

PYRMONT PENINSULA PLACE STRATEGY

Indigenous Cultural Heritage Report

Prepared for the Department of Planning, Industry and Environment

City of Sydney Local Government Area

October 2020

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Executive Summary

The Department of Planning, Industry and Environment (DPIE) is leading the development of the Pyrmont Peninsula Place Strategy in response to the Greater Sydney Commission's (the Commission) review of planning for the Western Harbour Precinct, including the Pyrmont Peninsula. The location of the Pyrmont Peninsula assessment area is broadly defined by the Greater Sydney Commission's planning review document. The Pyrmont Peninsula assessment area is located within the City of Sydney Local Government Area.

Kelleher Nightingale Consulting Pty Ltd was engaged by DPIE to undertake an Aboriginal Heritage Assessment and prepare an Indigenous Cultural Heritage Report to provide advice and to inform the development and finalisation of the Pyrmont Peninsula Strategy. The aim of the assessment is to identify and consolidate an understanding of the Aboriginal archaeological resource and cultural landscape associated with the Pyrmont Peninsula, and to provide DPIE with strategic advice for how to effectively incorporate Aboriginal heritage values into the Pyrmont Peninsula Place Strategy. This assessment has been conducted with reference to the DPIE Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales, Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales and the Guide to investigation, assessing and reporting on Aboriginal cultural heritage in NSW.

Due to Covid-19 restrictions on face-to-face consultation and the increased risk of coronavirus to vulnerable members of the Aboriginal community, no Aboriginal community consultation has been undertaken for the project to date. Only preliminary desktop assessment and field inspection investigations have been undertaken. Next steps will include comprehensive cultural assessment and Aboriginal community consultation process.

Background research and archaeological assessment have been undertaken for the project and identified six Aboriginal archaeological sites within the study area. Identified sites consist of five PAD areas and one shell midden with artefact. Aboriginal archaeological sites identified within the Pyrmont Peninsula study area consist of:

The Bays Precinct PAD02	AHIMS 45-6-3338
Jacksons Landing Shelter	AHIMS 45-6-2960
The Bays Precinct PAD02	AHIMS 45-6-3339
Ultimo PAD 1	AHIMS 45-6-2652
Darling Central Midden	AHIMS 45-6-3217
UTS PAD 1 14-28 Ultimo Rd Syd	AHIMS 45-6-2979

Further Aboriginal archaeological assessment would be required prior to any impacts to Aboriginal archaeological sites and should be undertaken in accordance with the requirements of the relevant legislation. One Aboriginal heritage feature, 'Tinker's Well' was identified within the study area. Future Aboriginal cultural assessment should include the Aboriginal heritage feature in order to determine its cultural or social value to the contemporary Aboriginal community.

Despite evidence of extensive landform and landuse disturbance throughout the study area, areas present across the original landform which have been subject to limited ground surface modification have the potential to contain remnant natural soils. Any remnant natural soils (buried or exposed) have the potential to retain any attendant subsurface Aboriginal archaeological deposit. The approximate extent of the original peninsula landform within the study area (prior to reclamation works) has therefore been identified as an area of archaeological sensitivity. Further Aboriginal archaeological assessment would be required prior to impacting any area of archaeological sensitivity, on a project-by-project basis.

Key recommendations for further consideration of Aboriginal heritage values within the Pyrmont Peninsula Place Strategy have been developed based upon archaeological assessment, environment assessment and cultural factors relevant to Aboriginal heritage. These recommendations include Aboriginal community consultation, Aboriginal cultural assessment and further consideration of archaeological sensitivity and potential for future development. The Place Strategy should also incorporate potential Aboriginal heritage interpretation options.

Aboriginal enduring sense of Place

Archaeological assessment clearly shows that the Pyrmont Peninsula was not a blank canvas prior to the arrival of Europeans. Instead, the peninsula operated in a manner similar to current and planned future usage; with Aboriginal domestic hubs, industry, social and spiritual values embedded in the pre-European landscape. Future plans for Pyrmont should seek to highlight and continue the enduring Aboriginal spatial connection by demonstrating the sociocultural connection from Aboriginal times into the present. Technology has progressed with time, however the perceptions of space within and around Pyrmont remain similar from past to present. The Pyrmont Aboriginal story is important to the concept of place because it demonstrates how the innate human response to space, transcends time and cultures. The feelings and connections we have with places today, in many ways, mirrors past feelings and connections. The enduring sense of Aboriginal place demonstrates that no matter how the future space changes an unbreakable connection links us to the past.



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1 Introduction

The Department of Planning, Industry and Environment is leading the development of the Pyrmont Peninsula Place Strategy in response to the Greater Sydney Commission's (the Commission) review of planning for the Western Harbour Precinct, including the Pyrmont Peninsula. The location of the Pyrmont Peninsula assessment area is broadly defined by the Greater Sydney Commission's planning review document and is shown on Figures 1 & 2. The Pyrmont Peninsula assessment area is located within the City of Sydney Local Government Area (LGA) and is hereafter referred to as the 'study area'.

Kelleher Nightingale Consulting Pty Ltd (KNC) was engaged by the Department of Planning, Industry and Environment (DPIE) to undertake an Aboriginal Heritage Assessment and prepare an Indigenous Cultural Heritage Report to provide advice and to inform the development and finalisation of the Pyrmont Peninsula Strategy. The aim of the assessment is to identify and consolidate an understanding of the Aboriginal archaeological resource and cultural landscape associated with the Pyrmont Peninsula, and to provide DPIE with strategic advice for how to effectively incorporate Aboriginal heritage values into the Pyrmont Peninsula Place Strategy.

1.1 Study objectives

The core objectives of the current Indigenous Cultural Heritage Report and Aboriginal heritage assessment are:

- To understand the Aboriginal heritage of the Pyrmont Peninsula, as well as more recent Aboriginal and Torres Strait Islander contemporary history and cultural connections
- Gain an appreciation of the role and value of Aboriginal heritage for place identity, vision and character today, particularly the role of heritage to create an authentic, attractive and vibrant place
- Develop an understanding of the characteristics of the Pyrmont Peninsula in relation to Indigenous heritage, cultural, political, social and related economic significance
- Prepare an evidence-base and provide strategic advice to support the Place Strategy, including urban design framework, master plan and recommendations and changes to deliver a simplified planning control at a subprecinct and site-scale
- Make recommendations on amendments to planning control to enable the urban design framework and
 master plan to be implemented, including provision of technical information and other evidence to support
 change to land use planning controls to satisfy relevant NSW guidelines
- Identify opportunities for Indigenous recognition in the public domain
- Identifying places of Indigenous heritage significance
- Identifying places of potential Indigenous archaeological significance
- Make recommendations on how matters of Indigenous heritage can be considered as part of ongoing governance of the Pyrmont Peninsula.

1.2 Assessment process

The assessment process is a step by step method designed to give a baseline level of information outlining opportunities and constraints related to Aboriginal heritage. The relevant steps are:

- Environmental context review of environmental factors and land use history, assess the implications these
 have for Aboriginal archaeology and heritage
- Aboriginal Archaeological and Cultural context gather existing resources, review Aboriginal heritage information management system (AHIMS) database and other known information sources
- Background Analysis a review and synthesis of existing available information
- Desktop archaeological assessment and visual inspection
- Summary and recommendations to inform the Place Strategy and future heritage direction

This assessment has been conducted with reference to the (former) Office of Environment and Heritage (OEH) *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (OEH 2010), *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* and the *Guide to investigation, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011).



1.3 Aboriginal Community Consultation

The aim of Aboriginal community consultation is to integrate cultural and archaeological knowledge and ensure that the contemporary Aboriginal community have information to make decisions on Aboriginal cultural heritage. Consultation with Aboriginal stakeholders is essential for identifying the Aboriginal cultural heritage sites, values, constraints and opportunities for the Pyrmont Peninsula Place Strategy. Consultation for the assessment will ensure Aboriginal stakeholders are offered an opportunity to contribute to the Place Strategy and the management of Aboriginal heritage within the Pyrmont Peninsula.

Due to Covid-19 restrictions on face-to-face consultation and the increased risk of coronavirus to vulnerable members of the Aboriginal community, no Aboriginal community consultation has been undertaken for the project to date. Only preliminary desktop assessment and field inspection investigations have been undertaken.

Metropolitan Local Aboriginal Land Council (Metro LALC) have been provided with a copy of the current preliminary report and have been invited to provide comment. Next steps will include comprehensive cultural assessment and Aboriginal community consultation process.

Consultation will be undertaken in accordance with best practice guidelines and any relevant engagement strategies or consultation requirements identified during the assessment process.



Figure 1. Overview of study area

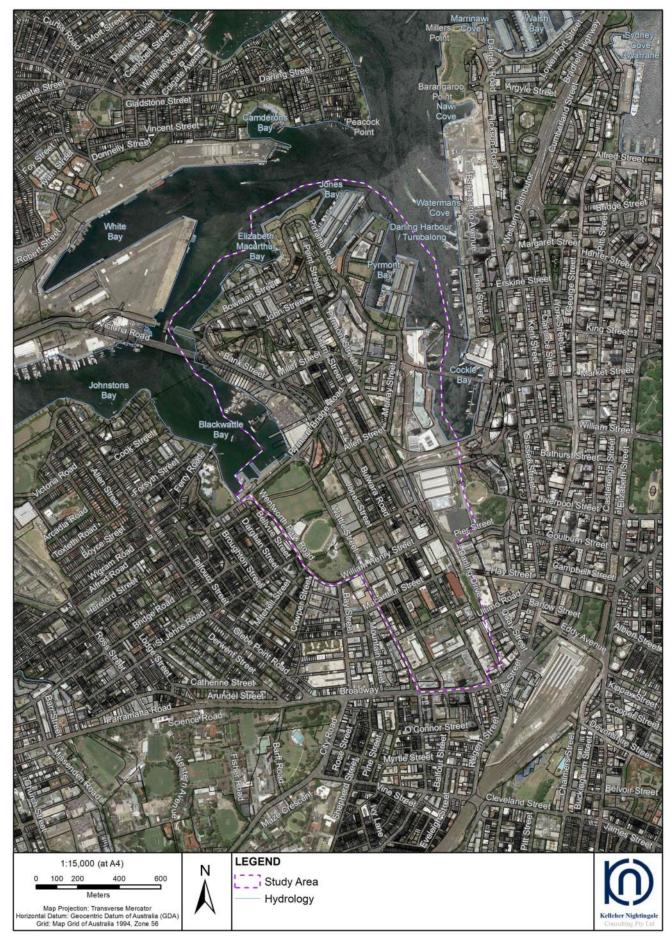


Figure 2. Detail of study area

2 Environmental Context

2.1 Geological context

The study area is located on the Sydney Harbour Foreshores, a physiographic region of the Sydney Basin. The Sydney Basin is a large geological feature stretching from Batemans Bay in the south to Newcastle in the north and Lithgow in the west. The oldest, Permian layers of the Sydney Basin consist of marine, alluvial and deltaic deposits that include shales and mudstone overlain by coal measures. The formation of the basin began between 250 to 300 million years ago when river deltas gradually replaced the ocean that had extended as far west as Lithgow, and sand, silt and clay eroded from inland mountains was brought down by rivers and deposited where these rivers met the sea. By the Triassic period the basin consisted of a large coastal plain, with geological deposits from this period divided into three main groups: the lower sandy sediments were compacted into the deeper sandstones and shales known today as the Narrabeen Group, the middle levels formed Hawkesbury Sandstone and the youngest upper layers of compressed silt and clay became Wianamatta Shale. The breaking up of the Gondwana supercontinent, earth movements, and volcanic activity in later geologic periods led to the formation of the Blue Mountains and gradual sinking of the Cumberland Plain to the west.

During the Tertiary period, the development of large river networks across the Plain and the movement of these towards the Tasman Sea carved deep gorges and valleys into the erosion-resistant sandstone near the coast. A series of glaciations or ice ages during the later Pleistocene resulted in significant sea level fluctuations – at the Last Glacial Maximum (c. 21,000 years ago), sea levels were approximately 125 metres lower than the present day, and a coastal plain up to 15 kilometres wide extended beyond the present day coastline of Port Jackson out onto the continental shelf. As the global climate began to warm around 15-13,000 years ago, the ice caps melted and sea levels rose, drowning the coastal plain and former river valleys and gorges to form Broken Bay, Port Hacking and Sydney Harbour. Sea levels stabilised around 6000 years ago with the last of the polar ice melt. Vertical cliffs and headlands in sharp relief are common features along the coast and eastern part of the harbour, due to the erosive action of waves on the underlying sandstone, with the same processes acting to some degree on the peninsulas extending into Port Jackson. The general lack of flat land extending inland from the foreshore on headlands is because these result from former river escarpments above the ancient valley.

The underlying bedrock geology of the study area is primarily Hawkesbury Sandstone (Rh) which fringes the drowned valley estuary of the Parramatta River and Port Hacking (Figure 3). Higher ground to the south east and south west is capped with Ashfield Shale (Rwa) of the later Wianamatta Group, associated with the elevated ridge system running beneath Glebe, Camperdown, Surry Hills, Darlinghurst and the southern Sydney CBD. Hawkesbury Sandstone geology is characterised by fine to coarse grained quartzose sandstone with minor interbeds of siltstone/sandstone laminate, siltstone and claystone. Ashfield Shale comprises black to light grey shale and laminate.

Geological mapping of more recent Quaternary sediments and features provides some indication of the significant environmental changes that have taken place around the foreshore since European settlement, primarily via reclamation, dredging and modification of the waterfront (Troedson and Deyssing 2015). The entirety of the Pyrmont peninsula is fringed with reclaimed estuarine areas, with underlying sediments comprised of man-made fill (dredged estuarine sand and mud, demolition rubble, industrial and household waste) with silty to peaty quartz sand, silt and clay with ferruginous & humic cementation in places and common shell layers. Jones Bay Wharf, Darling Island Wharf and Sydney Wharf south to Pirrama Road are all comprised of man-made fill, with the location of the former Darling Island classified as 'Disturbed Land' following its levelling and connection to the mainland in the late 19th century. The reclamation around the harbour front and infilling of former estuarine areas has elevated the low-lying swampy lands at the head of the bays between headlands, most of which had small freshwater streams discharging to the harbour. Few to no undisturbed Quaternary sediments remain along the southern shores between Rose Bay and Concord.

2.2 Soil landscape

The study area intersects four mapped soil landscapes (Figure 4), the development and occurrence of which are influenced by the underlying geology and topography. The Hawkesbury Sandstone of the original peninsula is primarily overlaid by the erosional Gymea soil landscape. This soil landscape is characterised by undulating to rolling hills and rises fringing the sandstone plateaux around the harbour. Rock outcrop is generally less than 25% and primarily occurs as low broken scarps and narrow to wide outcropping rock benches. Steep sideslopes can be subject to rock falls. Soils are generally shallow but may be moderately deep inside of benches and in drainage lines. Soil materials consist of yellow earths and sands, as well as both gleyed and yellow podzolics. Removal of vegetation can cause severe sheet erosion and gully erosion is common along tracks and trails. Gymea soils are also highly susceptible to erosion from both concentrated and non-concentrated flows. Within the study area, Gymea soils occur on the more elevated land around the spine of the peninsula south to Parramatta Road and Broadway. Aboriginal sites within these areas are likely to be disturbed low-density scatters exposed by the eroding landscape, highly susceptible to displacement via landscape disturbance.

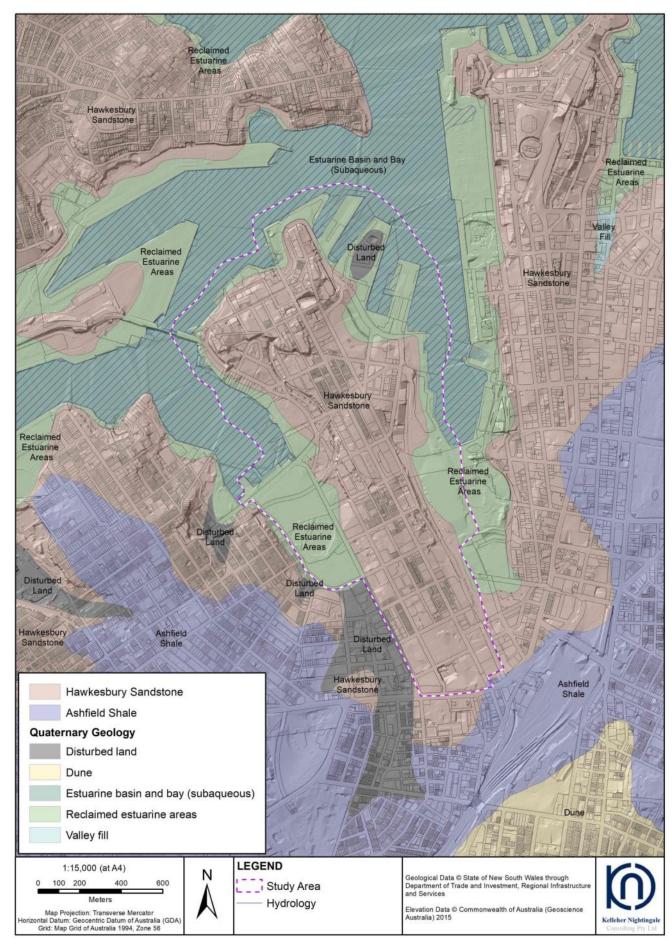


Figure 3. Geology of the study area

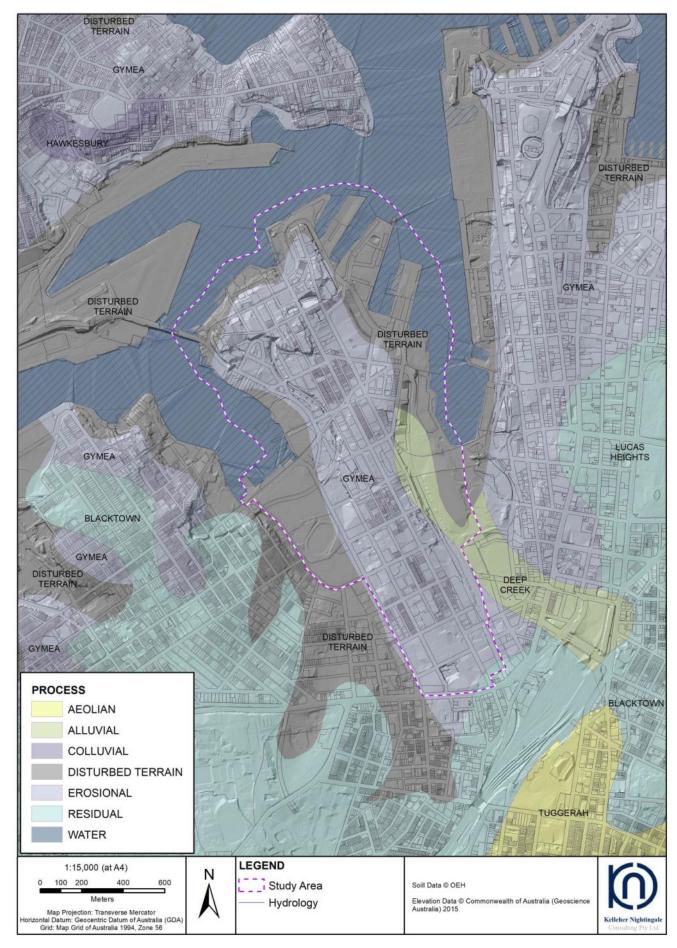


Figure 4. Soil landscapes of the study area

In the eastern part of the study area, around the western side of Cockle Bay and south towards Haymarket, is a small occurrence of the alluvial Deep Creek soil landscape. Deep Creek soils are associated with level to gently undulating alluvial floodplains on the lower, non-tidal reaches of watercourses draining the Hawkesbury Sandstone. These flooded river valleys have been infilled with alluvium and are surrounded by steep to precipitous slopes. Within the study area, these soils are associated with the former course of Cockle Creek, which ran from near Central Station into Cockle Bay (now Darling Harbour). Soil types include deep podzols on well-drained terraces, siliceous sands on active floodplains and humus podzols in low-lying areas. Limitations include flooding, extreme erosion hazards and permanently high water tables. Deep Creek soils usually form part of active, aggrading landscapes and their archaeological potential is highly dependent on the topographic and geomorphological factors at play in a particular location.

