ridge top, etc: coastal cliff		b. site aspect: NE
c. slope:		d. mark on diagram provided or on your own sketch the position of the site:
e. Describe briefly:		f. Local rock type:
g. Land use/effect:		2. Distance from drinking water: 30m
3. Resource Zone associated with site (estuarine, riverine, forest etc):		Source: seepage
4. Vegetation:		3. Resource Zone associated with site (estuarine, riverine, forest etc): marine
5. Edible plants noted:		4. Vegetation:
6. Faunal resources (include shellfish):		5. Edible plants noted:
7. Other exploitable resources (river pebbles, ochre, etc):		6. Faunal resources (include shellfish):
Site type: engraving	<p>DESCRIPTION OF SITE & CONTENTS. Note state of preservation of site & contents. Do NOT dig, disturb, damage site or contents. See previous accounts by Campbell and Negerevich</p> <p>Two items were observed which were unrecorded by both previous accounts. One figure is located near the western wall of the Battery Command Post. One groove is located between the lighthouse moat and the cliff edge on the eastern side of the lighthouse. The groove was probably part of a larger figure destroyed by the coastline recession. The grooves of both items are broad and shallow. Both are readily discernible by the light growth of a black lichen. Illustrations of these items are attached with their dimensions. Their location is included in the sketch of the site.</p>	
<p>CHECKLIST TO HELP: length, width, depth, height of site, shelter, deposit, structure, element eg. tree scar, grooves in rock. DEPOSIT: colour, texture, estimated depth, stratigraphy, contents-shell, bone, stone, charcoal, density & distribution of these, stone types, artefact types. ART: area of surface decorated, motifs, colours, wet, dry pigment, technique of engraving, no. of figures, sizes, patination. BURIALS: number & condition of bone, position, age, sex, associated artefacts. TREES: number, alive, dead, likely age, scar shape, position, size, patterns, axe marks, regrowth. QUARRIES: rock type, debris, recognisable artefacts, percentage quarried. OTHER SITES EG. structures (fish traps, stone arrangements, bone (pigs, ma mas), mythological sites, rock holes, engraved groove channels, contact sites (missions massacres cemeteries) as appropriate</p>	<p>Attach sketches etc, eg. plan & section of shelter, show relation between site contents, indicate north, show scale. Attach annotated photos (stereo where useful) showing scale, particularly for art sites.</p>	

0



Sydney

1. Map Name SYDNEY SYDNEY SYDNEY HEADS 5. Site No. 45-6-715

2. Scale 1:250,000 1:63,360 1:25,000 6. Site type

3. Grid ref 4285 6199 2850 1995 4084 5482 ROCK ENGRAVING

4. Site name(s) SOUTH HEAD 7. Classification

8. Air photo ref

9. Cadastral

10. Land Status Proposed Sydney Harbour National Park 11. Presently Commonwealth, Military Land

12. Directions for site relocation

On the bare rocks at the top of the cliff, at the end of South Head, on the eastern side near Hornby Lighthouse and just beyond (N.E. of) ocean side house. Group i is on the rock surface which extends to the west of the concrete shelter, and Group ii is located immediately east of the shelter.

See Location Map attached.

13. Owner 14. Tenant/Manager

Address Address

Attitude Attitude

15. Site Description

Subjects: Group i Part Stingray(?), length c.90 cm
 Small fish group, length c.62 cm
 Single fish, length c.125 cm
 Part of fish(?), length c.58 cm

Group ii Parallel cuts, length c.13 cm
 Part fish, length c.82 cm
 Other fragments of figures, probably once fish.

Campbell recorded a whole complex of figures at this location. He commented then that obviously only a remnant of original group remained due to exposed position and lighthouse construction activities. In turn, as a result of further construction activities and no doubt further erosion, it was possible to locate only a few of the figures recorded by Campbell. The rock surfaces are very weathered and pitted, with many gouges and carved initials. Many grooves of the remnant figures in Group ii are relatively deep, and must have been very deep originally. Patches of concrete also obliterate portions of the remaining grooves. The grooves of the Group i remnant figures are more weathered and some are very shallow. The irregularity and pitted nature of the rock surface contributed to difficulty of identifying grooves, and although several additional possibilities were seen - they were not recorded as interpretation was too doubtful.

16. Reasons for investigation Report to Dept. of Construction (for Dept. of Defence)

17. Condition Badly weathered, only remnants of original figs. remain

18. Interpretation SEE REPORT - SITE E

19. Visitation

20. Recommendations

X

21. Environmental description of site locality

22. Relation to other sites in locality

1 of 12 engraving sites (some totally destroyed now) on South Head.

23. Details of artifact collections

24. Is plan or diagram of site attached? Yes/No

25. Are annotated photographs attached? Yes/No How many?

26. Other additions *Polythene Tracings available. N.P.W.S.*

27. Importance of site to Aborigines

28. Source of this information

29. Oral sources of information

W.D.Campbell 1899 Aboriginal Carvings of Port Jackson & Broken Bay, Plate , Fig.

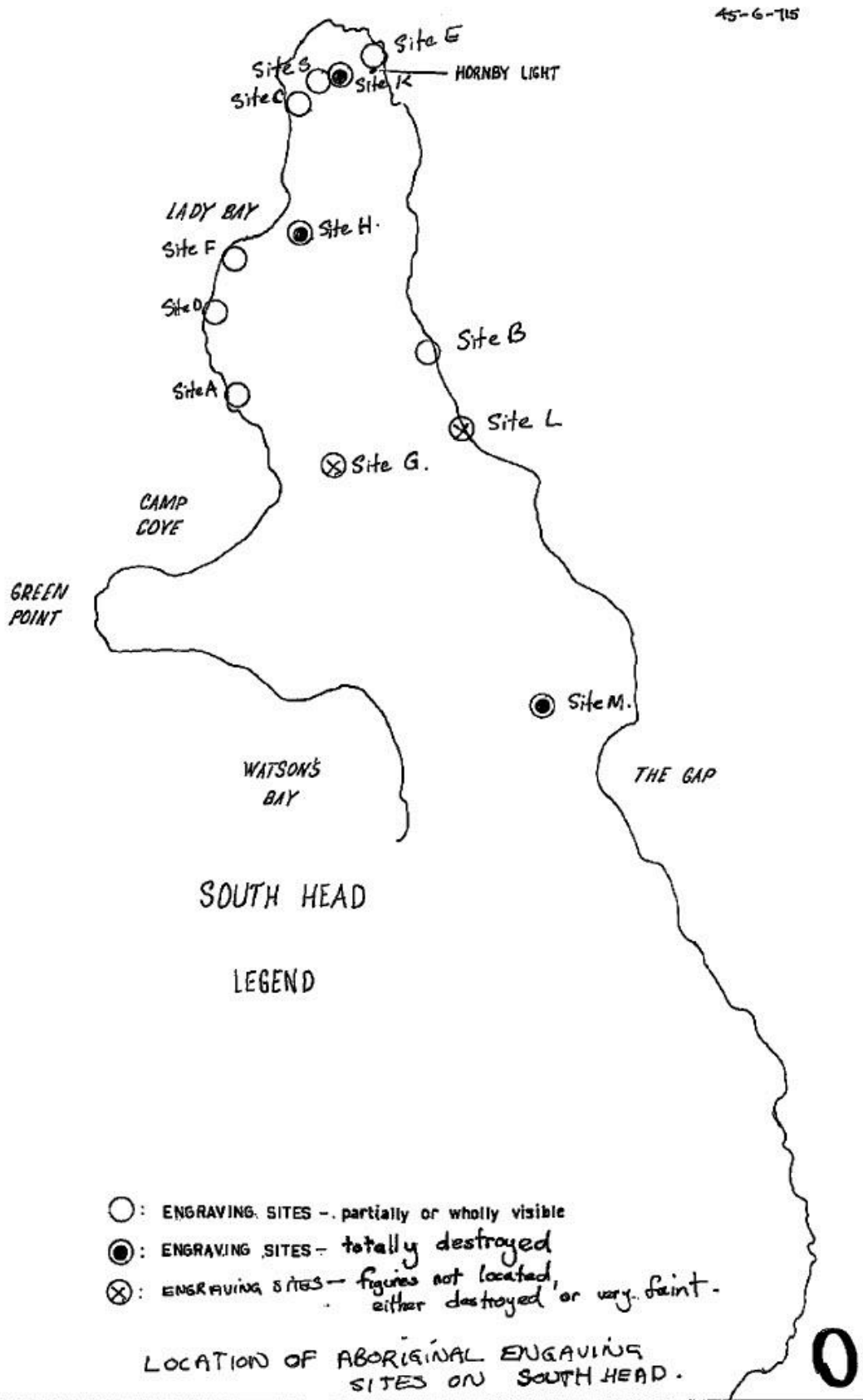
30. Written references T.Negerevich 1978 Aboriginal Rock Engravings - South Head, Sydney Harbour. Report to Dept. of Housing & Construction. Site E