A small portion of the south eastern corner of the study area is located atop soils derived from the residual Blacktown soil landscape. Blacktown soils consist of shallow to moderately deep hard setting red, brown and yellow podzolic soils with low soil fertility, and are derived in situ from the underlying shale-based geology. They are subject to minor to moderate erosion where surface vegetation is not maintained (Bannerman and Hazelton 1989). As a residual soil landscape, Blacktown soils have the potential to conserve archaeological deposits intact where disturbance levels are low but these are likely to retain horizontal integrity only (i.e. stratification of deposit is rare).

The Disturbed Terrain landscape has also been mapped across large parts of the study area, roughly analogous with the reclaimed estuarine areas and adjoining landforms that have been extensively modified and disturbed by human activity. These areas are characterised by the complete disturbance, removal, or burial of original soils. Within the study area, the reclaimed and filled former estuarine foreshores and lower reached of watercourses comprise Disturbed Terrain, as well as the formerly swampy and low-lying area around Darling Harbour, and areas levelled via cut-and-fill for construction or industry. These disturbed areas are often landscaped and artificially drained. Landform elements include berms, cut faces, embankments, mounds, pits and trenches. Landfill within Disturbed Terrain areas consists of dredged estuarine sand and mud, demolition rubble, industrial and household waste, rocks and repurposed local soil materials. In parks and areas of open space, the fill is usually capped with sandy loam or compacted clay and turfed. Original vegetation is completely cleared. Most disturbed areas are eventually artificially topsoiled and revegetated or covered by buildings, concrete or bitumen. Potential for intact Aboriginal archaeological deposit is restricted to possible remnant areas of natural material, in cases where fill was introduced on top of natural soils without significant disturbance to the former natural ground surface.

2.3 Landform, topography and hydrology

The study area is located across a north-east to south-west running ridgeline forming the spine of the Pyrmont peninsula, running roughly the length of Harris Street and Bulwara Road. Contemporary elevation mapping and topography is shown in Figure 5, which shows the alignment of the ridge and its position as one of a series of peninsulas extending out into Port Jackson, separated by narrow embayments. The ridge is flanked by moderate to steep slopes dropping down to the low-lying areas associated with the former estuarine embayments of Blackwattle Bay and Cockle Bay/Darling Harbour. A lower-lying area also separates the ridge from the higher ground associated with the Ashfield Shale-capped ridge system to the south, near present-day Central Station.

Historical mapping and sketches of the settlement at Port Jackson give some indication of the original character of the Pyrmont peninsula and headland prior to the extensive modifications and disturbance that commenced in the later part of the 19th century (refer Figures 6 and 7). A map from 1822 shows a narrow, undulating ridge flanked by steep slopes dropping down to an irregular and rocky shore line. Sandier bays and mudflats fringe the eastern side of the peninsula around Darling Harbour. The former Darling Island is clearly shown at the north eastern tip of the peninsula, surrounded by water marked with protruding rock hazards (indicated by small cross marks on the 1822 map) and separated from the mainland by a mudflat. To the south east, the original Pyrmont Bay was much wider and offered a strip of sandy beach and broadly curving foreshore backed by steep slopes rising to the ridge top. These steep slopes were precipitous in places, with a sheer cliffline drop to the water marked around a small headland near the present-day Novotel above Darling Drive.

To the south and east of this headland, slope gradients became more gentle, leading down to the estuarine mouth of Cockle Creek. A somewhat pronounced narrowing near the southern end of the ridgeline is visible on Figure 6, with the area to the south marked by symbols indicating it was 'low and sandy'. This low-lying landscape was associated with the margins of the Blackwattle Bay estuary and the lower reaches of Cockle Creek and was a swampy, marshy environment. Original hydrology of the study area and surrounds has been substantially altered, but fresh water would have once been available from the higher reaches of both Blackwattle Creek and Cockle Creek, above the tidal influence. A freshwater spring has also been recorded at the northern extent of the Pyrmont peninsula (see Section 3.4), and other small springs and soaks may have occurred in the underlying sandstone. No creeks or other permanent water sources were known to be present on the ridgeline itself.

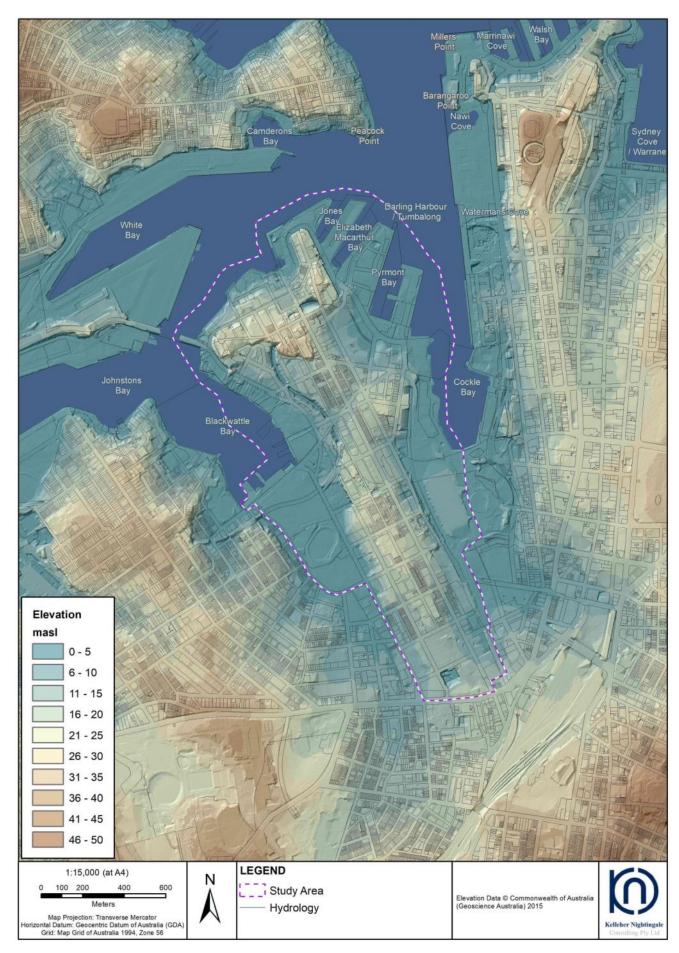


Figure 5. Topography of the study area

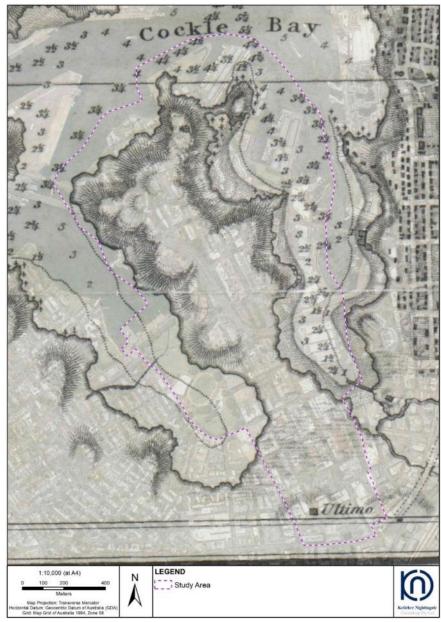


Figure 6. Study area overlaid on 1822 map *Port Jackson, New South Wales* by John Septimus Roe, Lieut. R.N. State Library of NSW Dixson Map Collection Z/Cb 83/1.

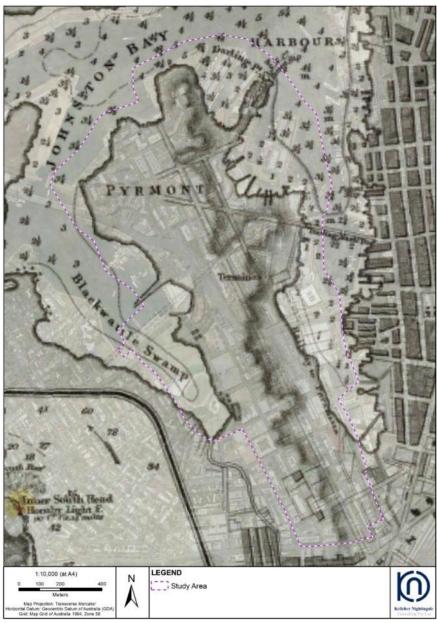


Figure 7. Study area overlaid on 1857 map *Australia, Port Jackson* surveyed under the direction of Captain Denham. National Library of Australia Special Map Col./33.



Landforms within the lower-lying alluvial and estuarine areas would have included gentle terraces, slopes and creekflats extending through the drainage valley, generally glanced by steeper slopes associated with the sides of the sandstone and shale ridgelines which contained them. The lower reaches of the watercourses were tidal, with the headwaters springing from the elevated lands to the south east and south west and comprising fresh water fed and filtered through the seepage of mosses and undergrowth in the upper closed valleys. The location where fresh and salt-water met at the head of the estuarine incursions usually comprised low-lying sandy marshes and swamps.

To the east of the study area, Cockle Creek (also known as Darling Creek) was a small watercourse which began in the vicinity of present-day Foveaux and Riley Streets, following the alignment of Sophia Street through a settlement of brickmakers then north in front of the Albion Brewery to present-day Belmore Park. The section of Hay Street to the east of George Street, which was added after the creek was turned into an underground drain, follows the path taken by the creek to the marshes which encircled the head of Cockle Bay (Darling Harbour). To the west, Blackwattle Creek was an important waterway in the early years of the colony. The principal creekline rose in a swamp where Prince Alfred Park is today, running through Chippendale and across Broadway into Ultimo, entering Blackwattle Bay in a large swamp where the Sydney City Council Depot in William Henry Street now stands. Other tributaries had their sources at Erskineville, Lake Northam in Victoria Park, and at a spring near Pitt Street in Redfern. These converged around present-day Kelly Street in Ultimo at the head of the broad swamp.

2.4 Vegetation and land use history

The entirety of the study area has been cleared of original old-growth vegetation, however an appreciation for what the area would have looked like prior to European arrival can be gained by considering which vegetation communities would have occurred. This also aids in establishing what resources would have been available for local Aboriginal groups to use. When considered on a broader scale, the study area forms part of several sub-regions landscapes that share a distinct character. The National Parks and Wildlife Service (NPWS) Bioregional Assessment (NPWS 2003) places it within the Pittwater sub-region of the Sydney Basin, characterised by plateaux and ridges of quartz sandstone with thin shale caps. Small beach, dune and lagoon barrier systems occur and sandstones are exposed in valleys and along the coast, with steep coastal cliffs and rock platforms.

Vegetation and plant communities differ depending on underlying geology, soils and landform. Shale caps support tall forest of Sydney blue gum and blackbutt or turpentine and grey ironbark. On the elevated sandstone plateaux and ridge systems, Sydney peppermint, smooth-barked apple, scribbly gum, red bloodwood and yellow bloodwood occur with diverse shrubs and patches of heath. Blackbutt, turpentine, coachwood and water gum are found in deep sheltered gullies. Spotted gum, Deane's gum, bangalow palm, and forest oak occur on Narrabeen sandstone lower slopes with banksia and tea-tree heath on dunes. Bangalay, swamp mahogany, cabbage tree palm, swamp oak, common reed and cumbungi are present in fresh swamps, with various mangrove and saltmarsh communities in quiet estuaries (NPWS 2003).

Mitchell (2002) characterises the study area slightly more specifically, being part of the Port Jackson Basin (a subregion of the Sydney Basin – Pittwater landscape). According to this characterisation, most of the study area (which comprises sandstone slopes) would have had only patches of uniform or gradational sandy soil on narrow benches and within joint crevices, supporting forest and woodland of Sydney peppermint (*Eucalyptus piperita*), smooth-barked apple (*Angophora costata*), red bloodwood (*Corymbia gummifera*) and blackbutt (*Eucalyptus pilularis*). More sheltered gullies would have contained some turpentine (*Syncarpia glomulifera*), coachwood (*Ceratopetalum apetalum*) and water gum (*Tristaniopsis laurina*). Estuarine sands and swamps such as those to the east and west of the Pyrmont peninsula were originally dominated by saltmarsh but have been taken over by grey mangrove (*Avicennia marina*) in the past century (Mitchell 2002:119).

Saltmarsh can contain species not found in any other plant community and are an important part of both marine and land ecosystems. They are nurseries and breeding grounds for fish species, and form a key habitat and food source for migratory birds. The salt marshes and swamp around the Blackwattle and Cockle Creek estuaries would have offered diverse flora, including twig rush (*Baumea juncea*), Sea Rush (*Juncus krausii* subsp. *australiensis*), Samphire (*Sarcocornia quinqueflora* subsp. *quinqueflora*), Marine Couch (*Sporobolus virginicus*), Streaked Arrowgrass (*Triglochin striata*), Knobby Club-rush (*Ficinia nodosa*), Creeping Brookweed (*Samolus repens*), Swamp Weed (*Selliera radicans*), Seablite (*Suaeda australis*) and Prickly Couch (*Zoysia macrantha*). Mangroves may have had a scattered presence on the saline mudflats at the swamp mouths, with the edges fringed by tall reeds. The higher reaches of the creeks where freshwater predominated would have contained smaller zones of tall wet sclerophyll forest of Sydney blue gum, river peppermint and blackbutt with water gums along the creekbanks. Depauperate rainforests also occur, with species similar to those previously known for the head of the Blackwattle Swamp valley: pittosporum (*Pittosporum undulatum*), black wattle (*Callicoma serratifolia*) (hence the locality name), native myrtle (*Backhousia myrtifolia*) and tree ferns (*Cyathea australis* and *Dicksonia Antarctica*) with occasional cabbage tree palms (*Livistona australis*). A sketch from the mid-19th century shows several of these species present in the locality around Blackwattle Creek, despite obvious European land clearance by this date (Plate 1).

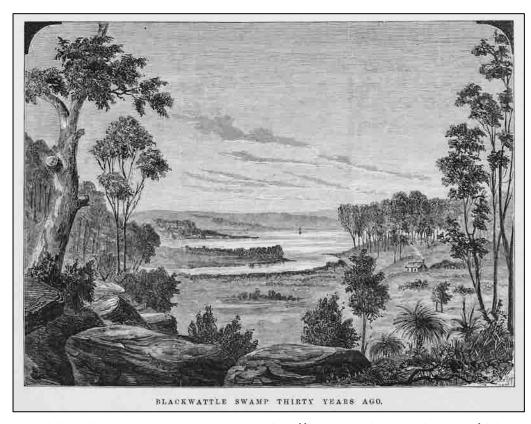


Plate 1. Blackwattle Swamp and Creek c. 1854. Source http://www.visitsydneyaustralia.com.au/glebe.html.

The *Dictionary of Sydney* notes that despite its proximity to the original settlement of Sydney, the development of Pyrmont was slow until the 1840s, and that "early artists sometimes portrayed Pyrmont as an isolated place, shrouded in mist, in the background of the city, a place where Aboriginal people gathered to keep watch over the strange ways of the new arrivals who were beginning to inhabit the area" (Fitzgerald 2008a). Some early European settlers recalled a distinct Aboriginal presence up to the 1830s. In the early years of the settlement, the majority of European visitation to the peninsula would have taken place by boat as it was a short journey around Millers Point from Sydney Cove or across Darling Harbour from the southern parts of the settlement. The small, sandy bays of the headland were popular for picnicking and recreation and likely felt a world away from the burgeoning settlement. Particular interest was aroused during an 1806 visit by John Macarthur, when a natural freshwater spring was identified at a picnic spot near the northern point of the peninsula. This led to the naming of the peninsula as 'Pyrmont' after a spa town in northern Germany known for its fine mineral springs. Macarthur later acquired the whole of the peninsula and named the little bay at its head after his wife, Elizabeth.



Plate 2. Cockle Bay now Darling Harbour, ca. 1819-20 by James Taylor. Mitchell Library, State Library of NSW ML 941

Macarthur built a windmill near the northern end of the peninsula in 1807 which was run and managed by Garnham Blaxcell. The mill was positioned on one of the highest points of the headland to catch sea breezes and formed a prominent landmark. Because of its elevation it could be seen from as far distant as the north shore, Observatory Hill and even from the South Head Lighthouse. The mill is shown in Major James Taylor's early 1820s panorama of Sydney (see Plate 2) and appears in numerous watercolour paintings of the period. The mill was built of local stone (one of the first of many buildings later constructed from the Pyrmont sandstone) in the triangle formed by present-day Mill, Point and Church Streets. The mill is indicated on the 1822 map (Plate 2) as "a lonely structure with no other buildings nearby". The mill did not last long; being unable to compete with the government mills, and was in ruins by the early 1820s, gaining a reputation as being haunted. The relative isolation and lack of development of the area may have contributed to it continuing to be frequented by Aboriginal groups through the 1820s.

Later developments on the peninsula were driven by the need for building materials, primarily the high quality Hawkesbury sandstone occurring at Pyrmont. From the 1840s, the western side of the peninsula was progressively quarried out with the resulting fine sandstone used in the construction of numerous civic buildings, for road and bridge construction and as ballast. While the Pyrmont area was subdivided in 1839, residential use was limited. Around the peninsula, some shipbuilding and an iron works were present. The Dictionary of Sydney (n.d.) describes how "a smattering of rough-hewn stone cottages appeared. But there was no stampede to populate Pyrmont, and never a time when its residents did not share the space with industry and quarries." Black Wattle Creek and Swamp to the west were declining by this point, following the establishment of abattoirs, boiling down works, a distillery and other noisome industry from the 1820s. The Pyrmont peninsula was mostly still accessed by water across Darling Harbour, and not via Ultimo in the southern part of the study area. Until the 1870s the low-lying and swampy area from the head of Cockle Bay to the head of Blackwattle Swamp, was the only part of Ultimo that was developed. The area to the south was a slum for some of Sydney's poorest residents, described as "a jumble of workshops, slaughter yards, boiling-down works and other scrappy industries... mixed in [were] unsanitary little cottages with cramped quarters, with people living cheek by jowl with domestic animals, with no water or sewerage, but any amount of flooding and sewage. Refuse and offal from the slaughter yards might be taken out on the tide, but often remained to rot on the mudflats" (Fitzgerald 2008b). The swamp was so unsanitary that it was infilled and reclaimed in the 1870s, followed by the establishment of Wentworth Park in 1882.