31. Recorded by T.Negerevich Filed by

Address C/- "Welbon"
Garah 2405

Date Nov/Dec 1978

Date

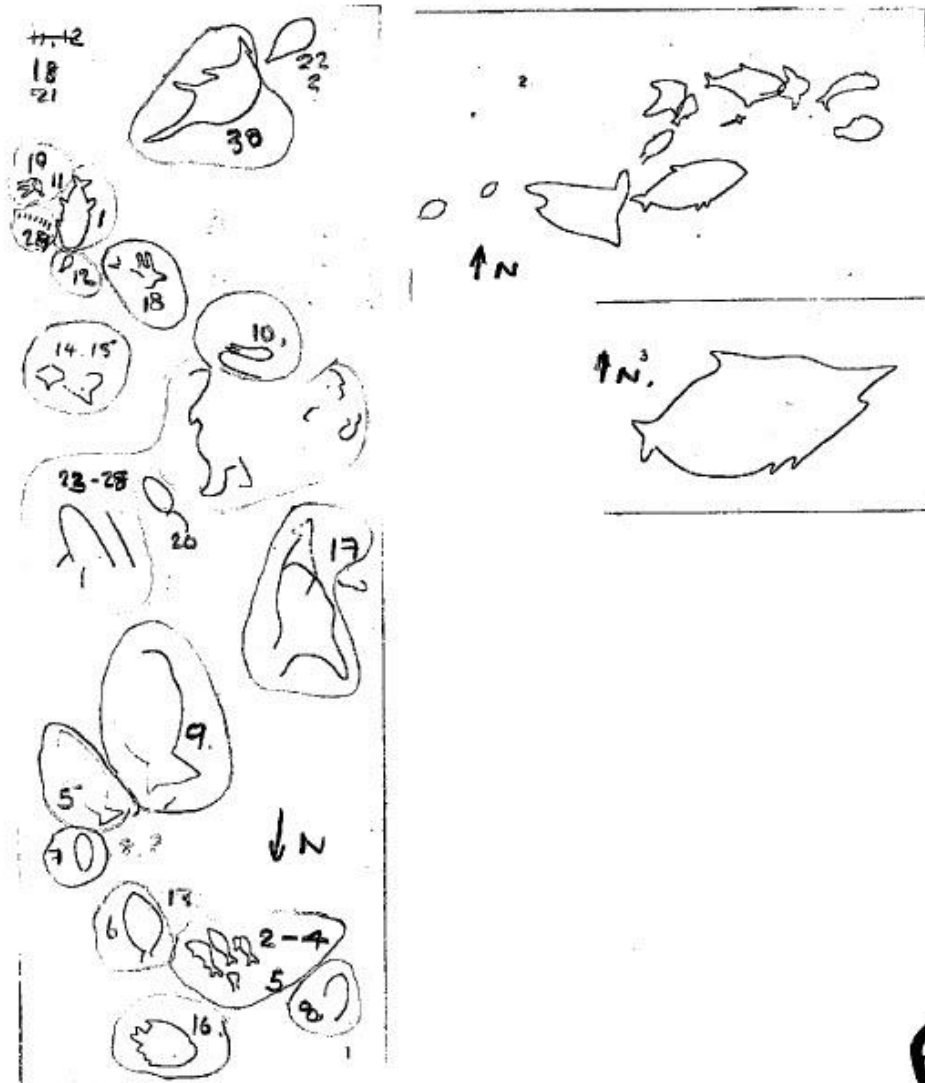


South Head Campbell p. 7 pl. 1. fig 1, 2, 3. Syd 1:63, c. 2850/995
45-6-715

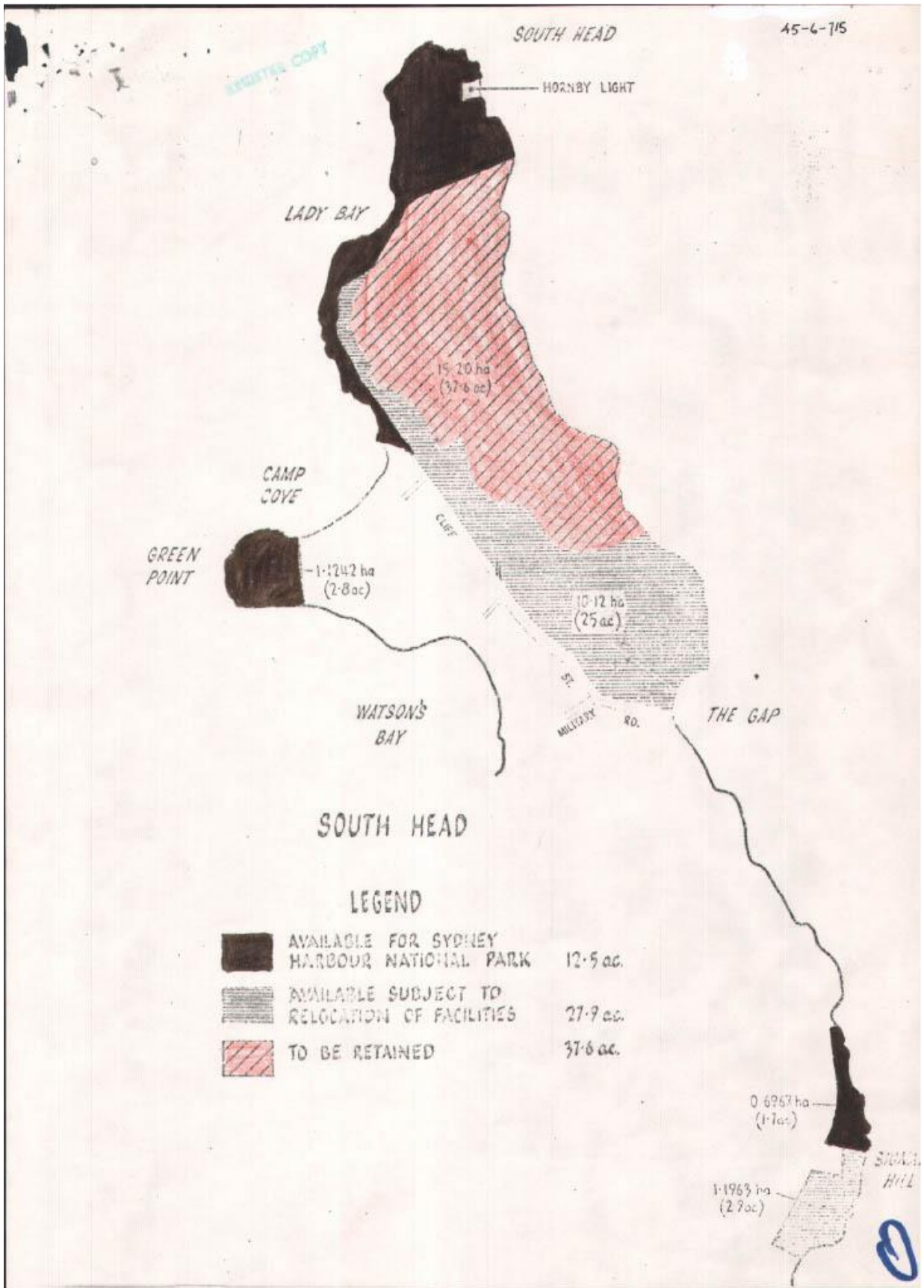
Plate I, Figs. 2 and 3. *Locality.*—This is within the Hornby Light-house enclosure, at the eastern point of the South Head of Port Jackson.

Description.—The carvings are cut on the flat bare rock at the top of the cliff, about seventy feet above the sea; they are evidently only a remnant of the original group, owing to the exposed position of the site; the building operations also of the Light-house have probably covered and destroyed many figures. At the northern end of the group the figures are all fish; the end one is a flounder; none of the larger fish are perfect now, unfortunately. Towards the middle of the group there is a small whale with a series of parallel straight cuts above it and near by two small fish, and one of these appears to be combined with another small figure; there is also a fragment of a wallaby. On the south-east side of the Light-house there is a deeply-cut kangaroo, and a fish. The whole of the carvings have evidently been boldly cut originally. The subject of Plate I, Fig. 3, is also within the enclosure, seventy-two feet from the Light-house; it may represent a sword-fish. Since the measurements were taken a pathway has been cut across the sword or snout of this fish. The carving figured in Plate I, Fig. 2, is outside the enclosure, towards the harbour side of the headland, and cut upon several small patches of rock, level with the surface of the ground. Among the figures can be recognised two skates—a small shark; the other fish are doubtful to the Writer.

REGISTER COPY



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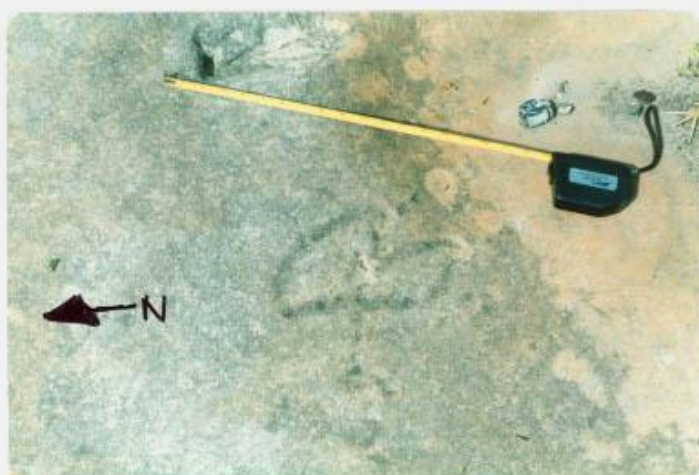
Site 45-6-715



Sunfish figure near Hornby Lighthouse. Photo by A. Morris
District neg. no. ?

Looking east towards the battery command post
District neg. no. 1/117 Photo by P. Brookhouse





Previously unrecorded figure, located west of battery command post
District neg. no. 2/117 Photo by P. Brookhouse



Unrecorded groove located next to lighthouse moat. District neg. no. 3/117 Photo by P. Brookhouse

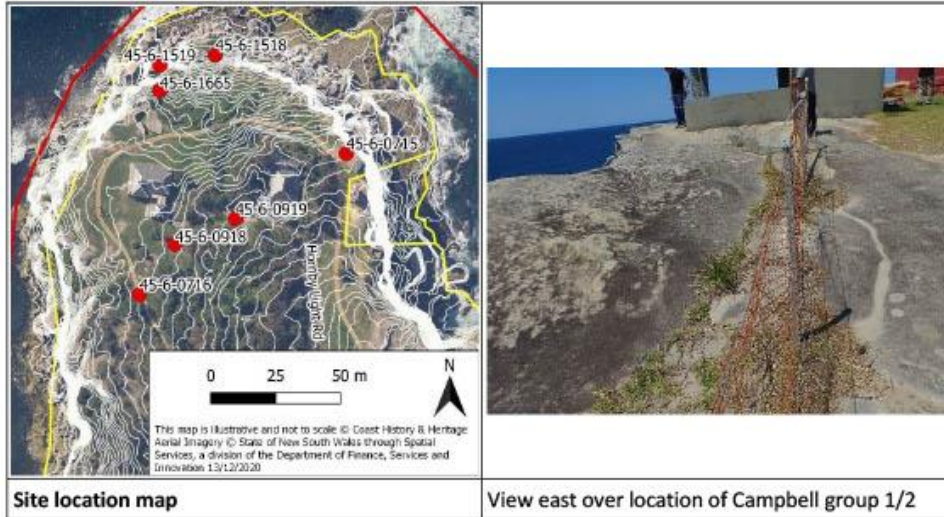


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Aboriginal site record update – AHIMS #45-6-0715

This Aboriginal site record update has been supplied to AHIMS by Coast History & Heritage in July 2021. The updates listed below have been made as part of the Woollahra Aboriginal Heritage Study undertaken by Coast History & Heritage for Woollahra Municipal Council in 2020-2021. The study involved a detailed review of AHIMS records and field survey in 2020 to locate and check the condition of registered sites. This has allowed the following revisions to be made to existing AHIMS attributes:

Field	Existing Value	Revised Value	Reason
Site Name	South Head Site E; Sydney Harbour National Park; Hornby Lighthouse		
Site Feature/s	Art (Pigment or Engraved)		
MGA Easting (Zone 56)	340904	340932	Updated based on field inspection 21/10/2020
MGA Northing (Zone 56)	6254990	6254986	
Site Condition	Rock engraving near Hornby Lighthouse. Motifs of a whale, many fish, a wallaby and a kangaroo. Recorded by Campbell in 1890s as groups 1/1 and 1/2. Located in 1978 by Negerevich and 1985 by NPWS and still visible in 2020 when visited by WAHS survey but fading. On the bare rocks at the top of cliff at the end of South Head on the eastern side near Hornby Lighthouse and just beyond (N.E of) ocean side house. Group 1 is on the rock surface which extends to the west of the concrete shelter and Group 2 is located immediately east of the shelter.		
Other notes	Campbell noted in 1890s that only remnant of original group remained due to exposed position and lighthouse construction activities. In 2020 engravings visible but fading and not all motifs were checked.		



1890s sketch of site 1/1 by Campbell (SLNSW ML D223)

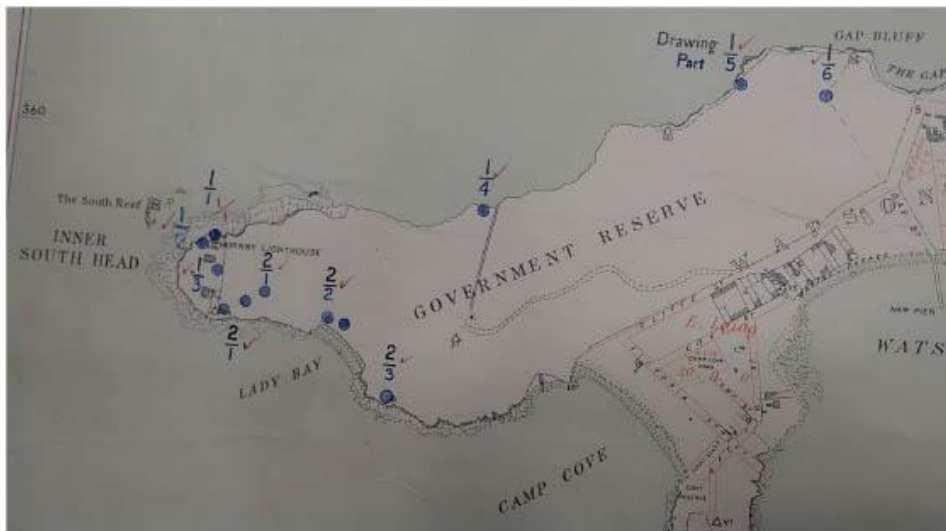




1890s sketch of site 1/2 by Campbell (SLNSW ML D223)



Excerpt of SLNSW manuscript ML D224 map produced by Campbell in 1890s showing location of sites



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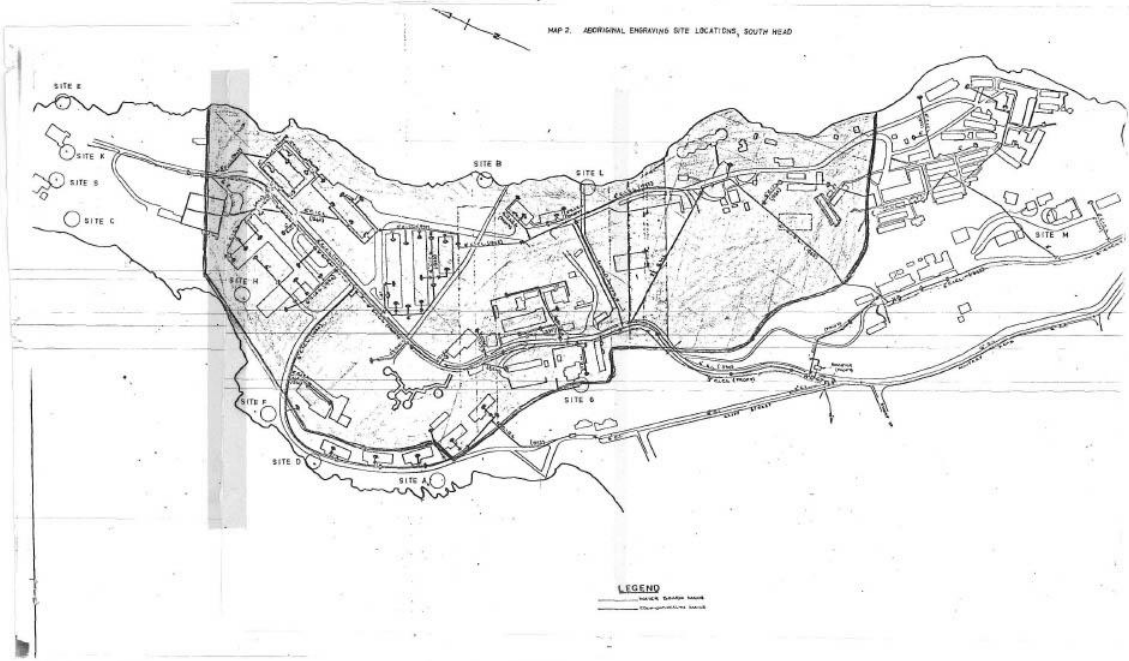
ABORIGINAL ROCK ENGRAVINGS - SOUTH HEAD, SYDNEY HARBOUR

A Report to the
Australian Department of Housing & Construction

by
Tia Negerevich

December 1978





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SITE E

(N.P&W.S. Site No: 45-6-715)

Map References: Sydney Heads 1:25,000 4084 5482
Sydney 1:63,360 2850 1995

Locality: On the bare rocks at the top of the cliff, at the end of South Head, on the eastern side near Hornby Lighthouse and just beyond (N.E.of) ocean side house. Group i is on the rock surface which extends to the west of the concrete shelter, and Group ii is located immediately east of the shelter. (See photos 25,26, 29 & 30)

Subjects: Group i Part Stingray(?), length c.90 cm
Small fish group, length (whole one) c.62 cm
Single fish, length c.125 cm
Part of fish(?), length c.58 cm
(See Fig.6(a))
Group ii Parallel cuts, length c.13 cm
Part fish, length c.82 cm
Other fragments of figures, probably once fish
(See Fig.6(b))

Description: Campbell recorded a whole complex of figures at this location (see Fig.6(c)). He commented then that obviously only a remnant of original group remained due to exposed position and lighthouse construction activities. In turn, as a result of further construction activities and no doubt further erosion, it was possible to locate only a few of the figures recorded by Campbell. The rock surfaces are very weathered and pitted, with many gouges and carved initials. Many grooves of the remnant figures in Group ii are relatively deep, and must have been very deep originally. Patches of concrete also obliterate portions of the remaining

-45-

grooves. The grooves of the Group 1 remnant figures are more weathered and some are very shallow. The irregularity and pitted nature of the rock surface contributes to difficulty of identifying grooves, and although several additional possibilities were seen - they were not recorded as interpretation was too doubtful. The gale which blows almost constantly does not facilitate the use of polythene, and the isolated position prevented night visits to view with lights.