The more rural Ultimo landscape beyond Broadway was quite different in character. The initial land grant made to Harris stipulated that a road reserve be made along the peninsula, becoming Harris Street, but it was little used during the first half of the 19th century, with "a few cottage-dwellers dotted around, using the land under grace and favour to run a few cattle or do a little local quarrying, while contemporary reports indicate that the area was so unsettled as to remain hospitable to Aboriginal people who still frequented the area" (Dictionary of Sydney n.d.). Brewer Absalom West of Dawes Point recalled that as late as 1830 a 'tribe' of Aboriginal people were present around Darling Harbour. Despite its relative isolation and sparse usage during the first half-century of European settlement, later years saw huge changes to the physical landscape and environment. By the 1850s there were fifteen quarries operating on the peninsula, with works extending north along the escarpment above Wentworth Park. By the late 1860s, the northern shoreline around Elizabeth Bay was also quarried. The activities have caused extensive and significant changes to the natural landform, which are still visible today. Development of the Colonial Sugar Refinery in the 1870s also reshaped the northern part of the headland, with the entirety of the area levelled and extended for construction. An illustration prepared as part of a profile of the area in the late 1880s provides some indication of the change to the northern shore (Plate 3). The CSR facilities are clearly visible at left on their levelled extensions into the bay, while on the right the steep cut faces of the sandstone quarries are visible rising above Blackbutts Bridge (the precursor to the Glebe Island Bridge) and running south east behind Blackwattle Bay.

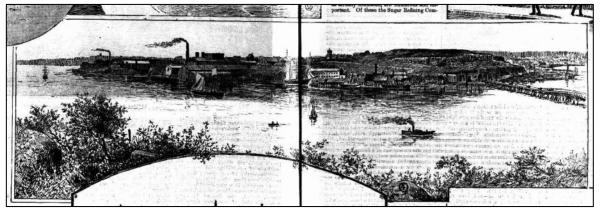


Plate 3. Pyrmont, from Glebe Island 1889 (Illustrated Sydney News).

Darling Island was also levelled and connected to the mainland during this period, with local quarry men hired for the task. In the early years of the British settlement, it was known as Cockle Island and Darling Harbour as Cockle Bay due to abundant shellfish along the shores. The island itself was described as 'rocky and inhospitable'. In 1855 the area was acquired by the Australian Steam Navigation Company, who established extensive slipways and engineering workshops. Development along the eastern side of the peninsula proceeded apace from the 1850s, with many of the small bays filled in, followed by the establishment of wharves for shipping and coal freight through the later part of the 19th century. The southern part of Cockle Bay was also filled and reclaimed at this time, with the swamp drained and replaced by levelled flats for warehousing and behind the jetties. The western part of the peninsula fronting Blackwattle Bay was also dominated by warehousing and storage facilities. Reclamation works continued through the 19th and early 20th centuries, leading to a modern landscape irrevocably changed from the original peninsula. Figures 8 and 9 show the stages of reclamation work around this part of the foreshore and wider CBD and help to place the changes at Pyrmont in context as part of a much wider program of alterations made to the Sydney estuary and Port Jackson.

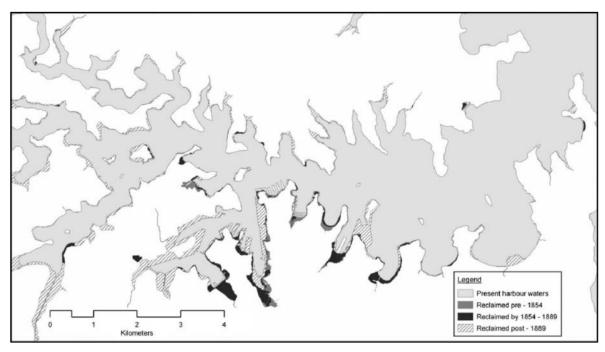


Figure 8. Reclamation in central Sydney estuary between 1788 and 1889 (reproduced from Birch et al. 2009)

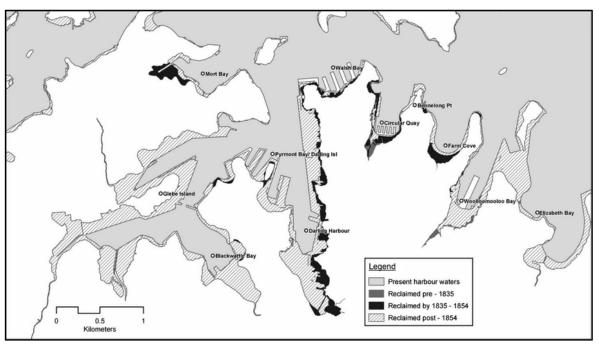


Figure 9. Reclamation in the CBD from 1788 to 1854 (reproduced from Birch et al. 2009)

The Figures show the progressive changes in the morphology of the headland and adjoining bays – the earliest works included levelling and quarrying of small strips fringing Elizabeth Bay and Blackwattle Bay, the joining of Darling Island to the mainland, and some small incursions into the head of the Cockle Creek swamp. Extensive works also took place along the eastern side of Darling Harbour at this time with the establishment of freight facilities and warehousing closer to the main settlement. These were followed by reclamation of the swampy estuaries and flats around Blackwattle Creek and Cockle Creek, the creation of Wentworth Park, and extensive works at Iron Cove and Glebe Island to the west. Long wharves were extended from the reclaimed bays out into the harbour, and the area became one of the most important freight, industrial and later passenger hubs in the state.

Construction on the higher ground of the ridge line often entailed extensive excavation and levelling of the naturally undulating ground surface, leading to stepped cuts into the underlying sandstone and streets at different heights separated by access ramps and stairs. The extracted material was often used as part of the reclamation works, effectively reshaping the headland, using the headland, but significant quantities of waste materials and landfill were also introduced to achieve the volume required for total infilling. The result of these centuries of transformative works is a study area which is quite different in shape and character to the one originally inhabited and used by the traditional Aboriginal owners.

2.5 Implications for Aboriginal archaeology and heritage

The DPIE *Code of Practice* identifies several landscape features that were often used by Aboriginal people in the past and consequently are often associated with Aboriginal objects and archaeological sites, provided that the landscape has not been significantly disturbed. An evaluation of landscape features within the study area aids in assessing whether Aboriginal archaeology is likely to exist. The reason for this is two-fold: the physical environment influences the available economic resources and hence the types of activities that people carried out in an area (hunting, gathering, camping, ceremonial activities, meeting places etc.) and it also determines whether a material record of this landscape use, in the form of archaeological sites, is likely to survive.

The study area forms part of a wider landscape that was important to, and intensively used by, Sydney's original inhabitants. The ethnohistorical record provides abundant evidence of Aboriginal landscape use around the foreshores of Port Jackson, and the interactions between the new settlers and local Aboriginal people form a key part of the historical narrative of Sydney and indeed the wider European settlement of the continent. Given the initially low level of development and European interest in the peninsula, the area around Pyrmont and Ultimo also seemingly maintained an Aboriginal presence as late the 1830s, long after the expanding settlement had alienated traditional lifeways from other parts of the harbour.

The diverse natural environment around the peninsula would have made it an attractive locale for resource-gathering, with a wide variety of flora and fauna available. The maritime and littoral resources of Port Jackson and Parramatta River to the west would have been easily accessible by canoe, while the tidal mudflats and sheltered bays would have provided access to various shellfish species. Cockle Creek and Cockle Bay were so named by the British for this very reason, with extensive cockle beds present. The saltmarshes at the edge of the estuaries would have supported a variety of plant and animal life including reptiles, amphibians, small mammals and birds. Reed plants from the swamps and estuaries were particularly used for fish nets and string bag-making. Fresh water was available from the higher reaches of the creeks and from springs on the ridge crests and slopes. While the swamps and lower-lying areas were rich in economic resources, they are unlikely to have been suitable for repeated or long-term habitation due to frequent flooding and marshy ground.

Occupation of the region is more commonly associated with rockshelters, which occur in suitable outcrops of the Hawkesbury Sandstone underlying the ridge lines and headlands. These were used as campsites, for habitation, and often contained charcoal and pigment art. Evidence of camping includes hearths, stone tools and middens. The sandstone was also used as a substrate for engravings and art sites, primarily on suitable flat outcrops. These were also used for grinding and smoothing stone axes near a watersource. Suitable outcropping for this usage is not known to occur in the study area. Overhangs suitable for use as shelters are likely to have occurred on the ridge slopes and above the small bays, where naturally exposed stone weathers to create cave-like shelters. Unfortunately, any shelters and overhangs in these areas are likely to have been quarried out early during this phase of historical development, particularly around the northern and western margins of the headland. The sandstone that once sheltered, housed and formed an artistic canvas for the traditional owners would be repurposed to serve the same function in the new colony as quarried blocks.

Further away from the foreshore and estuaries, the woodland resources of the ridge system would also have been important. The larger trees and vegetation communities on the ridgeline supported other terrestrial fauna including possums, gliders and bats, while kangaroo, wallaby and other mammals were also present in the hinterland. Plant resources, as well as providing important foodstuffs, were also used to construct spears, digging sticks, boomerangs and other tools. Forest trees yielded bark strips suitable for canoes and shelters, as well as fibres for string and rope. Other plants provided fish poison, dyes and paints.



European vegetation clearance and subsequent land use has had a detrimental effect on the thinner, sandier soils that occur above the Hawkesbury Sandstone, increasing erosion and destabilising sediment which is vulnerable to run-off. Stratified sites would not be expected to occur in open contexts on the more elevated landforms of the study area for this reason. Land clearance also tended to disturb the upper portion of the soil profile and any once-present archaeological deposit. Shelter formations would be more likely to preserve archaeological material but these have been subject to destruction. Similarly, midden sites once present around the foreshores are likely to have been disturbed and/or removed by reclamation works. The extensive midden deposits around Port Jackson were also a source of shell material for lime kilns during the early years of the settlement and many were carted away for industry. Whether any of these sites have survived is strongly dependent on the disturbance history at a particular location: whether materials were simply introduced atop existing deposit, or whether there was excavation or remodelling of the landform as well as introduction of fill. The former process would be more likely to 'cap' deposits and retain them below subsequent development, while the latter is more likely to have destroyed them. The potential for buried deposits should therefore be considered as part of development planning on the peninsula.

Any carved or scarred trees that were present in the locality have long been removed by vegetation clearance. The chief archaeological material that could be expected to remain within the landscape comprises stone tools. Raw materials suitable for lithic tool-making were widely available from regional geologies, including quartz and chert from the Hawkesbury Sandstone. Isolated artefacts may be present in areas of lower disturbance, but in the current study area any undisturbed areas would be considered few and far between. The general absence of recorded sites, and the extent of disturbance to the peninsula, would increase the rarity and significance value of any remaining deposits.

Another factor that must be considered is the broader-scale landscape changes the study area has been through. Aboriginal occupation of the Sydney region stretches back tens of thousands of years, and has not taken place in a static and unchanging environment. Massive environmental changes at the end of the last ice age reshaped the coastline and harbour, and any archaeological evidence of occupation along the former coast is now beneath the sea some 15 kilometres off the present shore line. The submersion of the coastal plain and river valleys resulting in the formation of Port Jackson would have placed peninsulas like Pyrmont at the new frontier between land and sea, and Aboriginal people would have developed new strategies to live on this land in a way that perhaps they had not previously done when it was part of the hinterland some 15 kilometres from the coast. Another consequence of this environmental change is the predicted age of archaeological sites. While the ocean reached its present position at the mouth of Port Jackson around 10,000 years ago, continued sea level rises encroached up the river valleys, forming the saltwater estuaries of the present day. Sea levels stabilised around 6,000-6,500 years ago — archaeological sites older than this, which would have occurred widely along the river valleys and coastal plain, have thus been submerged. A more recent record of Aboriginal occupation from the Holocene would therefore be the most common form of material remains.

The Pyrmont peninsula's history of place is one of change and contrast, and this is reflected in the physical environment. The human history of the locale extends back thousands of years, and its inhabitants have witnessed the shift from an inland riverine environment to an elevated harbour headland surrounded by estuarine swamps. The "isolated place, shrouded in mist, in the background of the city" during the early years of the colony maintained an Aboriginal presence through the first half of the 19th century, at a time when Aboriginal life-ways had been changed dramatically following European settlement. From this undeveloped picnic spot of the early colony, a short-lived attempt at industry with Macarthur's mill presaged the massive changes that were to take place over the following centuries with the quarrying and industrialisation of the peninsula.

There is some continuity to be found in the way the current inhabitants use the landscape – the Sydney Fish Markets on the western side of the peninsula supply seafood resources, the foreshore has slowly been reclaimed as public open space, education and technical facilities abound, native plantings have become a focus of revegetation programs in parks and reserves, new residential developments are present on the higher ground of the ridgeline while Cockle Bay and Darling Harbour form recreation and entertainment zones. The use of different spaces for different activities – habitation, industry, education, the gathering of food and drink, resource-processing, ceremonial and ritual life – can still be seen in the relationship between people and landscape today. Overall, Pyrmont's history is one of utility and value – this landscape has been used for thousands of years and Aboriginal people and Aboriginal history have formed part of all of these changes. The Aboriginal presence and connection to Pyrmont did not go away when the British arrived or through the subsequent changes and development of the area. The same values have been found in the place through time. The expression of this heritage via archaeological material may be limited due to physical landscape change, but the sense of place remains the same.

3 Archaeological and Cultural Context

The National Parks and Wildlife Act 1974 (NPW Act) is the primary statutory control dealing with Aboriginal heritage in New South Wales. Items of Aboriginal heritage (Aboriginal objects) or Aboriginal places (declared under section 84) are protected and regulated under the NPW Act.

Under the Act, an "Aboriginal object" is defined as "any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains". As such, Aboriginal objects are confined to physical evidence and are commonly referred to as Aboriginal sites.

Aboriginal objects are protected under section 86 of the Act. It is an offence to harm or desecrate an Aboriginal object, either knowingly [section 86 (1)] or unknowingly [section 86 (2)]. An Aboriginal heritage impact permit (AHIP) issued under section 90 (1) of the Act is required for any activity which will harm an Aboriginal object or declared Aboriginal place.

3.1 Database search (AHIMS) and known information sources

3.1.1 AHIMS web service

The Aboriginal Heritage Information Management System (AHIMS) is a database operated by OEH and regulated under section 90Q of the *National Parks and Wildlife Act 1974*. AHIMS contains information and records pertaining to registered Aboriginal archaeological sites (Aboriginal objects, as defined under the Act) and declared Aboriginal places (as defined under the Act) in NSW.

A search of AHIMS was conducted on 5 May 2020 to identify registered (known) Aboriginal sites or declared Aboriginal places within or adjacent to the study area (AHIMS Client Service ID: 502305). The search results are attached as Appendix A.

The AHIMS Web Service database search was conducted within the following coordinates (GDA, Zone 56):

Eastings: 331615 - 334425 Northings: 6248715 - 6252220

Buffer: 0 metres (search area included an extensive buffer)

The AHIMS search results showed:

29	9 Aboriginal sites are recorded in or near the above location*	
0	O Aboriginal places have been declared in or near the above location	

The distribution of recorded Aboriginal sites within these coordinates is shown on Figure 2. The frequencies of site types within the AHIMS database search area are listed in Table 1.

Table 1. Site features and context from AHIMS database search

Site Context	Site Feature	Number	Frequency (%)
Open	Aboriginal Ceremony and Dreaming; Artefact; Shell	1	3.8
	Aboriginal Resource and Gathering	1	3.8
	Artefact	7	27
	Artefact; Potential Archaeological Deposit	2	7.8
	Artefact; Shell	1	3.8
	Potential Archaeological Deposit	13	50
Closed	Potential Archaeological Deposit	1	3.8
Total		26	100

*Three registered AHIMS sites identified within the search area comprising Potential Archaeological Deposit site features have been updated and determined not to be Aboriginal archaeological sites. One registered AHIMS site has been listed as destroyed on the AHIMS database. The AHIMS results, the nature of previously recorded sites and previous archaeological investigations in the area are discussed further in Sections 3.2 and 3.3.



3.1.2 Other relevant sources of information

A search was undertaken of the following statutory and non-statutory heritage registers and databases for Aboriginal heritage items. Other planning instruments relevant to the study area were also reviewed for any Aboriginal heritage provisions.

- State Heritage Register and State Heritage Inventory
- Sydney City Local Environmental Plan 2012
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005
- Fire NSW Section 170 Heritage and Conservation Register
- Roads and Maritime Services Section 170 Heritage and Conservation Register
- RailCorp Section 170 Heritage and Conservation Register
- Sydney Water Section 170 Heritage and Conservation Register
- National Heritage List
- Commonwealth Heritage List
- Australian Heritage Database (Register of the National Estate Non-statutory archive) and
- City of Sydney, Barani website
- Dictionary of Sydney website
- Pyrmont History Group Website
- State Library of New South Wales (Online collection)

While many items of non-Indigenous (historic heritage) items are listed on the State Heritage Register, State 170 Heritage Registers and the Sydney City LEP 2012, none of these heritage items specifically or directly include Aboriginal heritage values as contributing to their historical significance.

No registered Aboriginal archaeological sites or Aboriginal heritage items were recorded on these databases within the study area.

One Aboriginal heritage feature, Tinker's Well was identified on the *City of Sydney, Barani* website as being located within the current study area. While the item is not listed on any formal heritage registers, this known Aboriginal heritage feature contributes to the Aboriginal cultural landscape of Pyrmont and is discussed further in Section 3.4.

The majority of existing planning instruments related to the study area do not contain specific guidelines for Aboriginal heritage. More specific heritage provisions have been identified in the *Sydney Regional Environment Plan Sydney Harbour Catchment*) 2005 instrument and can be found in Part 2 Clause 15 under 'Heritage Conservation' and Part 5 Division 3 'Protection of place of potential heritage significance'. The *Sydney City Local Environmental Plan 2012* also provides provisions for Aboriginal heritage in Part 5.10 under 'Heritage Conservation'. Both planning instruments have been developed in accordance with best practice guidelines and have been designed to work in combination with existing legislation which provide the legislative context for the protection of items of Aboriginal heritage (Aboriginal objects) or Aboriginal places (declared under section 84) under the *National Parks and Wildlife Act 1979*.

These documents outline planning principles which recognise the heritage significance of Aboriginal items and places, but also the role that preserving Aboriginal heritage and cultural landscape plays in maintaining, protecting and conserving the place identity of the wider City of Sydney LGA and more specifically, Sydney Harbour. Both instruments recognise that consultation with Local Aboriginal Land Councils and relevant local Aboriginal communities is imperative to establishing and achieving genuine heritage outcomes.