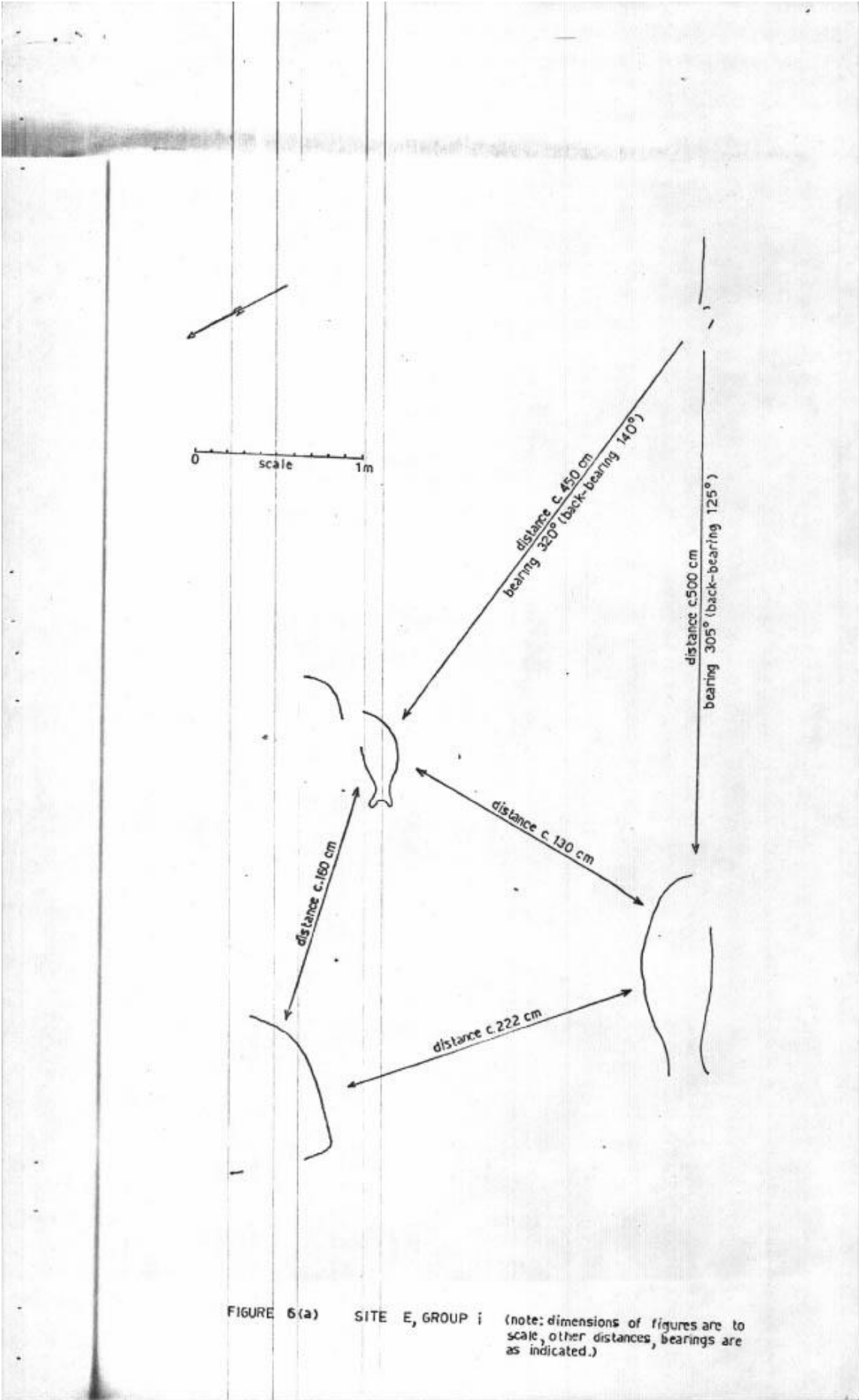


FIGURE 6(a) SITE E, GROUP i (note: dimensions of figures are to scale, other distances, bearings are as indicated.)