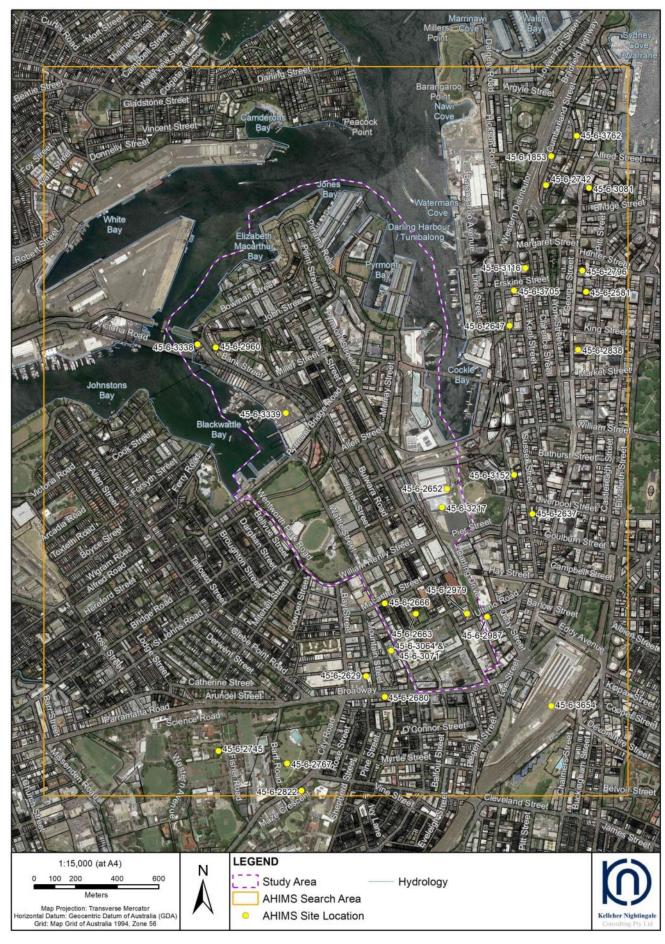


Figure 10. AHIMS search results

3.2 Discussion of AHIMS search results and previously registered Aboriginal archaeological sites

Eight registered Aboriginal archaeological sites were recorded within the Pyrmont Peninsula study area. A further 20 Aboriginal archaeological sites are recorded within the vicinity of the current study area and consist primarily of Aboriginal archaeological sites containing artefact and/or PAD areas. Three sites were originally recorded on the AHIMS databased as PAD areas, however these have subsequently been determined not to be Aboriginal archaeological sites and have been updated to 'Not a Site' on the database. The sites located within the study area are summarised below and shown on Figure 10.

AHIMS 45-6-3338 The Bays Precinct PAD02

The Bays Precinct PAD02 was originally recorded in 2017 as a result of archaeological investigations undertaken for the Bays Market Precinct Rezoning Project. The site was located along Bank Street, Pyrmont within 1A to 3 Banks Street Pyrmont. The site consisted of an area of PAD recorded The PAD covered an area of 55 x 35 metres and consisted of apparent undeveloped land at 1A Bank Street, Pyrmont and lands that appeared to not have been subject to modern development at 1-3 Bank Street, Pyrmont. The site card states that historical mapping indicated that this area did not constitute reclaimed land. Geotechnical investigations in these properties also indicated the presence of preserved natural soils.

AHIMS 45-6-2960 Jacksons Landing Shelter

Jacksons Landing Shelter consisted of rockshelter with PAD, originally recorded in July 2010 as part of archaeological instigations undertaken at Jacksons Landing Distillery Drive at Pyrmont. The site was located in the south eastern corner of the Jackson Landing site at the end of Distillery Drive, above a steep slope down to Bank Street/Bowman Drive. The site was recorded as immediately north of the fenceline to Lot 3 DP839057 and units at 120-122 Saunders Street. The site card recording notes that this was the only overhang north of the fenceline and that the site was located under a large sandstone boulder outcrop.

Initial inspection of the shelter revealed two areas of potential floor deposit over an area covering approximately 2.5 x 4.5 metres. The areas of potential were within the dripline of an approximately 2.5 metre thick overhanging piece of sandstone bedrock, forming the roof of the shelter. The northern area of floor deposit was recorded as approximately 1.5 metres deep, two metres wide and up to 1.4 metres deep below a large piece of roof fall. It was suggested that further deposit may remain underneath the roof fall. The southern area of floor deposit was located immediately south of the roof fall and was located on a moderate slope. This PAD area measured approximately two metres deep, and 2.5 metres wide. The rockshelter floor was strewn with whole bricks, construction rubble and vegetation. Subsequent removal of these materials revealed compact grey sandy deposit across the two previously identified areas of floor deposit. These were found to be devoid of introduced fill, reinforcing that these areas likely represented original shelter floor deposit with potential to contain Aboriginal archaeological remains.

Shell material was identified at the rear of the roof fall section of the shelter; Cockle shell (*Anadara trapezia*), whelk shell (*Pyrazus ebeninus*). An unidentified fragment of fishbone was also recorded on the surface of the floor deposit. The AHIMS site card noted that the shellfish would have been available in mudflats along Blackwattle Bay and it was likely this would have been available below the shelter prior to land reclamation works in the area. Furthermore, it was suggested that the shell species identified were known to have been commonly eaten by Aboriginal people. The site card recording acknowledges that whilst the presence of shell and fish bone was not a definitive marker of Aboriginal occupation, they provide evidence of likely use of the shelter by Aboriginal people. For this reason, it was considered 'likely' that the shelter had been utilised by Aboriginal people and there was potential for archaeological deposits to remain within the shelter. The potential of the deposit was considered to extend across all deposit present within the shelter dripline. Outside of this, substantial evidence of historic disturbance was present. No Aboriginal artefacts or evidence of art were identified within the shelter. The rock outcrop above the shelter was also inspected for any engravings, none were identified. The rock outcrop was considered unsuitable for engravings. The site card recommends that the rockshelter be treated as a site and recommended for long term protection.

AHIMS 45-6-3339 The Bays Precinct PAD01

The Bays Precinct PAD01 was originally recorded in 2017 as part of the Bays Market Precinct Rezoning Project archaeological assessment. The site consists of a registered PAD area located in Lot 2 DP 827434. The identified PAD encompassed an area measuring 70 x 70 metres and was generally defined by the existing public carpark for the Sydney Fish Market. Whilst the site condition was listed as poor, historical mapping indicated the presence of natural landform remaining underneath the carpark. The precise location of the natural landform could not be determined, but inspection determined that the area was mildly undulating and declined gradually towards the coast. The site card recording notes the possibility of natural landform occurring beneath paving

AHIMS 45-6-2652 Ultimo PAD 1

Ultimo PAD 1 consisted of an area of PAD recorded in 2003 within a portion of land located on the corner of Harris and William Henry Streets, Ultimo. The PAD area was identified as a result of site survey, predictive modelling and impact assessment. It was determined that areas of remnant soil may be present and buried at depth, below modern hard surfaces. These remnant soils had the potential to contain Aboriginal sites/objects. The site card stated that a test excavation program should take place prior to development to identify if any remnant soils remain.

The current AHIMS site coordinates appear to incorrectly plot the site east of Darling Drive at Darling Quarter. According to the site card information, the site should be located approximately 260 metres further to the southwest, on the northeast corner of Harris Street and William Henry Street, Ultimo.

AHIMS 45-6-3217 Darling Central Midden

The site was recorded in 2014 as part of an Aboriginal heritage assessment undertaken for the Sydney International Convention, Exhibition and Entertainment Precinct project. The site consisted of an Aboriginal shell midden with artefact. The site card offered limited information about the site features. However, an attached Aboriginal Site Impact Recording Form (ASIRF) indicated that the site has been subject to development works and partially destroyed. Despite this, the site remains wholly valid on the AHIMS database as of May 2020. The ASIRF information indicated that the construction of the new development would have minimal impact on the shell midden, with no deep excavation required, as the new ICC building was to be raised from existing ground levels. The new building was to be constructed on existing and new piles and strip footings and no basement was to be built. As a result, it was determined that any further midden material and evidence of Aboriginal occupation would be retained underneath the building.

Archaeological text excavation of the shell midden identified a sequence of middens within the assessment area, and along what would have bee, the original rocky foreshore of the western shore of Cockle Bay. It was suggested that this could represent one continuous midden distributed along the foreshore. A total of 63 artefacts were retrieved from the midden deposits. It was interpreted that the material used to manufacture these artefacts would have been traded with Darug clans in western Sydney. Salvage excavations uncovered a discrete knapping floor on the edge of the midden. The analysis revealed an a assemblage belonging to the Bondaian phase of the Eastern Regional Sequence, dating no earlier than 7,000 BP. Date ranges retrieved from two radiocarbon samples of the shell material, indicated that the shell was deposited between 1691 and 1935. However, land reclamation with the assessment area began between 1820 and 1850. The site card noted that reclamation of Cockle Bay in general had destroyed the habitat so completely that the large Sydney Mud Oyster (present within the recovered midden material) had become extinct by the 1850s. The archaeological assessment determined that although the tool types were utilised within the last 7,000 years, it would appear that this site was occupied for approximately 300 years before European settlement displaced Aboriginal people.

The site card also noted that the presence of in situ cultural shell midden was very rare and that its presence indicated the possibility for further Aboriginal sites to exist within the local area, despite later disturbance from colonial shell collectors and ongoing development. It was recommended that an interpretive program detailing the Aboriginal history and occupation of Darling Harbour be incorporated into the development project. It was also recommended that further archaeological investigations including subsurface testing be undertaken if any further unexpected Aboriginal objects, artefact or sites were uncovered during works. Metropolitan Local Aboriginal Land Council (MLALC) also expressed the importance and significance of the site as a tangible link to their ancestral past.

AHIMS 45-6-2979 UTS PAD 1 14-28 Ultimo Rd Syd

The site was a registered PAD area located at 14-28 Ultimo Road, Ultimo within the University of Technology, Sydney campus. The PAD area was recorded in a vacant lot which had been used temporarily as an open carpark. The site card offers little archaeological information. However, recommendations included on the site card stated that an AHIP should be sought for the PAD area, and an archaeological test excavation program undertaken at the earliest opportunity, prior to any development of the property. A program of 'Public Notification' was also recommended to be undertaken in accordance with DECCW consultation requirements.

AHIMS 45-6-2666 Wattle Street PAD 1

The site comprised a registered area of PAD located within a block subject to proposed redevelopment at Lot 1 DP 67592 (369-385 Wattle Street, Ultimo) in 2003. The PAD covered an area of approximately 0.3 hectares and was bordered to the west for the former alignment of Blackwattle Creek. The site card suggested that the area was covered by an extensive depth of fill, however there was potential for parts of the redevelopment block to contain sections of the original creek bank and flats associated with the Blackwattle Creek watercourse. It was determined that there was potential for the block to contain evidence for past Aboriginal occupation and that this evidence would likely occur in the form of a relatively low density distribution of flaked stone artefacts within a disturbed context. The site card included recommendations that the assessment area be subject to a Section 90 salvage excavation program prior to the commencement of redevelopment.



The current site AHIMS site recording location appears to incorrectly place on the corner of Wattle Lane and Macarthur Street. According to the site card information, the site should be located approximately 60 metres further to the west on the southwestern corner of Wattle Street and Macarthur Street, Ultimo.

AHIMS 45-6-2663 Mountain Street Ultimo

This site consisted of an artefact scatter retrieved from historical archaeological excavations undertaken for a property at 22-36 Mountain Street, Ultimo in 2003. The Aboriginal artefacts were recorded as isolated objects and included one tuff flake, one yellow chert flaked piece and one flaked piece of green bottle glass. The site card suggested that the artefacts would be consequently fully recorded during salvage of the assessment area and that the form would be updated. The site cards information stated that the artefacts were recorded on the edge of a tidal creek.

The site location appears to be incorrect, plotting the site approximately 70 metres northwest of the intersection of Bulwara Road and Mary Ann Street. According to the site card information, the site should be located approximately 280 metres further to the southwest, at 22-36 Mountain Street, Ultimo and not within the current study area.

3.3 Review of previous Aboriginal archaeological investigations

A limited number of Aboriginal archaeological investigations have been undertaken within the study area. Several Aboriginal heritage assessments have been undertaken for several large scale commercial development projects and precinct planning in the suburbs of Pyrmont and Ultimo. The pertinent studies are discussed in this chapter.

Sydney international Convention, Exhibition and Entertainment Precinct (SICEEP)

Aboriginal archaeological assessment was undertaken for the Sydney International Convention, Exhibition and Entertainment Precinct project at Darling Harbour (Comber Consultants Pty Ltd 2013). The assessment included lands located along the eastern boundary of the study area. The assessment included Aboriginal archaeological due diligence assessment and the formation of a management plan and research design for various stages of the development. Assessment included consultation and engagement with the Metropolitan Local Aboriginal Land Council (MLALC). The due diligence assessment encompassed a 60 hectare assessment area including waterfront precinct which was generally bound by the light rail to the west, Harbourside Shopping Centre and Cockle Bay to the north, Darling Quarter, the Chinese Garden and Harbour Street to the east and Hay Street to the South. Assessment included background research, visual site impact and impact mitigation assessment.

Background assessment concluded that potential for sub-surface archaeological deposit containing artefact scatters and/or shell midden remained within the south-western section of the assessment area, along (what would have been) the original shoreline of Cockle Bay. Potential for other forms of Aboriginal archaeological sites such as rock engravings, culturally modified trees or rockshelter were considered unlikely to occur as the assessment area did not contain any remnant native vegetation. The remainder of the northern and north-eastern sections of the assessment area comprised reclaimed land and it was considered unlikely that sites remained within these areas. The report highlighted how previous archaeological excavations undertaken Dominic Steele at the KENS site near Wynyard and by Comber Consultants at the newly established Darling Quarter had identified subsurface Aboriginal archaeological deposit beneath existing modern land surfaces and noted that both sites existed within a similar foreshore environmental context to the assessment area.

Impact assessment determined that subsurface archaeological testing and salvage excavation should be undertaken in areas where the original shoreline was 'likely to' or 'had the potential' to be buried and that these activities should take place prior to any development of these areas. The report stated that an excavation program would include archaeological testing, recording and salvage in areas where piling or other ground disturbance penetrating fill deposit was to be undertaken (Comber Consultants 2013). For transitional areas which were unlikely considered unlikely impact the original shoreline but where minimal potential existed, archaeological monitoring of development works was recommended. No further archaeological assessment was recommended for areas located on reclaimed land.

It was recommended that a Research Design and Management Strategy be developed for both monitoring activities and archaeological testing. It was also recommended that any archaeological monitoring or testing be undertaken in collaboration with MLALC. Further recommendations specified that if any artefacts were recovered from further archaeological assessment activities, that MLALC should apply with the (former) Office of Environment and Heritage for a Care Agreement for those artefacts. If any unexpected finds were to be identified, it was recommended that work should stop immediately within the vicinity of the find, and a qualified archaeologist contacted.

Subsequent to this archaeological assessment, further subsurface archaeological investigations were undertaken for the project. The findings of the salvage excavation program are not yet available on the AHIMS database, a summary of the results can be found on the AHISM site card. This is provided in Section 3.2.

Darling Quarter (formerly Darling Walk) Darling Harbour

Comber Consultants undertook archaeological investigations at Darling Harbour, at the former Darling Walk. The development assessment was located along the eastern boundary of the current study area at Darling Quarter. The investigations included an archaeological survey, cultural heritage assessment and archaeological testing and salvage excavation works. Archaeological testing and salvage was undertaken with members of the MLALC. Aboriginal archaeological monitoring of historical archaeological investigations below the fill levels was undertaken in four of the nine archaeological Areas (Areas 5, 7, 8 and 9) excavated as part of the historical archaeological excavations. Aboriginal archaeological excavations were undertaken in Areas 5, 7, and 8. Test pits were hand excavated in 1x1 metre test pits in 5cm spits. An open area salvage excavation was undertaken at Area 5 after shell midden material was identified during testing. A total of 46 trenches were excavated within these three Areas; trenches were chosen based upon their location on or near the original foreshore where further excavation for basement works would take place (Comber Consultants 2012: 14).

Shell midden deposit containing ten Aboriginal artefacts was recovered from Area 5, no artefacts or evidence of Aboriginal occupation was recovered from Areas 7 and 8. A total of 145.942 kg of shell material was collected for analysis and consisted of 342 whole shells, 5122 values, 6754 hinges and 8224 fragments (Comber Consultants 2012). Shell midden material retrieved from the midden was predominantly *Anadara trapezia* (Sydney Cockle/Mud Ark), accounting for 90.57% of the minimum number of individuals (MNI) of analysed material. *Pyrazus ebeninus* (Hercules Club Shell/ Sydney Mud Whelk) accounted for 61.29% of whole shell collected with 209 shells. Species *A. trapezia*, *P. ebeninus* and *Saccostrea glomerata* (*Sydney Rock Oyster*) were the three most common species identified through the excavation program. The predominant raw material identified for the artefact assemblage was chert (n=8, 80%), with singular instances of quartz and silcrete also identified. Artefact types identified included four complete flakes and six flaked pieces. It was suggested that the lack of cores and cortex on artefacts and small size of the artefacts indicated that raw materials for artefact production were scarce, and likely traded for and that the artefacts were from a later reduction stage (Comber Consultants 2012: 39).

Interpretation from the evidence suggested the site was likely a midden redeposited by wave action and possibly disturbed by later land reclamation activities (Comber Consultants 2012:32). The report determined that 'the context relation of flaked artefacts, charcoal, blackened shell', 'the absent nature of juvenile shells of edible species' and the location of the midden on the landward side of the estuarine shoreline, all indicated that the site was a pre-contact midden. The presence of 'rounded quartz pebbles, limited water-worn shells and marine grit' provided further evidence that the midden had likely been re-deposited by estuarine tidal movements and later disturbed by Colonial reclamation activities (Comber Consultants 2012: 32). In summary, it was suggested that Aboriginal people would have been cooking and eating their food on the sandstone outcrops overlooking the harbour and that the raw material used for stone tools would have been traded from people west of the Harbour on the Cumberland Plain, where sources of chert are known to occur (Comber Consultants 2012).

Significance assessment determined that whilst the midden was heavily disturbed, it represented a rare surviving example of its site type in Sydney Harbour and provided archaeological and scientific information about Aboriginal people living along the foreshores. The site was wholly salvaged, with a recommendation that the interpretation of the cultural shell midden and the history of the Cadi People be included on the redevelopment of the site. No further archaeological assessment was recommended.

The Darling Walk Midden site is not located within the current study area; the site is located approximately 170 metres east of the study are at Darling Quarter. A description of the 'Darling Walk Midden' is also featured on the City of Sydney, Barani website (Irish and Goward n.d.).

Bays Market Precinct Rezoning

Aboriginal archaeological assessment was undertaken for the Bays Market Precinct as part of the wider Bays Precinct development (Artefact Heritage 2014; Artefact Heritage 2019a). The assessment included lands located within the current study area along the western foreshore of the Pyrmont Peninsula, Blackwattle Bay and Glebe. The Aboriginal heritage assessment included background research and review, archaeological survey, a process of Aboriginal community consultation, and archaeological significance and impact assessment. No registered Aboriginal archaeological sites were identified as part of the assessment. The majority of the assessment area was found to be heavily disturbed as a result of historic land use and continual use of the foreshore environment. Consultation with registered Aboriginal stakeholders highlighted the importance of identifying any areas where remnant natural soils may remain and have the potential to retain Aboriginal archaeology.

Archaeological survey was undertaken for the assessment area and was undertaken with Aboriginal community representatives. Survey was focussed on areas which had been identified through previous field inspection as having moderate archaeological potential (Artefact 2014). The majority of the assessment area contained large built structures, concrete and asphalt and compacted fill surfaces. Modification of the ground surface was evident across the surveyed area.

The location of two areas of moderate archaeological potential, The Bays Precinct PAD01 (AHIMS 45-6-3339) and The Bays Precinct PAD02 (AHIMS 45-6-3338) which had been identified as a result of the preliminary constraints assessment undertaken by Artefact in 2014, were revisited and confirmed to still be present. The site shape and extent of the PAD areas was reduced however, after a review of geotechnical investigations undertaken for the project identified additional fill and disturbance in some areas. No Aboriginal cultural values specific to the assessment area were provided by registered Aboriginal stakeholders. One stakeholder did however, note that the whole area was highly significant for Aboriginal people (Artefact Heritage 2019: 42).

Recommendations for the project included the preparation of an Aboriginal Heritage Interpretation Plan, to be developed in consultation with registered Aboriginal stakeholders. The Interpretation plan would allow for the interpretation of heritage values associated with the assessment area and for the registered PAD Jacksons Landing Shelter (AHIMS (45-6-2960) located just outside the assessment area. Despite the registered PAD not being located within the assessment area, it was suggested that any future planning and development of the Bays Market Precinct, consider installing view sheds between the registered PAD and Port Jackson. It was also recommended that the sensitivity of the site be protected.

The report also stated that further archaeological assessment would be required prior to any development impacts to the two registered PADs, The Bays Precinct PAD01 and The Bays Precinct PAD02. The remainder of the study area outside of the two registered PAD location was determined to contain low to nil potential for further Aboriginal sites, as the majority of the assessment area comprised reclaimed land. The remainder of the assessment area did not to require any further archaeological assessment. It was recommend that should any unexpected finds or Aboriginal human remains be identified, that the appropriate unexpected finds and human remains protocols be followed.

The new Sydney Fish Market Upgrade

An addendum to the Bays Market Precinct Rezoning CHAR and an additional due diligence assessment were undertaken for the new Sydney Fish Market project, north of Wentworth Park along the wharves and south of the Sydney Secondary College Blackwattle Bay Campus within parklands. These included the Stage 1 Early Works and Stage 2 Main Works Project (Artefact Heritage 2019b) and additional lands located at Lot 3 DP 1018801 (Artefact Heritage 2019c). The assessment area comprised lands located within Blackwattle Bay and Glebe. Both additional reports did not identify any Aboriginal archaeological sites and the assessment areas were found to display low-nil archaeological sensitivity based on extensive previous land use disturbance comprising land reclamation and swamp infill. No further Aboriginal archaeological assessment was recommended.

A heritage interpretation strategy document (City Plan Heritage 2020) was subsequently developed for the New Sydney Fish Markets project. The report incorporated research and information from the historic heritage, Heritage Impact Statement (HIS) prepared for the project, local studies, online resources and databases, site inspections and the Aboriginal Cultural Heritage Assessment and Maritime Archaeological Assessment reports. Several recommendations were made for heritage interpretation within the Blackwattle Bay and new Sydney Fish Markets development areas aimed around interpretation through fabric and design, Acknowledgement of Country, a 'History Walk', internal interpretation displays, play equipment and landscaping, public art and non-physical interpretation. The interpretation examples included Aboriginal cultural heritage components which could be integrated into the overall heritage interpretation strategy. The suggested interpretation examples were identified for their ability to explore the overall history, development and functions of the precinct, with specific information considered for the new Sydney Fish Market project area (City Plan Heritage 2020).

University of Technology, Sydney Concept Plan

Godden Mackay Logan Pty Ltd (GML) undertook Aboriginal and historical archaeological assessment of the University of Technology Sydney (UTS) Facilities Management Unit (GML 2009). The assessment was generally bound by Broadway to the south, Thomas Street to the north, Wattle Street to the west and Harris Street to the east. The assessment included a desktop review, community consultation and field survey of the assessment area undertaken with MLALC. The desktop assessment identified the potential for artefact scatters, isolated objects and PADs to occur. Shell midden sites, culturally modified trees, rock engravings and grinding grooves were assessed as being unlikely to occur within the assessment area due to a lack of suitable landform features required for these sites to occur.

Field survey was undertaken of the assessment area which sought to identify, locate and evaluate the nature of visible Aboriginal archaeological heritage (including objects and places) within the assessment area (GML 2009). An additional aim of the assessment was to identify any areas of PAD. Field survey identified a highly modified built environment and was largely restricted to areas which retained exposed ground surfaces such as large, grassed open spaces. No Aboriginal objects or places were identified during the archaeological field survey of the assessment area. The results of the survey confirmed that past land use practises and disturbance had removed original topsoils and that no remnant topsoils survived in the assessment area. Subsequently, significance assessment determined that the archaeological potential of the assessment area to contain Aboriginal objects or sites was considered to be very low and that the assessment area generally was of low cultural, scientific and archaeological significance. Despite this, the report suggests that it was possible for isolated Aboriginal artefacts to survive in the assessment area, albeit it in a disturbed context.

MLALC provided an additional heritage survey and assessment letter for the project, which concluded that there were no Aboriginal engravings or relics within the assessed area and that they had no objections to future development within the assessment area. They noted that should any Aboriginal cultural material be unearthed during development works, that all works should cease and MLALC and the relevant heritage authorities contacted (GML 2009: Appendix A). Recommendations of the assessment included ongoing consultation to be undertaken with MLALC and that a Heritage Impact Statement should be prepared for the assessment area as part of the Concept Application for Masterplan 2020 which should consider both the Aboriginal and non-Aboriginal archaeological resource (GLML 2009: 48).

UTS 14-28 Ultimo Road, Ultimo

A due diligence assessment report was prepared by GML in 2011 for proposed development of the land located at 14-28 Ultimo Road, Ultimo. The assessment included redevelopment of the former Dairy Farmers site. Whilst the preparation of a due diligence assessment was not addressed in the (former) Department of Planning's Director General's Requirements (DGRs) for the project, a due diligence assessment was undertaken in consistency with the (former) Department of Environment, Climate Change and Water (DECCW) Due Diligence guidelines. The assessment included a review of the AHIMS database, an assessment of landscape features within the assessment area, a review of strategies to avoid harming Aboriginal objects and a desktop assessment and visual inspection of the assessment area. Based upon the environmental and historical background of the assessment area, it was determined that the assessment area had low to moderate archaeological potential to contain Aboriginal objects from the late Holocene Period and that these sites would likely be stone artefacts and/or shell midden material (GML 2011: 15). Impact assessment determined that the depth of excavation required for construction would likely result in the removal and destruction of any Aboriginal site or objects contained therein (GML 2011: 17).

Visual inspection was undertaken for the assessment area; MLALC were invited to participate in the visual inspection. It was determined that visual assessment could not determine the likelihood of the presence or absence of archaeological material underneath the concreted surface across the area. Therefore, it was determined that the assessment area's archaeological potential must be informed by the desktop archaeological review and environmental context. The PAD area was subsequently registered on the AHIMS database as UTS PAD 1 14-28 Ultimo Rd Syd (AHIMS 45-6-2979). No Aboriginal archaeological sites were identified as a result of the visual inspection or the assessment.

MLALC recommendations for the management of the assessment area, included that they be present for the removal of the concrete slab (carpark surface) in order to assess the condition of the soil horizons below and whether any Aboriginal cultural material were present. MLALC stated that any extensive archaeological deposits which may have been present would be viewed as culturally significant by the land council. An Aboriginal Heritage Plan of Management was also recommended prior to any development of the area. GML recommendations concurred with the development of an Aboriginal Heritage Plan of Management which would include monitoring (by an Aboriginal archaeological consultant and/or MLALC) of historical excavations within the assessment area. It was recommended that if any Aboriginal objects were recovered during the course of the historical archaeology excavations then further Aboriginal archaeological assessment, including archaeological test excavation would be required.

Aboriginal archaeology and heritage reports have been produced for several larger scale major projects such as the Project Star, Ultimo Pyrmont Public School and Harbourside Shopping Centre projects (Curio Projects 2016; Urbis 2017; Urbis 2018a; Urbis 2018b). The results of these assessments generally concur that historic and contemporary land use practices have substantially impacted the likelihood of Aboriginal objects or archaeological deposit to remain within the suburbs of Pyrmont and Ultimo. The reports tend to focus upon determining whether residual soils or remnant natural soils remain with the assessment areas and whether these soils have the potential to retain Aboriginal archaeological deposit.

The majority of these reports did not identify any Aboriginal objects or areas of potential archaeological deposit. In areas where some potential *was* identified (for example, at the Ultimo Pyrmont Public School site) the assessment recommend that test excavation should be undertaken prior to development (Urbis 2017). While archaeological testing was a common recommendation of the reports outlined above, it is often unclear whether testing of particular areas subsequently took place, as archaeological results are not readily available. There is a lack of registered sites with Aboriginal objects on the AHIMS database: given that registration of archaeological sites is an obligation under the Act, this may indicate that no Aboriginal archaeological material was identified at these locations if testing did take place.

3.4 Aboriginal Ethnohistorical Overview

Aboriginal people living throughout Australia at the time of European invasion belonged to a multitude of groups that spoke approximately 250 distinct languages and several hundred dialects (Walsh 1993: 1). The information within the early British accounts regarding Aboriginal people was reliant upon limited communication. Watkin Tench, who published his account of the voyage of the First Fleet and the colony to December 1791, noted that his information on Aboriginal people was "made up of detached observations, taken at different times, and not from a regular series of knowledge of the customs and manners of a people with whom opportunities of communication are so scarce as to have been seldom obtained" (Tench 1793: 51). As such, historical accounts from this period provide vague and at times contradictory information (Attenbrow 2002: 22-28). Some of the material within these accounts contains views that are not considered appropriate today.

The current Pyrmont Peninsula study area appears to form part of the boundary between the Wangal (alternatively Won-gal) and Gadigal (alternatively Cadi-gal) clans of the coastal Darug. Early recordings by Governor Phillip describe the Wangal lands as, "the south side of the harbour, from the above-mentioned cove [present day Darling Harbour] to Rose Hill, which the natives call Parramatta" with the district known as Wann and the tribe as Wanngal (Philip 1790 [1892:309]). Gadigal lands are described as stretching from "the entrance of the harbour, along the south shore, to the cove adjoining the settlement", with the "district is called Cadi, and the tribe Cadigal; the women, Cadigalleon' (Philip 1790 [1892:309]).

The word 'Eora' has been referred to frequently throughout the central and eastern Sydney regions to describe Aboriginal clans in the area collectively. However, as Val Attenbrow suggests, the word 'Eora' (which contains several spellings) was given to Aboriginal groups by colonists as a word for 'people' and nowhere in the early ethnographic accounts is the word Eora given by Aboriginal people as the name of a tribe or place (Attenbrow 2002: 27). Use of the term 'Eora' has been met with mixed response from members of the contemporary Aboriginal community.

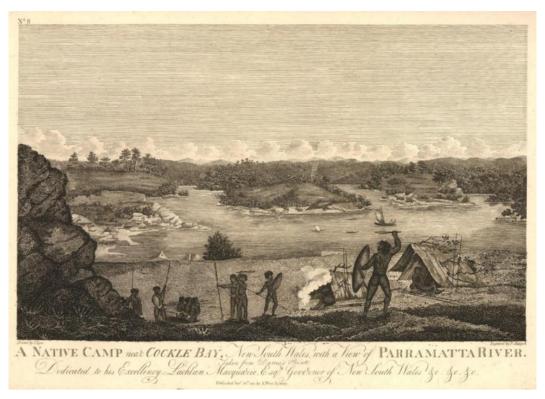


Plate 4. A Native Camp near Cockle Bay, New South Wales with a view of Parramatta River, taken from Dawes's Point [picture] / drawn by J. Eyre; engraved by P. Slaeger. Image source: State Library of NSW, File no. FL1790486.

The Darug, or Dharruk, language would have been spoken by the Wangal and Gadigal clans, as it was spoken across the Sydney region, from Appin in the south to the Hawkesbury River in the north, and west of the Georges River, Parramatta and Berowra Creek to the Blue Mountains, as well as along the Sydney coast between Port Jackson and Botany Bay (Attenbrow 2002:34). Whilst not definitely known, it is argued that a coastal dialect of the Darug language would have been spoken throughout the Sydney Peninsula (north of Botany Bay, south of Port Jackson and west to Parramatta); this would likely have included the country to the north of Port Jackson, and possibly as far as Botany Bay (Attenbrown 2002: 34).

Ethnohistorical sources suggest that despite differences in specific language, customs and material culture, the Wangal, Gadigal and other Darug 'clans' would have interacted for ceremonies, intermarriage, dispute resolution, trade and access to certain resources with other language groups of the region. Early accounts report the clans of the Port Jackson area as coming together for social or religious events or to take advantage of abundant food resources. For example, a whale stranding in Manly Cove in September 1790 attracted at least two hundred Aboriginal people including members of the Wangal, Cadigal and Broken Bay clans (Tench 1793).

During the first years of the colony, the British attempted to engage with Aboriginal people living in the vicinity of the colony "through kindness and gifts" (Phillip 1914: 1:52) in order to entice some to live within the colony while at the same time deterring any resistance to their occupation and actions by demonstrating the superiority of their firearms, which the Aboriginal people called geerubber or fire sticks (Karskens 2016: 43-44). While the British defined the Aboriginal people living in New South Wales as British subjects that were entitled to the protection of British Law, in practice, protection under British Law was limited and did not extend to land ownership.

In early 1789, Governor Phillip ordered the capture and detaining of some Aboriginal people by force. The British initially kidnaped Arabanoo, an Aboriginal man who died of smallpox in April 1789 and then Coleby and Woollarwarree Bennalong (a member of the Wangal clan) whom subsequently escaped their captivity. Several months after Bennalong's escape, Phillip went to Manly Cove where Bennalong had been seen and on approaching him, was speared in the shoulder by an Aboriginal man called Willemering. It has been suggested that the spearing of Phillip, which has been interpreted as an act of 'payback' in Aboriginal Law, and Phillip's decision not to retaliate but to instead negotiate, resulted in the change in relations with Bennelong, his family and friends who moved into the colony (Karskens 2016: 48).

A smallpox outbreak between March and May 1789 caused widespread fatalities amongst the Aboriginal population of the Sydney region with Governor Phillip estimating that "one half of those who inhabit this part of the country died" (Phillip 1790b: 159). The outbreak disproportionality affected the Aboriginal community and later accounts of Aboriginal people who bore smallpox scars from the outbreak indicate that the disease spread over a large area that possibly included the Wellington Valley in the west and Jervis Bay and Port Phillip in the south (Dowling 1997: 63). The reason for the outbreak of smallpox in 1789 is unclear due to the limited information in contemporary accounts; however, the virus was believed to have been brought to Australia by ship passengers (Dowling 1997: 52). The smallpox outbreak of 1789 drastically altered the size and structure of the Aboriginal population living on the Cumberland Plain and several Aboriginal children orphaned by the disease began to live in the British settlement after an outbreak.

Prior to European invasion, the harbour foreshore area was rich in natural resources and was a natural focal point for Aboriginal occupation in the landscape. Early recordings by Watkin Tench noted that "fishing, indeed, seems to engross nearly the whole of their time, probably from its forming the chief part of a subsistence" (cited in Gondwana 2006:62). Philip noted in his description of the coastal Aboriginal people, that their "huts are generally surrounded by oyster and muscle [sic] shell". Along with fish and shellfish, marine resources would have included a wide range of Crustacea such as crabs and crayfish, as well as occasionally (and seasonally), larger marine mammals such as seals and whales (Attenbrow 2002: 63).



Plate 5. Aborigines fishing, cooking and eating in canoes. Watercolour by unknown artist, often attributed to Phillip Gidley King (the elder); undated, circa 1788-92. Image Source: Mitchell Library, State Library of NSW.



Ethnographic sources suggest fishing around the shores of Port Jackson was primarily a women's activity, who used hook and lines from canoes or less commonly from rock platforms. Fishing spears were more commonly used by men, who fished in shallow water. Canoes commonly held campfires so that fish could be prepared as soon as caught. Shellfish were also widely exploited, collected from the rocky parts of the coastline, mudflats, sandy beaches and from deeper water by diving. The Port Jackson Harbour was described in February 1788 as having a 'great quantity of shellfish in the Coves, that have mudflats at the bottom, oysters very large' (Bradley 1786-92 [1969: 79-80]).



Plate 6. Fish hooks of New South Wales. J White 1790. Image source: Australian Museum Research Library (Attenbrow 2010: Figure 9)



Plate 7. New Holland – Baskets, Weapons and Fishing Gear. CA Lesueur, J Milbert & Dien. 1824. Image source: Australian Museum Research Library (Attenbrow 2010: Figure 6).

Terrestrial resources were also important although are often overshadowed by a strong bias towards reporting of Aboriginal fish and shellfish use. Kangaroos, birds and small mammals are likely to have contributed to the protein component of the diet, with macropod, glider and possum remains all recorded in coastal shell midden sites. Early European observations mention Aboriginal people living around Port Jackson setting grass fires in order to catch small animals (Attenbrow 2002:80).

As well as food and medicine, plant resources also provided bark, resins, fibres and fronds for toolmaking, canoe and shelter construction, the weaving of nets, traps and carry bags and wood for shields, spear-throwers, digging sticks, dished and containers. Honey from native bees was also collected. Shell material was also used for implements and tools including spear barbs, scrapers, to sharpen spear points, and to carve designs into wooden implements as well as being traded with hinterland Darug clans (and others) (Attenbrow 2002:92). Within the wider region, traces of this Aboriginal landscape use tend to survive as stone artefacts, shell midden deposits and shelter sites with art and/or deposit in the Hawkesbury Sandstone.

Tinker's Well

An early twentieth century account of the use of natural freshwater spring in Pyrmont by Aboriginal people highlights the continual use of the Pyrmont Peninsula landscape by Aboriginal people even after European arrival. A description of "Tinker's Well" has been published by Paul Irish and Tamika Goward on the City of Sydney's Barani website.

An account from a local newspaper describes the location of the well as 'the south-western side of the Pyrmont Hill, which faces towards Glebe Island' (Evening News, 1912: 11). The well was described as trickling spring water from a crack in apparent solid sandstone outcrop; were the water pooled into a bowl on the sandstone floor of a rockshelter. Tinker's well was well known by locals and had been utilised by local Pyrmont residents at the time as a source of clean, fresh water. The article also suggests that according to local sources, the area around the well had been utilised as an Aboriginal camping ground in the past. The writer states that 'numerous mussel shell' had been found in the vicinity of the spring and that prior to quarrying works to deepen the bowl, it appeared that a bowl in the sandstone had been carved out "with native tools" (Evening News, 1912: 11). A description of Tinker's well can be found on the City of Sydney's 'Barani' website and details the location of well, despite it having been destroyed by subsequent residential development. The website states that whilst the shelter containing Tinker's well has since been destroyed, that 'water continues to flow down sandstone outcrops behind a modern apartment building' within the vicinity of the original spring (Irish and Goward n.d.).

Blackwattle Creek

A description of the Blackwattle Creek watercourse has been published by Paul Irish and Tamika Goward on the City of Sydney's Barani Website as an Aboriginal heritage feature. The summary recognises that the creek was a source of fresh water for Sydney's Aboriginal People and likely would have been heavily relied upon as an environmental resource.

The entry states that despite development, archaeological traces of an Aboriginal campsite were originally identified through archaeological excavations undertaken of a small patch of natural soil located between Mountain Street and Blackwattle Lane in the early 2000s (Irish and Goward n.d.). Fourteen stone artefacts were retrieved from the deposit and represented a variety of raw materials. It was determined that the 'artefacts were probably discarded by Aboriginal people over time as waste material during stone tool manufacture or during activities such as hunting, butchering or the processing of plant foods' and that the site most likely represents 'occasional visits by Aboriginal people over time, rather than intense occupation', due to its location on poorly drained and low-lying swampy ground (Irish and Goward n. d.)