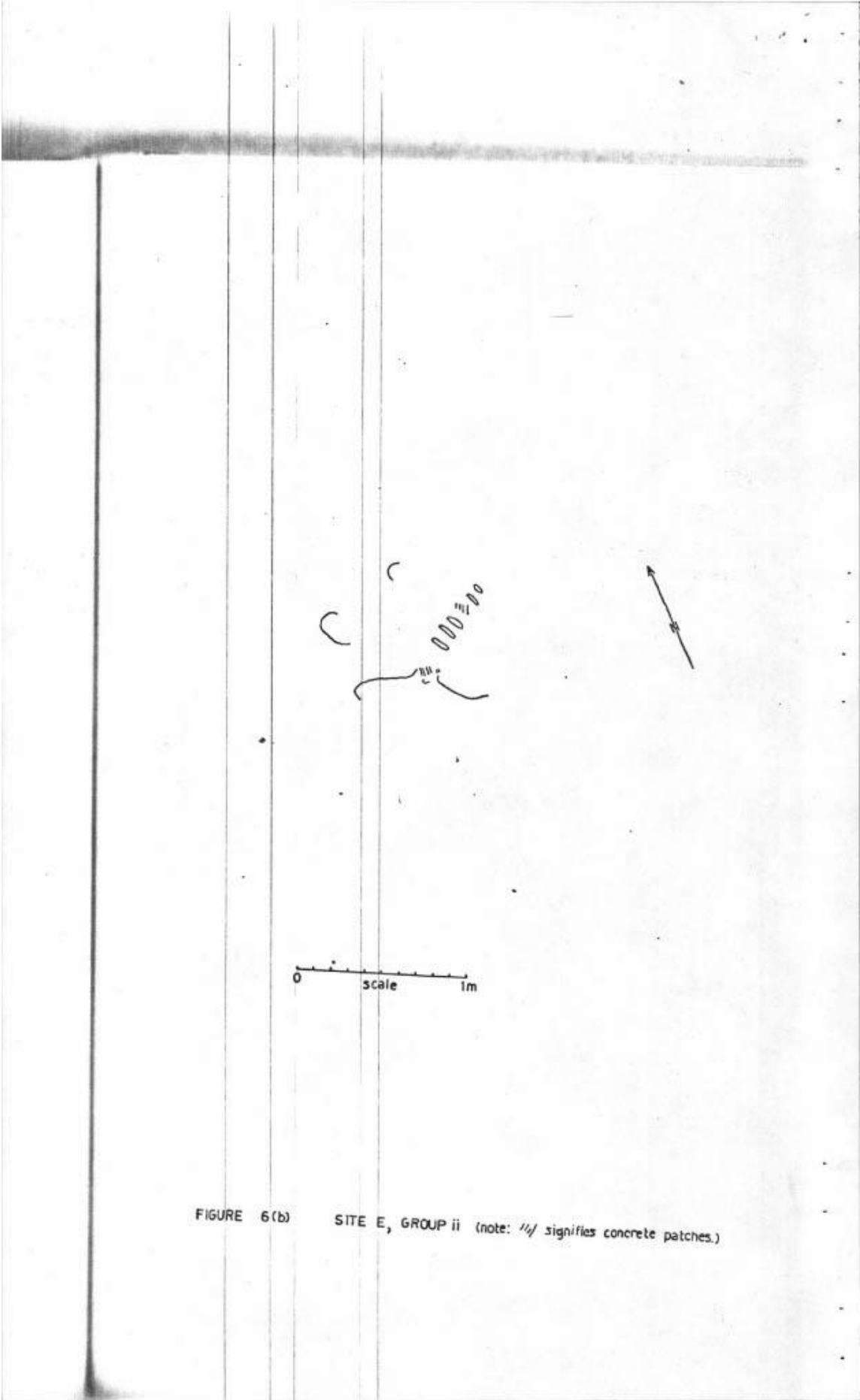


FIGURE 6(b) SITE E, GROUP ii (note: // signifies concrete patches.)

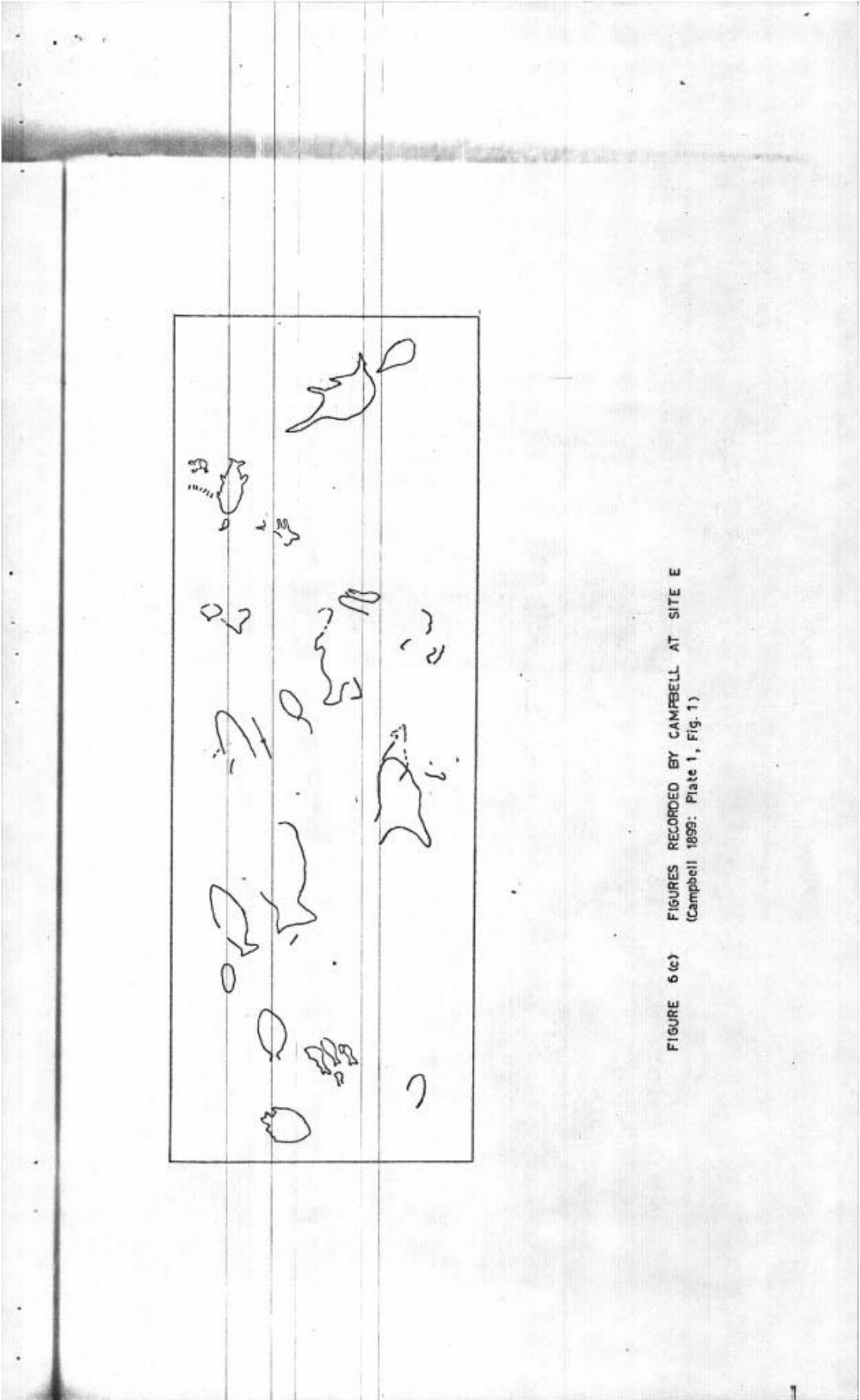


FIGURE 6(c) FIGURES RECORDED BY CAMPBELL AT SITE E
(Campbell 1899: Plate 1, Fig. 1)

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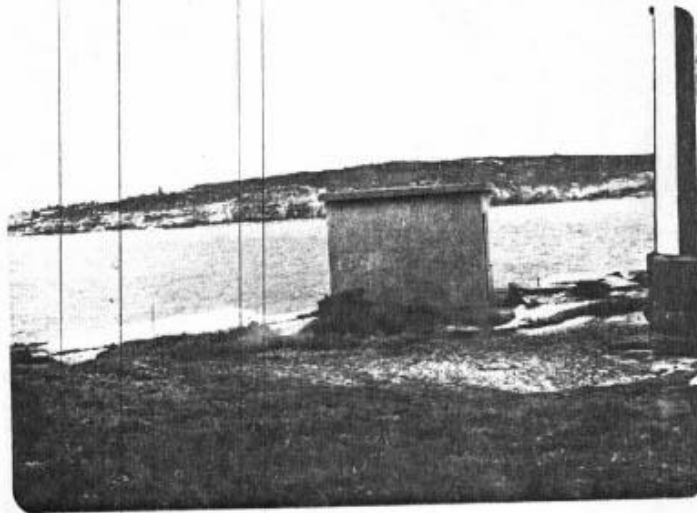


Photo 25: Location of Site E, Group i is to the left of the concrete structure, and Group ii to the right. The edge of Hornby Lighthouse can be seen on the right-hand side.

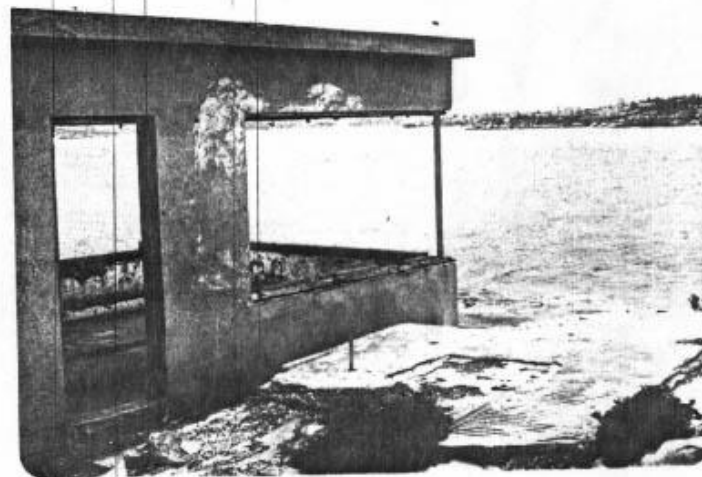


Photo 26: Close up view of Group ii location, Site E. The remains of the engraved figures are visible just beyond the concrete slab in the foreground.

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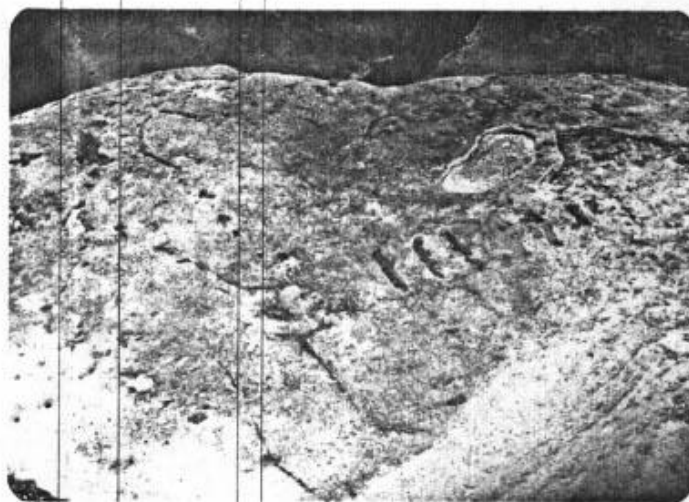


Photo 27: View of the remnants of Group ii, Site E engravings, showing the eroded and gouged nature of the rock surface.

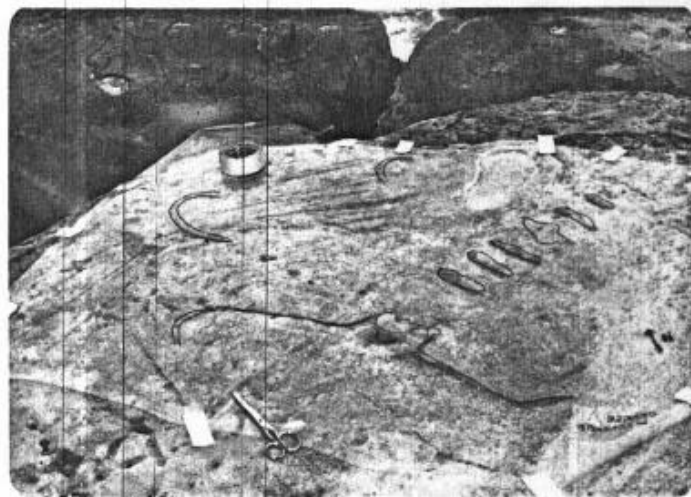


Photo 28: Polythene tracing of Group ii, Site E, indicates the position of the engravings. The sections in brown represent the presence of concrete.

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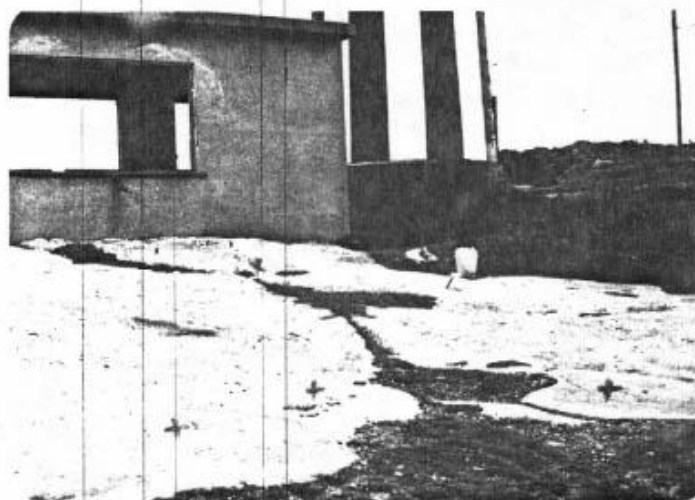


Photo 29: View of the rock surface on which Group 1, Site E engravings are located, looking towards Hornby Lighthouse.



Photo 30: View of portion of Group 1, Site E engravings, looking out to sea, and showing position of cliff edge.

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Photo 31: Single fish extending across corner of rock surface, Group 1, Site E.

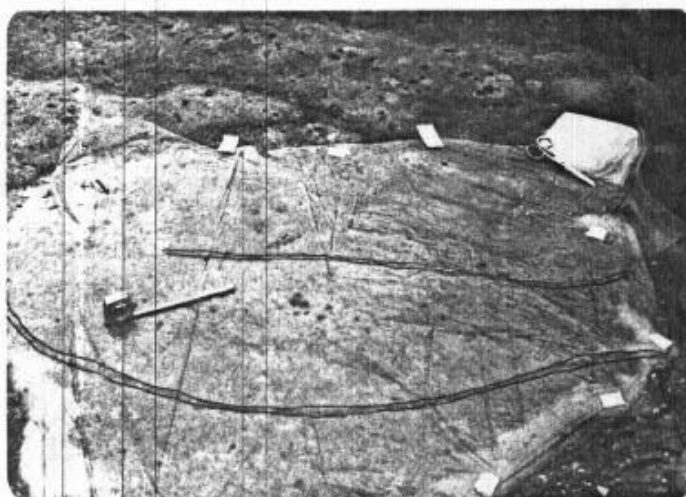


Photo 32: Polythene tracing of the single fish, Group 1, Site E. The tape is extended 20 cm.