Since the Aboriginal site was identified, further evidence of Aboriginal use of the Blackwattle Creek has emerged at the University of Sydney campus at Camperdown and underneath the corner of Mountain and Small Streets in Ultimo (Irish and Goward n.d.). AHIMS sites 45-6-2629 and AHIMS 45-6-2663 located to the west of the study area at Wattle Street, forms a part of this Blackwattle Creek archaeological resource. The listing for Blackwattle Creek on the City of Sydney, Barani website places the Aboriginal heritage feature approximately 100 metres west of Wattle Street on Smail Line, outside of the current study area. The survival of further archaeological deposits associated with the Blackwattle Creek watercourse would be highly dependent on whether additional areas of remnant natural soils are present within the local area.

4 Synthesis of background information and desktop analysis

Previous archaeological investigations, historical land use background and an analysis of the environmental context of an area all provide data that assists in formulating predictions of expected site types and distribution within the current study area. Previous investigations undertaken throughout the locality have identified that the distribution of archaeological material around the harbour foreshores and Pyrmont Peninsula is linked to a combination of environmental factors and land use practices. The vast majority of the study area has been subject to extensive disturbance through utilisation of the landscape for historic and contemporary industrial, infrastructure, residential, public recreation, commercial and mixed use land use purposes. The survivability of the Aboriginal archaeological deposit is variable.

Culturally, the Pyrmont Peninsula and its surrounds contain demonstrated importance and value to the contemporary Aboriginal community. Through previous precinct planning and development projects undertaken in the study area, many Aboriginal community members expressed that they hold cultural knowledge of the area. Additionally, several stakeholders indicated that they held both spiritual and personal, familial connections to the study area. Generally, Aboriginal community have expressed that they hold a responsibility to look after Country and all that this encompasses, the land and waterways, as well as heritage sites. The importance of the interconnectivity of sites and the physical landscape has also been highlighted. Any archaeological sites within the Pyrmont Peninsula show a direct connection between past and present Aboriginal people and the importance of the cultural landscape.

Preservation of archaeological deposit in open contexts (i.e. shell middens, artefact scatters, isolated finds) and closed contexts (i.e. rockshelter sites) is variable in the region and is strongly linked to land use history and the level of disturbance to the landforms in which they occur. Despite the extensive disturbance and built nature of the environment, previous archaeological investigations have identified that Aboriginal archaeological sites can survive in built environments as subsurface archaeological deposit, if the disturbance of remnant natural soils is relatively low. Desktop assessment has identified a total of six registered Aboriginal archaeological sites within the study area, comprising five PAD areas and one shell midden with artefact.

Whilst swamps and lower-lying areas associated with Cockle Bay and Blackwattle Bay would have been rich in economic resources, they are unlikely to have been suitable for repeated or long-term habitation due to frequent flooding and marshy ground. Aboriginal occupation of the region is more commonly associated with rockshelters, which occur in suitable outcrops of the Hawkesbury Sandstone underlying the ridge lines and headlands. Rockshelters were used as campsites, for habitation, and often contained charcoal and pigment art. Evidence of camping includes hearths, stone tools and middens. Any shelters and overhangs in these areas are likely to have been subject to historic quarrying activities, particularly around the northern and western margins of the headland. Whilst sandstone was also known to be used as a substrate for engravings and art sites, this occurs primarily on suitable flat outcrops. Suitable sandstone outcrops used for grinding and smoothing stone axes are not known to occur in the study area.

Environmental contexts that would have been more favourable to preservation of open context sites, such as flat ridge tops with more stable residual soil landscapes, were usually the focus for initial European land use and have a longer history of manmade disturbance. Similarly, shell midden sites once prolific around the foreshores, are likely to have been disturbed and/or removed by reclamation works. Any carved or scarred trees that were present in the locality have long been removed by vegetation clearance.

The primary archaeological material that could be expected to remain within the landscape comprises stone tools. Whilst unlikely, isolated artefacts may be present in areas of lower disturbance. Artefacts identified in archaeological deposits in the local area are quartz, indurated mudstone/tuff, chert with lesser instances of silcrete and petrified wood. Quartz is available from pebble clasts in the Hawkesbury sandstone while other raw materials would have been traded or retrieved from known regional sources.

A wide range of food resources would have been available to Aboriginal people from a variety of environments. The study area is located along the harbour foreshores, which offer ready access to the marine resources of Port Jackson, previously existing estuarine and swamp environments associated with Blackwattle Creek and Cockle Creek, and good access to the more elevated ridges and plateaux with their woodland and forest habitats. The Pyrmont headland also offers good views over the surrounding country and the harbour.

Based on the regional and local context outlined in the preceding sections, several predictions may be made about the nature of the archaeology that may be expected in the study area.

- Environmental assessment of the Pyrmont Peninsula has identified that Aboriginal archaeological sites in the locality are unlikely to be older than 6,000-6,500 years (Holocene occupation)
- Midden site types may occur and contain shell material and/or artefacts. Any remaining midden material is
 likely buried in remnant natural soils remaining along the original shoreline. The integrity of midden sites will
 depend on soil movement/erosion and the amount of disturbance.



- Open artefact scatters and/or isolated finds are also possible however their occurrence within the open landscape context of the study area is dependent on the level of landform integrity. Archaeological deposit in the region is more likely to have been preserved in closed context rockshelter sites.
- Rockshelter sites represent a common site type with the region; however these are unlikely to occur within
 the study area given the history of quarrying, infrastructure development and construction of the built
 environment.
- Suitable flat sandstone outcrops used for grinding grooves and engraving sites are rare within the study area. These sites are unlikely to be present.
- Clearance of original vegetation lessens the likelihood of identifying culturally modified trees. It is unlikely that old growth trees displaying scars of Aboriginal origin remain within the study area.
- Archaeological sites and areas of PAD are more likely to be identified in subsurface deposit in areas where
 remnant natural soils remain below introduced fill material on landforms which are considered to be
 archaeologically sensitive. Surface artefact scatters and isolated finds are highly unlikely to remain within the
 study area.
- Other Aboriginal cultural heritage features (cultural landscapes or sites of social/cultural significance) may also occur and are not necessarily dependent on or related to Aboriginal archaeological heritage.

5 Visual Inspection

Visual inspection of the study area aimed to identify Aboriginal objects or sites and assess the potential of the archaeologically sensitive landforms identified within the study area to contain Aboriginal objects. An additional aim of the visual inspection was to relocate and assess previously registered Aboriginal archaeological sites within the study area. The study area was inspected and assessed by KNC in May 2020.

Northern portion of Study Area

Inspection commenced in the northern portion of the study area at Pyrmont and encompassed the northwest and north facing foreshores and areas of commercial and residential landuse. The northern portion of the Pyrmont Peninsula is charactered by an urban built environment.

This part of the study area had been heavily modified and disturbed by past road, rail and pedestrian footpath construction, drainage and utilities infrastructure. The foreshore area had been subject to reclamation works, with significant landscaping works undertaken along the foreshore and within public open spaces. Several areas showed evidence of former quarrying and cutting activities. For example, significant alteration of the sandstone bedrock can be seen at the western end of Bowman Street, below Distillery Drive. Ground surface visibility was zero, due to a lack of natural soils present within the study area. No new Aboriginal archaeological sites or Aboriginal objects were identified within the northern portion of the study area.

The site locations for previously registered AHIMS sites Jacksons Landing Shelter (AHIMS 45-6-2960), The Bays Precinct PAD 01 (45-6-3338) and The Bays Precinct PAD 02 (AHIMS 45-6-3339) were revisited and assessed. Additional areas displaying less visible surface disturbance were targeted and carefully inspected for any evidence of Aboriginal archaeological sites or areas of archaeological sensitivity. Inspection of the northern portion of the study area concluded that areas of archaeological sensitivity would be present where remnant natural deposits have been buried below modern land use development.

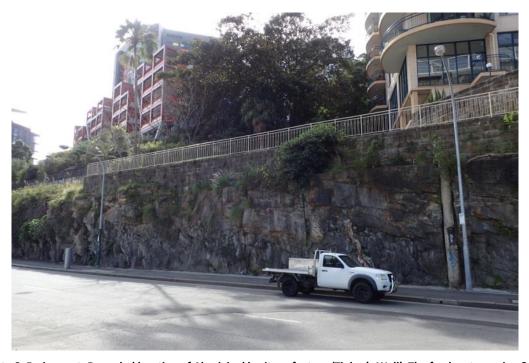


Plate 8. Facing east. Recorded location of Aboriginal heritage feature 'Tinker's Well'. The freshwater spring & its overhang would have been in this approximate area. Note: sandstone rock outcrop has evidently been cut and likely quarried.

The approximate location of previously recorded Aboriginal heritage feature, Tinker's Well was also revisited. The recorded location of the well is within close proximity to site Jackson Landing Shelter. It's likely that this area was defined by numerous rocky outcrops and overhangs. As the recording of the site suggests, this area has been intensively cut and quarried with a large cut in the natural sandstone material present along the intersection of Bank and Bowman Streets.



Plate 9. View northwest looking across to The Bays Precinct Pad02 (AHIMS 45-6-3338) from elevated location at end of Distillery Drive.



Plate 10. Northern part of The Bays Precinct PAD02 (AHIMS 45-6-3338). The area of vegetation consists of planted trees and does not contain native vegetation.

The site location for previously registered PAD, The Bays Precinct PAD02 (45-6-3338) was also revisited. The PAD area encompassed a small, enclosed block with high brick walls (Plate 9). The PAD was located on the foreshore, under the south side of the Anzac Bridge. The site area was largely inaccessible, and visible only from pedestrian walkway above, from the west end of Distillery Road. A small parcel of land at the north western end of the triangle block contained some vegetation; however this mostly contained planted trees (Plate 10). Visual inspection confirmed that the site recording is in the correct location.



Plate 11. View of registered AHIMS site Jackson Landing Shelter (AHIMS 45-5-2960). Site has been heavily disturbed with construction of retaining wall and metal staircase cut into sandstone bedrock



Plate 12. View of overhang cited on registered AHIMS site Jackson Landing Shelter (AHIMS 45-5-2960). The floor contained geofabric material and additional sandstone rubble and some loose grey soil

Site Jacksons Landing Shelter (AHISM 45-6-2960) was relocated and assessed. The previously recorded overhang was accessed via stairs off the western end of Distillery Drive. Inspection of the registered site identified the presence of concrete and metal stairs constructed immediately to the south of the overhang (Plates 11 & 12). The floor of the overhang, which had been associated with two areas of potential archaeological deposit was filled with woodchip, sandstone rubble, loose grey soil and geofabric (likely from when the stairs were constructed). Visual inspection confirmed that the site recording is in the correct location.

The remaining undeveloped portion of rock outcrop located above the sandstone overhang which contains Jacksons Landing Shelter was also carefully inspected for any evidence of Aboriginal engravings (Plate 13). However, no evidence of Aboriginal engravings was identified across the surface.

The Bays Precinct PAD01 (AHIMS 45-6-3339) was also revisited. The PAD area was defined by the carpark area which was completely covered with bitumen surfaces and contained zero visibility. The PAD area slope declined to the west towards Blackwattle Bay. The inspection confirmed that the area contained potential for remnant natural soils which may contain Aboriginal archaeological deposit. Visual inspection confirmed that the site recording is in the correct location.



Plate 13. View of remaining undeveloped sandstone outcrop above registered AHIMS site Jackson Landing Shelter (AHIMS 45-6-2960). Area was closely inspected for any engravings; none were identified.



Plate 14. View across northern foreshore at Pyrmont. The foreshore has been built through reclaimed land and is heavily modified.

Central portion of Study Area

The central portion of the study area encompassed the boundary between the suburbs of Pyrmont and Ultimo. The area was largely defined by residential housing, mixed use development and commercial premises and had been extensively disturbed by historic and contemporary development and construction works. Limited areas of vegetation were present, with the majority of vegetation consisting of manicured and landscapes green open spaces, such as Wentworth Park. Some small heavily landscaped parks were present; however these do not retain remnant native vegetation. Visibility was very low with concrete, bitumen and built surfaces covering the vast majority of the study area. No new Aboriginal archaeological sites or Aboriginal objects were identified as a result of visual inspection. The visual inspection of the central portion of the study area considered that any remaining areas of Aboriginal archaeological potential would be present where remnant natural deposits occur below modern landuse.

The central portion of the study area was situated on the crest of a broad ridgeline which runs from north to south across the study area and slopes towards Blackwattle and Cockle Bay. Sites within this portion of the study area comprise a shell midden site with artefact, Darling Shell Midden (AHIMS 45-6-3217) and a PAD area (Ultimo PAD 1) recorded along what would have been the original foreshore prior to European occupation.



Plate 15. Correct location for registered AHIMS site Ultimo PAD 1. The area has likely been extensively excavated during construction of the lan Thorpe Aquatic Centre.



Plate 16. Correct location for registered AHIMS site Ultimo PAD 1. The aquatic centre features an underground carpark which would likely have removed any remnant natural soils at this location

Ultimo PAD 1 (AHIMS 45-6-2652) was also revisited during the visual inspection. Desktop assessment had identified that the site recording details for this site were likely be incorrect. Visual inspection confirmed that the PAD area should be located on the corner of Harris Street and William Henry Street. Since the original site recording, the Ian Thorpe Aquatic Centre has been constructed over the PAD area. The construction of the aquatic centre would have likely involved cut and fill activities which would have removed any remnant natural soils. It is considered unlikely that any archaeological deposit would survive at this location.



Plate 17. Location of registered AHIMS site Darling Central Midden (AHIMS 45-6-3217). The site has been partially destroyed by construction works related to the International Convention Centre Complex. However, a portion of the site has been buried and protected beneath the complex.



Plate 18. Example of open public space along Mary Ann Street, Ultimo which was a focus of visual inspection. The area has likely been subject to ground surface modification. No remnant native vegetation remains and the landscaping included planted shrubs and trees.

The site location for registered AHIMS site Darling Shell Midden (AHIMS 45-6-3217) was revisited. The site had been completely covered by the recent development and construction of the new International Convention Centre. The site card details determine that whilst a portion of the midden was destroyed by the proposed works, a portion of the shell midden remained buried and intact underneath the development. Visual inspection confirmed that the site recording is in the correct location.

Southern portion of the study area

Inspection continued within the southern section of the study area and included the remainder of the study area. This area contained residential, light industrial and commercial areas and included recent development associated with the University of Technology, Sydney. A portion of the study area had been heavily disturbed by past road and pedestrian footpath construction, drainage and utilities infrastructure. Drains, manhole covers as well as concrete and bitumen surfaces were present. Ground surface visibility was very low to zero and restricted to revegetated small parks and median strips; however these areas appeared to have been built up using introduced soils and mulch materials. No new Aboriginal objects or areas of potential archaeological deposit were identified within the southern within the study area.

Three Aboriginal archaeological sites had previously been recorded within this part of the study area. Visual inspection confirmed that two of these sites, Wattle Street PAD 1 (AHIMS 45-6-2666) and Mountain Street Ultimo (AHIMS 45-6-2663) had been incorrectly recorded on the AHIMS database. Visual inspection confirmed that both of these sites are located outside of the current study area. Visual inspection of the southern part of the study area at Ultimo confirmed that any remnant areas of natural soils along the crests and slopes along the original ridgeline landform would be considered to display some level of archaeological potential depending on the level of ground surface disturbance.



Plate 19. Registered location of site UTS PAD 1 14-28 Ultimo Rd Sydney (AHIMS 45-6-2979 showing the construction of the UTS Business School.



Plate 20. Example of carpark along Harris Street which may retain remnant natural soils if there have been limited impacts to the subsurface deposits

The current coordinate location for AHIMS site Wattle Street PAD 1 (AHIMS 45-6-2666) was revisited and confirmed that the site was located in the wrong location. Visual inspection confirmed that the site should be located at 17-19 Macarthur Street and on the western side of Wattle Street. The corrected location of the site currently shows an apartment block ('Ultimo View') built on level ground.

Registered site Mountain Street Ultimo (AHIMS 45-6-2663) was also revisited and assessed. Visual inspection of the current coordinate location confirmed that the site location was incorrect and that the site should be located at 22-36 Mountain Street, Ultimo. A commercial building has been constructed atop the registered PAD area. Visual inspection and assessment of registered AAHIMS site UTS PAD 1 14-28 Ultimo Rd Syd (AHIMS 45-6-2979) determined that the UTS Business School had been constructed at the PAD location. The building also features an underground carpark, reducing the likelihood of remnant natural soils in this area.

Results of Visual Inspection

No new Aboriginal archaeological sites or Aboriginal objects were recorded during visual inspection of the study area. The overall study area was found to be highly disturbed as a result of manmade disturbance associated with urbanisation of the local area. Visual inspection confirmed that six registered AHIMS sites are located within the study area. These consist of five registered PAD areas and one shell midden with artefact. The inspection also revisited the location of one Aboriginal heritage feature, Tinker's Well and confirmed that the site had been destroyed by development.

The visual inspection also confirmed the findings of the desktop assessment and analysis in relation to the potential for subsurface archaeological deposits. Areas present across the original landform which have been subject to limited ground surface modification, may contain remnant natural soils which have the potential to retain subsurface Aboriginal archaeological deposit. As a result of this, the entirety of the original landform of the Pyrmont Peninsula has been identified as an area of archaeological sensitivity. The results of the visual inspection including registered Aboriginal archaeological sites, Aboriginal heritage features and the area of archaeological sensitivity are shown on Figure 11.

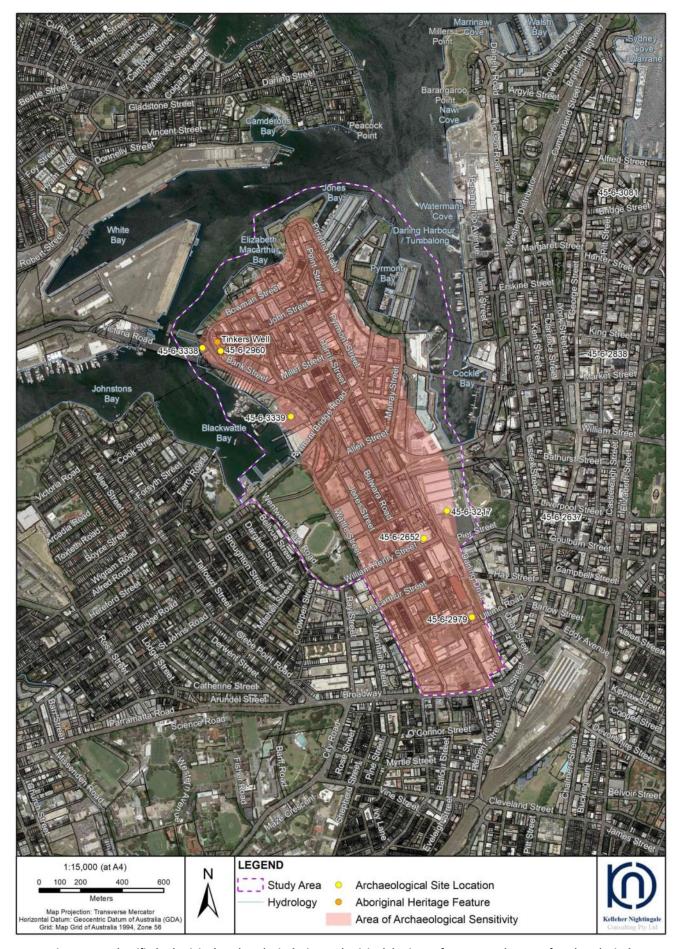


Figure 11. Identified Aboriginal archaeological sites, Aboriginal heritage features and area of archaeological sensitivity (associated with the original landform) located in the study area

6 Establishing an Aboriginal heritage framework

The long struggle for recognition, self-determination and acknowledgement forms part of the Aboriginal cultural heritage story and lived experience of contemporary Aboriginal people. An understanding of this, is fundamental to establishing an Aboriginal heritage framework for the Pyrmont Peninsula.