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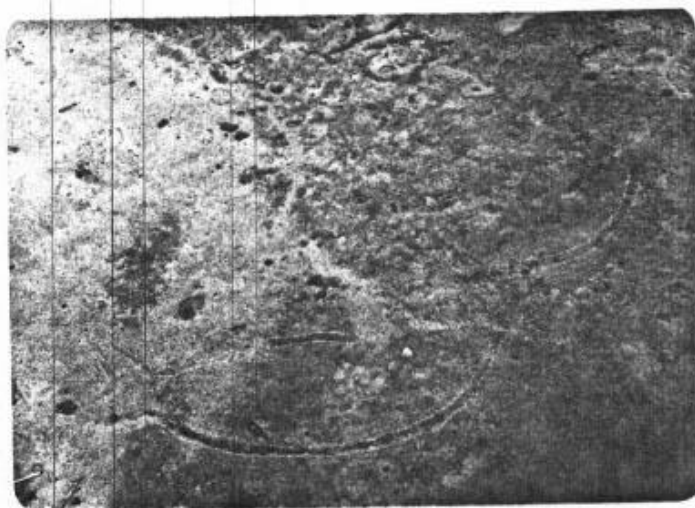


Photo 33: The remains of the small fish group at Site E, group i. More recently engraved initials can be seen on the rock surface in the background.

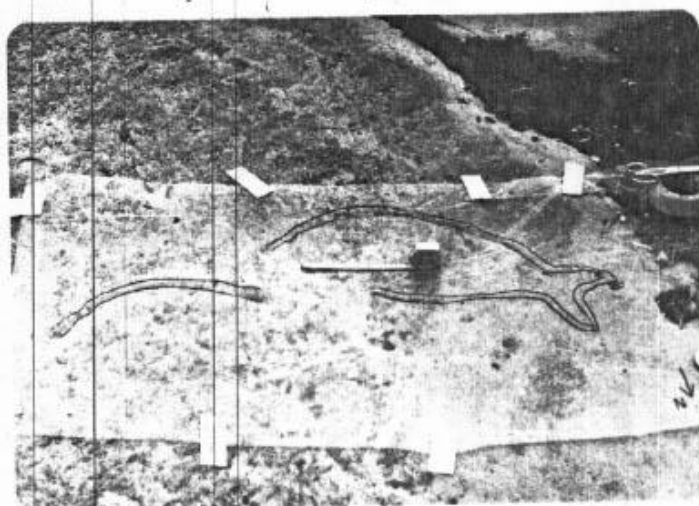


Photo 34: Polythene tracing of the small fish group remnants, Site E, Group i. The tape is extended 20 cm.

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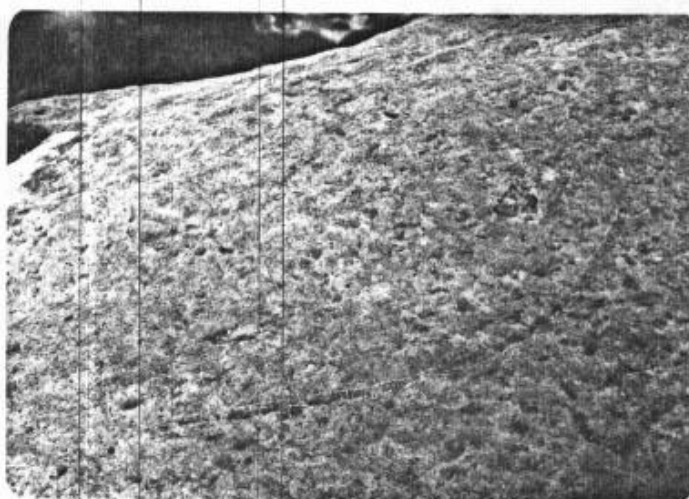


Photo 35: The remains of a stingray(?) at Site E, Group 1. The pitted surface of the rock at this location is observable.

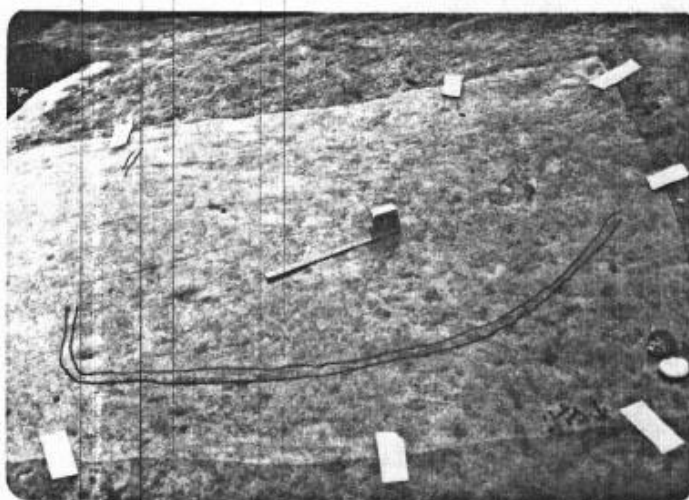


Photo 36: Polythene tracing shows the remaining grooves of the stingray(?), Site E, Group 1. The tape is extended 20 cm.

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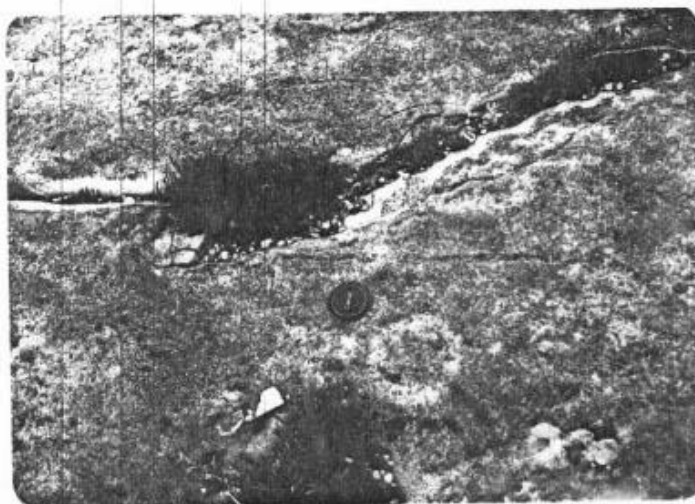


Photo 37: Remnants of another figure at Site E, Group 1. Possibly once a fish.

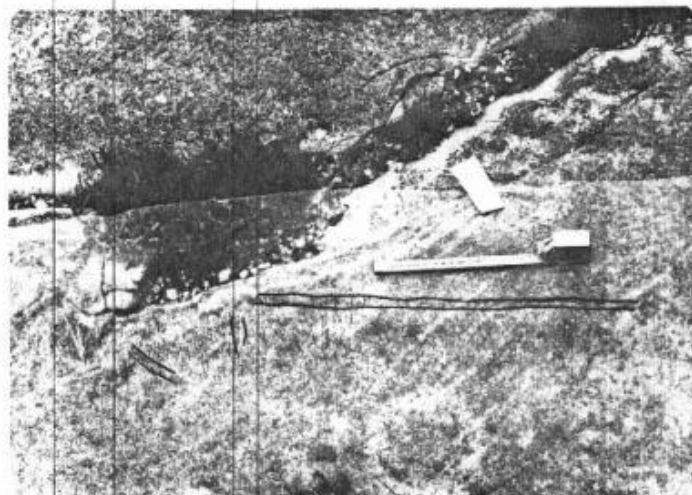


Photo 38: Polythene tracing of the partial figure photographed above, indicates the position of the remaining grooves. The tape is extended 20 cm.