In Australia, the claim of sovereignty and subsequent colonisation of Australia was founded and implemented on the erroneous belief in the superiority of the British civilisation which continues to have ramifications to the present day (Doukakis 2006). New South Wales has the largest Aboriginal population in Australia and the Aboriginal people of New South Wales "continue to fight to protect cultural heritage and maintain cultural practices" (Hunt and Ellsmore 2016: 78). As previous archaeological investigations and cultural assessments have identified, members of the contemporary Aboriginal community continue to experience connection with the Pyrmont Peninsula study area through social, cultural and family associations.

Several local council and state government planning initiatives and engagement strategies have sought in recent years to increase the visibility of Aboriginal heritage and culture within existing and future planning and development policies in order to preserve and protect the fabric and identity of Aboriginal Sydney. Fundamental shifts towards an understanding of the importance and relevance of Aboriginal culture and heritage in planning principles and strategies can be seen in the Greater Sydney Commission's (GSC) *Greater Sydney Regional Plan: A Metropolis of Three Cities – connecting People* (2018a). This report acknowledges the incontrovertible links between Aboriginal cultural heritage, place-identity and landscape. As stated (GSC 2018a: 2):

Meeting ancient Aboriginal knowledge and relationship with the Greater Sydney landscape, together with the contemporary land use and planning aims of 'A Metropolis of Three Cities' will ignite a positive shared future for all of Greater Sydney's people and its stunning environment.

Furthermore, the report identified that a shared vision would draw upon both 'spirit and nature' to guide 'respect, reconciliation and recognition, bringing the depth of Aboriginal culture and custodianship to the fore in the future planning of Greater Sydney' (GSC 2018a: 2). Engagement initiatives related to Aboriginal cultural heritage from *A Metropolis of Three Cities* (GSC 2018a: 56) generally include:

- Effective engagement with Aboriginal communities in identifying, conserving and enhancing environmental heritage founded on a dialogue of self-determination, economic participation and mutual respect.
- The identification, enhancement and protection of views of scenic and cultural landscapes from the public realm – acknowledging the importance of views and vistas of ridgelines and waterways.
- The development and improvement of a new legal framework for the protection, management and celebration of Aboriginal cultural heritage that will include an Aboriginal Cultural Heritage Act.

The Greater Sydney 2056 Eastern City District Plan- connecting communities report also reiterates these core principles, with equal emphasis placed on the requirement for a place-based planning approach which builds upon the District's artistic, heritage, cultural, volunteering and creative strengths. The Eastern City District Plan highlights the importance of understanding the significance and community values of heritage early in the place-based planning process, suggesting that that this provides 'an opportunity to address cumulative impacts on heritage using a strategic approach' (GSCB 2018b: 51).

The report determines that place-based planning strategies should strive towards strengthening economic self-determination of Aboriginal communities (particularly recreation and tourism opportunities) through consultation with Local Aboriginal Land Councils and improving public access and connection to heritage through 'innovative interpretation' (GSC 2018b: 51). Through preserving scenic and cultural landscapes, we are preserving links to Aboriginal cultural heritage.

The City of Sydney council have incorporated Aboriginal cultural heritage values into several key strategic planning policies in an effort to give prominence to the Aboriginal identity of the City of Sydney local government area. The City of Sydney Plan 2036 (City of Sydney 2019), Sustainable Sydney 2030 Strategy (City of Sydney 2017) and the Eora Economy Development Plan (City of Sydney 2016) together provide a structural approach to maintaining connections to Sydney's Aboriginal past, as well as the living cultures of Aboriginal and Torres Strait Islander communities. This structural approach represents the 'Eora Journey', and is being achieved through:

- Recognition and reconciliation across all City of Sydney strategic planning policies and community
 engagement projects
- Design of the built environment through strategic and sustainable planning policies and urban design regulations



- Economic opportunities and prosperity detailed in the Eora Economy Development Plan
- Public art projects and cultural events; such as the Barani/Barrabagu (Yesterday/Tomorrow) and Eora
 Journey Harbour Walk Storytelling Report
- The construction of a local Aboriginal knowledge and culture centre

The overarching City of Sydney council approach to Aboriginal cultural heritage is one based upon the knowledge that 'the political, economic, social and cultural rights of the Aboriginal and Torres Strait Islander communities must be embedded in the city's economic, social, environmental and cultural change' (City of Sydney 2017: 89)

More specific community engagement projects such as the *Eora Journey, Harbour Walk* by independent curator, writer, educator and Wiradjuri woman, Emily McDaniel demonstrate the important role that utilising public open spaces such as the those present along the Sydney Harbour foreshore, can play in creating 'better places that acknowledge Aboriginal cultural heritage and its contemporary living expressions' (McDaniel 2019).

The foundational *Eora Journey Harbour Walk Storytelling Report* outlines a framework for one of several City of Sydney community engagement and public art initiatives, which have been developed as a result of the *Sustainable Sydney 2030 Plan*. The project is aligned with the aforementioned 'Eora Journey' strategic approach adopted by council. The framework for the project envisages the *Eora Journey, Harbour Walk* as 'a series of curated stories that are connected alongside the Sydney Harbour foreshore over 9km from the Australian National Maritime Museum in Tumbalong (Darling Harbour) to the Aboriginal community in Woolloomooloo Bay' (McDaniel 2012: 6). The project seeks to deliver increased recognition of Aboriginal stories and histories associated with Sydney Harbour and foreshore areas.

The *Eora Journey, Harbour Walk* would include the development and installation of multiple integrated cultural projects, including: the creation and naming of the "Harbour Walk" (one which embodies the Aboriginal significance of the Harbour and the foreshore), the framing of 'siteline relationships' across the foreshore environment, audio and/or text installations of 'hidden histories' along the foreshore walk, an artist led and partnered environmental project highlighting the importance of Badu (Water) and the commissioning and curation of several major public artworks at sites Pirrama (Pyrmont), The Hungry Mile, Ta-ra (Dawes Point), The Boatshed and Woolloomooloo. Major public artworks would contribute to a cohesive and collaborative understanding of the Aboriginal cultural landscape of Sydney Harbour. Specific initiatives included in the *Eora Journey, Harbour Walk* framework related to the current Pyrmont Peninsula study area include:

- The installation of a major public artwork at Pirrama (Pyrmont) adjacent to the existing Australian National Maritime Museum which would recognise the connection between Aboriginal people and the harbour with specific acknowledgement of the Eora Fisherwomen and notable Aboriginal figure, Bungaree.
- Acknowledgement of the former natural environment of Darling Harbour through physical demarcation of
 the original shoreline to demonstrate the drastic changes to the natural environment since colonisation as
 stated, 'this mapping would also be an invitation to the public to reimagine the area and the memories
 embedded within it' (McDaniel 2012:38).

As the report suggests, the project has the opportunity to illustrate the 'inextricable connectedness, between stories, histories, memories and people' within the Sydney harbour foreshore landscape (McDaniel 2012: 28). Recommendations of the report proposed that the project should be developed in unison with relevant planning and development activities undertaken along the harbour foreshore areas, with a development framework adopted which considers ways in which 'developments can engage with the objectives of the Harbour Walk project and its partners' (McDaniel 2012: 28). It was suggested that this could be achieved through future harbour foreshore developments supporting the initiatives of the *Eora Journey, Harbour Walk* framework, including consideration of 'Cultural Protocol Plans' for new development. As stated, Cultural Protocol Plans (McDaniel 2019:57):

Provide a checklist for organisations such as the City of Sydney to refer to when engaging Aboriginal artists and other professionals and for managing the use of Aboriginal cultural knowledge and cultural intellectual property rights. Beyond the creation of public art plans and heritage interpretation, developments that prepare these plans could consider the broader opportunities to engage with Aboriginal and Torres Strait Islander communities through the creation of jobs and new business opportunities.

The *Eora Journey, Harbour Walk* is one of several community engagement frameworks being pursued by the City of Sydney council. Projects like the *Eora Journey, Harbour Walk* deliver an opportunity to reintroduce currently invisible Aboriginal identities and cultural landscapes into the character of Sydney Harbour and foreshore environment. Extension of this project to include the wider Pyrmont Peninsula may be considered as part of a future Place Strategy to integrate with the existing framework for Aboriginal heritage being undertaken by local council.

The Government Architect NSW (GANSW) provides strategic design leadership in architecture, urban design and landscape architecture. The GANSW *Designing with Country* project has been developed in collaboration with recognised Aboriginal knowledge holders and professionals in order to provide a practical way in which Government, local communities, designers and developers can facilitate sustainable management of built and cultural heritage (including Aboriginal cultural heritage) in accordance with the requirements of the *NSW Environmental Planning and Assessment Act 1979 (EP&A Act)*.

One of the goals of the project is to develop and provide a set of Cultural Design Principles and an implementation framework which will be intended as a guide for relevant stakeholders when undertaking built design projects that impact Aboriginal communities as well as their culture and heritage. The *Designing with Country* discussion paper (GANSW 2020) provides a summary of recent forum discussions and research undertaken by GANSW to develop these cultural design principles and a subsequent implementation framework. The discussion paper includes several case studies which demonstrate how 'Designing with Country' can not only lead to overall better innovative and integrated design outcomes, but provide a unique opportunity to share knowledge between Aboriginal and non-Aboriginal communities about Aboriginal places and places of shared cultural and heritage significance (GANSW 2020).

The *Designing with Country* discussion paper as well as the forthcoming set of Cultural Design Principles and implementation framework should be considered and utilised as a guide for future planning projects undertaken within the Pyrmont Peninsula study area.

Recent neighbouring precinct planning projects have also moved towards more effective engagement with contemporary Aboriginal communities. An Aboriginal cultural advice and community engagement strategy report was recently undertaken for the neighbouring Blackwattle Bay Precinct by Murawin Consulting (2020). The report comprised a literature review of previous Indigenous community engagement strategies undertaken in planning and related contexts and resulted in the formation of an Aboriginal Stakeholder Engagement Plan. The findings of literature review on engagement in a design context revealed the requirement for several cultural protocols centred around the following key principles: Indigenous led design, recognition of local cultures and the obligation of custodianship, building leadership capacity in Indigenous People and effective, genuine and reciprocal community engagement.

Preliminary engagement with Aboriginal community stakeholders for the Blackwattle Bay project identified several key general principles for design in precinct planning, including: reflecting culture through tangible markers (such as dual names, symbolism in design and interpretative public spaces), economic prosperity (through providing opportunities in recreation and tourism industry), cultural levies, employment and training opportunities, ongoing engagement, healing (and the importance of water) and truth telling. Findings from the report also identified several Aboriginal stories of place; with a focus on the cultural landscape of Blackwattle Bay and its surrounds, clan boundaries of the assessment area, important Aboriginal figures of local clans, the role of women in fishing economies, the importance of the Blackwattle Creek resource and Aboriginal land use related to Pyrmont's 'Tinker's Well'.

Engagement with Aboriginal stakeholders also identified (culturally sensitive) stories and specific cultural information regarding the assessment area. Generally speaking, emphasis was placed on the desire to create an understanding of the importance of Country and the Aboriginal cultural landscape; including the role of boundaries, pathways, biodiversity and important sites. Ongoing and continuous ties to the assessment area were identified, with many local Aboriginal community members highlighting their continuing and enduring relationship with the Blackwattle Bay and Pyrmont area, despite a long history of dispossession and change.

In summary, the creation and implementation of the Greater Sydney Regional Plan: A Metropolis of Three Cities – connecting People and the Greater Sydney 2056 Eastern City District Plan- connecting communities, indicate the changing attitude towards the way in which we view Aboriginal archaeological and cultural heritage. This is further demonstrated through multiple innovative Aboriginal community engagement strategies and initiatives which seek through both planning and heritage best practice, to increase cultural awareness in planning principles and strategy at both local and state government levels.

These documents provide evidence that acknowledging and embracing Aboriginal culture and heritage within the Pyrmont Place Strategy will be fundamental to increasing not only the visibility of the Aboriginal cultural narrative within the Pyrmont Peninsula, but to enhancing the overall heritage value of Pyrmont. The Pyrmont Peninsula Place Strategy has an exciting and unique opportunity to provide recognition for contemporary Aboriginal communities and their Aboriginal past in the public domain. Achieving this would contribute significantly to creating an authentic, attractive and vibrant Pyrmont Peninsula.

7 Summary and Recommendations

The Pyrmont Peninsula Place Strategy Indigenous Cultural Heritage Report has identified a number of key considerations related to Aboriginal archaeological and cultural heritage which should be incorporated into the overall Pyrmont Place Strategy. These have been identified based on a review of heritage and planning best practice, an evaluation of the environmental context and an understanding of the existing Aboriginal archaeological character of the Pyrmont Peninsula.

The current Aboriginal archaeological assessment has identified a total of six registered Aboriginal archaeological sites located within the Pyrmont Peninsula study area, as shown on Figure 11: The Bays Precinct PADO2 (AHIMS 45-6-3338), Jacksons Landing Shelter (AHIMS 45-6-2960), The Bays Precinct PADO1 (AHIMS 45-6-3339), Ultimo PAD 1 (AHIMS 45-6-2652), Darling Central Midden (AHIMS 45-6-3217) and UTS PAD 1 14-28 Ultimo Rd Syd (AHIMS 45-6-2979). Further Aboriginal archaeological assessment would be required prior to any impacts to Aboriginal archaeological sites and should be undertaken in accordance with the requirements of the relevant legislation.

- Relevant guidelines for the assessment of Aboriginal heritage include the DPIE Due Diligence Code of Practice
 for the Protection of Aboriginal Objects in New South Wales (OEH 2010a), Code of Practice for Archaeological
 Investigation of Aboriginal Objects in New South Wales (OEH 2010b and the Guide to investigating, assessing
 and reporting on Aboriginal cultural heritage in NSW (OEH 2011).
- Registered Aboriginal archaeological sites on the AHIMS database which have been recorded in the incorrect location will need to be updated on the AHIMS database. This has been undertaken during the current project, in order to produce a more accurate record of existing, known sites.

One further Aboriginal heritage feature, "Tinker's Well" was identified in the north-western corner of the study area (Figure 11).

 Whilst the feature has been destroyed and does not constitute a registered Aboriginal archaeological site, the feature should be included in any further cultural assessment to determine its cultural or social value to the contemporary Aboriginal community.

The vast majority of the study area has been subject to extensive disturbance due to historic and contemporary industrial, infrastructure, residential, public recreation, commercial and mixed land use purposes. In general, the extent of disturbance has severely curtailed Aboriginal archaeological potential. However, previous studies have identified that the survivability of Aboriginal archaeological deposit is highly variable and strongly tied to the nature and extent of disturbance at specific site locations.

Despite evidence of extensive landform and landuse disturbance throughout the study area, areas present across the original landform which have been subject to limited ground surface modification have the potential to contain remnant natural soils. Any remnant natural soils (buried or exposed) have the potential to retain any attendant subsurface Aboriginal archaeological deposit. The approximate extent of the original peninsula landform within the study area (prior to reclamation works) has therefore been identified as an area of archaeological sensitivity (Figure 11).

- Further Aboriginal archaeological assessment would be required prior to impacting any area of archaeological sensitivity, on a project-by-project basis.
- Future assessments should consider the nature and extent of existing disturbance at the project location, and the likelihood of any remnant natural soils with Aboriginal archaeological potential at the location being disturbed by the project.
- Where intact Aboriginal archaeological deposits are identified, these are likely to be of high value and should be conserved where possible.

The Pyrmont Peninsula is of both archaeological and cultural significance to the contemporary Aboriginal community and forms a key strand in the broader tapestry of cultural heritage held by the City of Sydney. The current assessment has identified that the Pyrmont peninsula and the wider landscape around it retain both tangible and intangible links to the Aboriginal past. While the archaeological record may be sparse, Aboriginal cultural significance is not exclusive to physical material. An understanding of other social and cultural values held by the Aboriginal community will therefore be required to inform a fuller and more holistic understanding of the study area's Aboriginal heritage story. This broader consideration of Aboriginal heritage should form a key element of the Pyrmont Peninsula Place Strategy.

The most effective way to identify and characterise Aboriginal heritage values within the study area is to combine contemporary Aboriginal knowledge with history and archaeology. As has been acknowledged, effective engagement with Aboriginal communities is a vital component to understanding the Aboriginal heritage values of place and should be founded on a dialogue of self-determination, economic participation and mutual respect.

Key recommendations for further consideration of Aboriginal heritage values within the Pyrmont Peninsula Place Strategy therefore include:

- The concept of Aboriginal 'Place' represents an enduring connected continuum from pre-European times until the present day. The enduring Aboriginal sense of place gifts the ability to make simultaneous connections between past and present literally grounding the ideas and values of place across time and within space. The Pyrmont Peninsula Place Strategy is not a new start; rather the strategy is an evolving reflection of usage which has ties to the past.
- Aboriginal community consultation would be required as part of any further Aboriginal cultural assessment
 undertaken for the project. For archaeological assessments, this may include consultation undertaken in
 accordance with the DPIE Aboriginal cultural heritage consultation requirements for proponents 2010 (OEH
 2010c).
- Further Aboriginal cultural assessment is required. It is recommended that a full Aboriginal cultural
 assessment be undertaken in order to provide a comprehensive understanding the broader Aboriginal
 cultural landscape within the Pyrmont Peninsula. This would include identifying local knowledge holders and
 seeking to determine how they wish to contribute to the project. Previous studies have shown that the
 inclusion of Aboriginal heritage values early in the place-based planning process leads to more beneficial
 heritage and planning outcomes.
- Additional cultural values identified as part of the Aboriginal cultural assessment should be added to the sensitivity mapping to create a more holistic representation of all identified Aboriginal cultural heritage values – archaeological, cultural, social, environmental and so on - and enrich Pyrmont Peninsula's Aboriginal cultural narrative.
- Any specific cultural values identified through further Aboriginal cultural assessment should be considered in
 future planning. The GANSW *Designing with Country* project and resulting principles and frameworks should
 be considered as a practical guide when considering the inclusion of Aboriginal cultural heritage values in
 master planning and/or future planning proposals.
- Development of a place strategy should not only acknowledge, but thoughtfully engage with the
 multifaceted nature of Aboriginal heritage within the Pyrmont Peninsula. This may include interpretation
 and celebration of archaeological, historical, environmental and cultural values. Proposals should
 acknowledge that this land was used by Aboriginal people and has an Aboriginal history and ongoing
 connection.
- It should be emphasised that Pyrmont's long and evolving history of human habitation constitutes a 'continuity of place' both contemporary and ancient, the old and the new.
- Innovative interpretation has the ability to improve public access and connection to Aboriginal heritage. Heritage interpretation should consider the identification, enhancement and protection of views of scenic and cultural landscapes.
- An Aboriginal Heritage Interpretation Strategy should be prepared by a specialist Interpretation Consultant (i.e. non-archaeological consultant) as part of the Pyrmont Peninsula Place Strategy. This should be undertaken following the Aboriginal cultural assessment and incorporate those findings along with archaeological values. The Aboriginal community should be consulted on potential interpretation strategies.
- Place-based planning strategies should strive towards strengthening economic self-determination of Aboriginal communities (particularly through recreation and tourism opportunities).
- Existing City of Sydney council partnerships and frameworks discussed in Chapter 6 should be referred to
 and considered for inclusion into the Pyrmont Peninsula Place Strategy. The integration of endorsed and
 adopted City of Sydney engagement strategies and planning initiatives (specifically the *Eora Journey, Harbour Walk* project) within the Place Strategy would lead to further opportunities to provide tangible
 outcomes for the Aboriginal community. The specifics of these should be determined in consultation with
 the Aboriginal community.

Next Steps

The next steps of the assessment process will involve more detailed assessment of Aboriginal cultural heritage values associated with the Pyrmont Peninsula in relation to the Place Strategy. The next stages of the assessment will include:

- A comprehensive process of Aboriginal community consultation;
- A full Aboriginal cultural assessment;
- The addition of any areas of Aboriginal cultural sensitivity identified through further assessment to the Aboriginal heritage sensitivity mapping;
- The development and refinement of key recommendations resulting from further consultation and assessment.



References

- Artefact Heritage Pty Ltd, 2019a. The Bays Market Precinct Rezoning: Aboriginal Cultural Heritage Assessment Report (AHCAR). Report prepared for Infrastructure NSW.
- Artefact Heritage Pty Ltd, 2019b. Addendum to Artefact Heritage (2017) The Bays Market Precinct Rezoning: Aboriginal Cultural Heritage Assessment Report. Addendum report prepared for Infrastructure NSW.
- Artefact Heritage Pty Ltd, 2019c. The new Sydney Fish Market, Part Lot 3 DP1018801 & Parts Bridge Road, Pyrmont: Aboriginal Heritage Due Diligence Assessment. Report to Infrastructure NSW.
- Artefact Heritage Pty Ltd, 2014. Bays Precinct: Preliminary Aboriginal Heritage Assessment. Report prepared for UrbanGrowth NSW.
- Attenbrow. V. 2010. 'Aboriginal fishing on Port Jackson, and the introduction of shell fish-hooks to coastal New South Wales, Australia in *The Natural History of Sydney*'. Lunney, D., Hutchings, P and Hochuli, D. (eds) Royal Zoological Society of NSW, Mossman, NSW, Australia, pp. 16-34.
- Attenbrow, V., 2002. Sydney's Aboriginal Past: Investigating the Archaeological and Historical Records. University of New South Wales Press, Sydney.
- Bannerman, S.M., Hazelton, P.A., and Tille, P.J., 1990. Penrith 1:100,000 Soil Landscape Series Sheet 9030. Soil Conservation Service of NSW, Sydney.
- Birch, G. & O. Murray, I. Johnson, A. Wilson. 2009. Reclamation in Sydney Estuary, 1788–2002. *Australian Geographer*. 40: 347-368.
- City Plan Heritage Pty Ltd, 2020. Heritage Interpretation Strategy: New Sydney Fish Markets. Report prepared for Infrastructure NSW.
- City of Sydney, 2019. CityPlan 2036 Draft Local Strategic Planning Statement. Report prepared for City of Sydney Council.
- City of Sydney, 2017. Sustainable Sydney 2030: Community Strategic Plan 2017-2021. Report prepared for City of Sydney.
- City of Sydney, 2016. Eora Journey Economic Development Plan. Report prepared for City of Sydney Council.
- Comber Consultants Pty Ltd, 2013. Sydney International Convention, Exhibition and Entertainment Precinct (SICEEP)
 Aboriginal Archaeological Assessment. Report prepared for Casey & Lowe on behalf of Darling Harbour Live.
- Comber Consultants Pty Ltd, 2008. Darling Quarter (formerly Darling Walk) Darling Harbour: Aboriginal Archaeological Excavation Report. Report prepared for Casey & Lowe on behalf of Lend Lease.
- Curio Projects, 2016. Redevelopment of Harbourside Shopping Centre Aboriginal Heritage Due Diligence Assessment Report. Report prepared for Mirvac.
- Doukakis, A. 2006. The Aboriginal People, Parliament and "protection" in New South Wales, 1856-1916. The Federation Press, Sydney
- Dowling, P.J. 1997. "A Great Deal of Sickness". Introduced Diseases Among the Aboriginal People of Colonial Southeast Australia 1788-1900. PHD Thesis. Doctor of Philosophy. Australian National University, Canberra
- Fitzgerald, S. 2008a. Pyrmont. The Dictionary of Sydney. Online at: https://dictionaryofsydney.org/entry/pyrmont
- Fitzgerald, S. 2008b. Ultimo. The Dictionary of Sydney. Online at: http://dictionaryofsydney.org/entry/ultimo
- Government Architect New South Wales, 2020. Designing with Country: A Discussion Paper. Report prepared by Government Architect New South Wales.
- Godden Mackay Logan Heritage Consultants Pty Ltd (GML), 2009. Concept Plan University of Technology, Sydney: Aboriginal and Historical Archaeological Assessment. Report prepared for UTS Facilities Management Unit.



- GML, 2011. UTS 14-28 Ultimo Rd: Aboriginal Heritage Due Diligence Report. Report prepared for University of Technology Sydney.
- Greater Sydney Commission, 2018a. *Greater Sydney Region Plan: A Metropolis of Three Cities connecting people.*Greater Sydney Commission, NSW Government.
- Greater Sydney Commission, 2018b. Our Greater Sydney 2056: Eastern City District Plan connection communities.

 Greater Sydney Commission, NSW Government.
- Hunt, J and Ellsmore S. 2016. 'Navigating a Path through Delays and Destruction: Aboriginal Cultural Heritage Protection in New South Wales using Native Title and Land Rights'. McGrath, P (ed.). 2016. The Right to Protect Sites: Indigenous Heritage Management in the Era of Native Title. Australian Institute of Aboriginal and Torres Strait Islander Studies, Canberra.
- Illustrated Sydney News, Thursday 25 July 1889, p.20. "Pyrmont, from Glebe Island". Part of profile titled 'Pyrmont'.
- Irish, P and Goward, T. Darling Walk Midden. Published on City of Sydney Barani Website. Accessed 11 May 2020, online at: https://www.sydneybarani.com.au/sites/tinkers-well/
- Irish, P and Goward, T. Tinker's Well. Published on City of Sydney Barani Website. Accessed 11 May 2020, online at: https://www.sydneybarani.com.au/sites/tinkers-well/
- Karskens, G. 2016. Phillip and the Eora. Governing race relations in the colony of New South Wales. Sydney Journal, Vol 5, No 1. 39–55.
- McDaniel, E, 2019. Eora Journey Harbour Walk Storytelling Report: Draft. Report prepared for City of Sydney Council.
- Mitchell, P. 2002. Descriptions for NSW (Mitchell) Landscapes. NSW National Parks and Wildlife Service. Department of Environment and Climate Change, NSW.
- Murawin Consulting, 2020. Aboriginal Cultural Advice and Community Engagement Findings Report: A report to support the Blackwattle Bay State Significant Precinct. Report prepared for Infrastructure NSW.
- National Parks and Wildlife Service NSW (NPWS), 2003. The Bioregions of New South Wales: Their Biodiversity, Conservation and History. National Parks and Wildlife Service NSW, Hurstville NSW.
- Office of Environment and Heritage (OEH), 2010a. Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales. Office of Environment and Heritage, Sydney.
- OEH, 2010b. Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales: Part 6 National Parks and Wildlife Act 1974. Department of Environment, Climate Change and Water NSW, Sydney.
- OEH, 2010c. Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010: Part 6 National Parks and Wildlife Act 1974. Department of Environment, Climate Change and Water NSW, Sydney.
- OEH, 2011. Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW. Office of Environment and Heritage, Department of Premier and Cabinet, Sydney.
- Pickett, J. and Alder, J., 1997 .Layers of Time: the Blue Mountains and their Geology. Department of Mineral Resources: Sydney.
- Rich, E. 1986. Burwood & Strathfield Municipalities Heritage Studies: Aboriginal Sites. Report prepared for Fox & Associates.
- Tench, W., 1793. Complete Account of the Settlement at Port Jackson. G. Nicol and J. Sewell, London.
- Evening News, 1912.Tinker's Well. Evening News, 12 December 1912, p. 11. Online at: http://nla.gov.au/nla.news-article113775147.
- Troedson, A and L. Deyssing, 2015. Coastal Quaternary mapping of the southern Hunter to northern Illawarra regions, New South Wales. Geological Survey of NSW Quarterly Notes No. 146. Department of Industry, Skills and Regional Development, Orange NSW.
- Urbis Pty Ltd, 2017. Heritage Impact Statement and Archaeological Assessment: Ultimo Pyrmont Public School, Report prepared for Lacoste + Stevenson Architects.



- Urbis Pty Ltd, 2018a. Section 75W Modification Application MP08_0098: Aboriginal and Historical Archaeological Assessment. Report prepared for The Star Sydney.
- Urbis Pty Ltd, 2018a. Section 75W Modification Application MP08_0098: Response to Submissions (Heritage). Report prepared for The Star Sydney.
- Walsh, M. 1993. Languages and Their Status in Aboriginal Australia. In: Walsh, M and Yallop, C. (eds). 1993. Language and Culture in Aboriginal Australia. Aboriginal Studies Press

Additional online resources:

http://www.visitsydneyaustralia.com.au/lost-darling-isld.html

https://pyrmonthistory.net.au/black-wattle-bay-foreshore

https://www.sydneybarani.com.au/maps/

 $https://dictionary of sydney.org/contributor/city_of_sydney_cultural_ribbon_foreshore_histories_project$

Appendix A – AHIMS Search Results



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

Your Ref/PO Number: Pyrmont Client Service ID: 502305

SiteID	SteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
45-6-2647	KENS Site 1	AGD	56	333750	6250785	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		99857,100494, 102494,10276 3,102765
	Contact	Recorders	Don	ninic Steele A	rchaeological (Consulting		<u>Permits</u>	1428,1700	
15-6-2666	Wattle Street PAD 1	AGD		333150	6249450	Open site	Valid	Potential Archaeological Deposit (PAD):-		102494,10276 3,102765
	Contact	Recorders			rchaeological (Consulting		<u>Permits</u>	1738	
45-6-2663	Mountain Street Ultimo	AGD		333300	6249400	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		102494,10276 3,102765
	Contact	<u>Recorders</u>	Mar	y Dallas Con:	sulting Archaec	logists (MDCA)		<u>Permits</u>	1719	
45-6-2680	Broadway Picture Theatre PAD 1	AGD		333150	6249000	Open site	Valid	Potential Archaeological Deposit (PAD):-		102142,10249 4,102763,1027 65
	Contact	Recorders		Wheeler				<u>Permits</u>	1854	
:5-6-2838	420 George Street PAD	AGD		334080	6250670	Open site	Not a Site	Potential Archaeological Deposit (PAD):-		102494,10276 3,102765
	Contact	Recorders	74740	or.Tim Owe	SECRETARIA SECRETARIA PROCESSOR			<u>Permits</u>	2654	V. 190 . 190 . 190 . 190 . 190 . 190 . 190 . 190 . 190 . 190 . 190 . 190 . 190 . 190 . 190 . 190 . 190 . 190 .
15-6-2960	Jackson Landing Shelter	GDA		332442	6250870	Closed site	Valid	Potential Archaeological Deposit (PAD):-		102494,10276 3,102765
	Contact	Recorders	Mar	y Dallas Con:	sulting Archaeo	logists (MDCA),N	fr.Paul Irish	Permits		Section Set on Poly America Supremed to
5-6-2979	UTS PAD 1 14-28 Ultimo Rd Syd	GDA	56	333650	6249590	Open site	Valid	Potential Archaeological Deposit (PAD):-		102494,10276 3,102765
	Contact	Recorders	Don	inic Steele A	rchae ological (Consulting,Mr.Doi	mini <i>c</i> Steele	<u>Permits</u>	3458	
¥5-6-3705	Kent and Erskine St PAD	GDA	56	333876	6251145	Open site	Valid	Potential Archaeological Deposit (PAD):-		
	Contact	Recorders	GMI	. Heritage Pty	7 Ltd + Context	- Surry Hills,Ms.J	odi Cameron	<u>Permits</u>		
5-6-3762	Harrington IFS01	GDA	56	334178	6251888	Open site	Valid	Artefact : 1		
	Contact	Recorders	AMA	AC Group P/I	.Mr.Benjamin	Streat		<u>Permits</u>		
F5-6-2581	Angel Place	GDA	56	334223	6251138	Open site	Valid	Artefact :-	Open Camp Site	97963,102494, 102763,10276 5
	Contact	Recorders			rchaeological (Consulting		<u>Permits</u>	918	
45-6-1853	Lilyvale	AGD	56	333950	6251600	Open site	Valid	Shell:-, Artefact:-	Midden	102763

Report generated by AHIMS Web Service on 05/05/2020 for Matthew Kelleher for the following area at Datum: GDA, Zone: 56, Eastings: $331615 \cdot 334425$, Northings: $6248715 \cdot 6252220$ with a Buffer of 0 meters. Additional Info: Archaeological assessment. Number of Aboriginal objects found is 29

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

Your Ref/PO Number: Pyrmont Client Service ID: 502305

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
45-6-2652	Ultimo PAD 1	AGD	56	333450	6250000	Open site	Valid	Potential Archaeological Deposit (PAD):-		102494,10276 3,102765
	<u>Contact</u>	Recorders	Jim V	Wheeler				Permits	1598	
45-6-2742	171-193 Gloucester Street PAD	AGD	56	333926	6251461	Open site	Valid	Potential Archaeological Deposit (PAD):-		102763
	Contact	Recorders	Jim V	Wheeler				<u>Permits</u>	2143,2342,2766	
45-6-2745	University of Sydney Law Building PAD	AGD		332350	6248740	Open site	Valid	Potential Archaeological Deposit (PAD):-		102201,10249 4,102763,1027 65
	<u>Contact</u>	Recorders	Doct	or Jo McDon	ald			<u>Permits</u>	2153,2320,2443	
45-6-3071	445-473 Wattle Street PAD	GDA		333285	6249412	Open site	Valid	Potential Archaeological Deposit (PAD): 1		
	Contact	Recorders		is Pty Ltd - S	H2999			<u>Permits</u>		
45-6-3081	200 George Street	GDA	56	334237	6251637	Open site	Not a Site	Potential Archaeological Deposit (PAD): 1		103114
	Contact	Recorders	Ms.S	ally MacLem	nan			<u>Permits</u>	3577,3934,4239	
F5-6-2987	Poultry Market 1	GDA		333746	6249575	Open site	Valid	Artefact : 1		102494,10276 3
	Contact	Recorders	Ms.S	amantha Hig	gs,Biosis Pty L	td - Canberra		<u>Permits</u>	3506	
15-6-3064	445-473 WATTLE ST PAD	GDA		333285	6249412	Open site	Valid	Potential Archaeological Deposit (PAD): 1		102763
	Contact	Recorders		is Pty Ltd - S				<u>Permits</u>		
5-6-3654	CRS AS 01 (Central Railway Station Artefact scatter 01)	GDA	56	334055	6249146	Open site	Valid	Artefact : -		
	Contact	Recorders	Arte	fact - Cultura	ıl Heritage Mar	agement - Rose l	Bay,Ms.Jennifer Norfo	olk <u>Permits</u>		
15-6-2629	Broadway 1	AGD	56	333060	6249100	Open site	Valid	Artefact : -		102494,10276 3,102765
	Contact	Recorders	Dom	inic Steele A	rchaeological (Consulting		<u>Permits</u>	1299	
15-6-2637	George street 1	AGD	56	333860	6249880	Open site	Valid	Artefact : -		98238,102494, 102763,10276 5
	Contact	Recorders	Dom	inic Steele A	rchae ological (Consulting		<u>Permits</u>	1369	
45-6-2767	Tent Embassy	AGD	56	332680	6248680	Open site	Valid	Aboriginal Resource and Gathering : 1		102494,10276 3,102765
	Contact T Russell	Recorders	Bill I	Lord				Permits		

Report generated by AHIMS Web Service on 05/05/2020 for Matthew Kelleher for the following area at Datum: GDA, Zone: 56, Eastings: $331615 \cdot 334425$, Northings: $6248715 \cdot 6252220$ with a Buffer of 0 meters. Additional Info: Archaeological assessment. Number of Aboriginal objects found is 29





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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number: Pyrmont Client Service ID: 502305

SiteID	SteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
45-6-2796	320-328 George St PAD	AGD	56	334100	6251050	Open site	Valid	Potential Archa eological Deposit (PAD):-		102494,10276 3,102765
	Contact T Russell	Recorders	Mr.D	omini c Steel	e			Permits	2415	
45-6-2822	USY D: Central	AGD	56	332750	6248550	Open site	Valid	Artefact:-		100302,10249 4,102763,1027 65
	Contact	Recorders	Jo Mo	cDonald Cult	ural Heritage N	Aanagement see GM	IL .	<u>Permits</u>	2554	
45-6-3152	168-190 Day Street, Sydney PAD	GDA	56	333877	6250257	Open site	Not a Site	Potential Archaeological Deposit (PAD):-		
	Contact	Recorders	Mr.Jo	osh Symons,I	Mr Alex Timms			<u>Permits</u>	3789	
45-6-3116	Wynyard Walk PAD	GDA	56	333931	6251252	Open site	Destroyed	Potential Archaeological Deposit (PAD): 1		
	Contact	Recorders	GML	Heritage Pty	7 Ltd + Context	- Surry Hills, GML H	eritage Pty Ltd + Co	ntext - Surry <u>Permits</u>	3670	
45-6-3217	Darling Central Midden	GDA	56	333530	6250101	Open site	Valid	Aboriginal Ceremony and Dre aming : 1, Artefact : 1, Shell : 1		
	Contact	Recorders	Com	ber Consulta	nts Pty Limited	l,Ms.Tory Stening		<u>Permits</u>		
45-6-3338	The Bays Precinct PAD02	GDA	56	332354	6250885	Open site	Valid	Potential Archaeological Deposit (PAD):-		
	Contact	Recorders	Artei	fact - Cultura	l Heritage Man	agement - Rose Bay	,Mr Michael Lever	Permits		
45-6-3339	The Bays Prednct PAD01	GDA	56	332779	6250555	Open site	Valid	Potential Archa eological Deposit (PAD):-		
	Contact	Recorders	Artei	fact - Cultura	il Heritage Man	Heritage Ma Permits				

Report generated by AHIMS Web Service on 05/05/2020 for Matthew Kelleher for the following area at Datum: GDA, Zone: 56, Eastings: $331615 \cdot 334425$, Northings: $6248715 \cdot 6252220$ with a Buffer of 0 meters. Additional Info: Archaeological assessment. Number of Aboriginal objects found is 29



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