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29 April 2021

DA Submission – Ongoing consultation with La Perouse Local Aboriginal Land Council (LPLALC)

Via email

Aboriginal Archaeological Heritage Impact Assessment prepared with the LPLALC to assist in planning for the proposed conservation and upgrade at Bondi Surf Bathers' Life Savers Club at Bondi Beach, NSW

Please find attached an Aboriginal archaeological heritage impact assessment that we have prepared for your proposal through ongoing consultation with Mr David Ingrey representing the La Perouse Local Aboriginal Land Council (LPLALC). David and the LPLALC have shared cultural knowledge with us in the course of preparing this report, and I would like to acknowledge that.

I look forward to further collaborating with you and David and the LPLALC on this project as it develops.

Yours Sincerely,

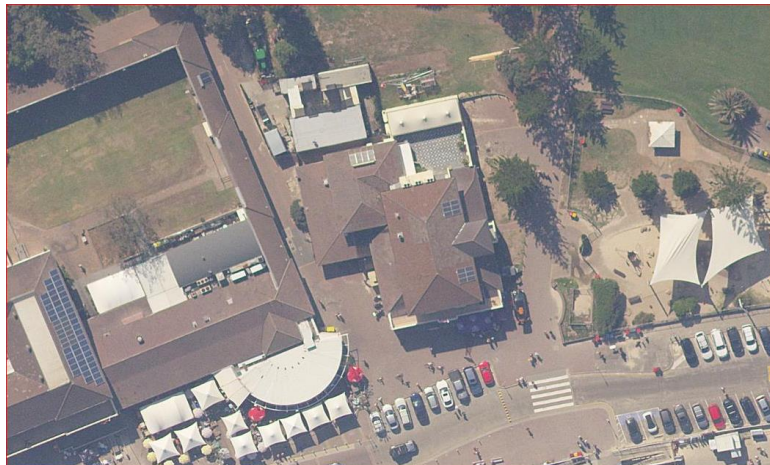
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Dominic Steele

Dominic Steele Consulting Archaeology

# Due Diligence Aboriginal Archaeological Heritage Impact Assessment

Proposed Conservation and Upgrade at Bondi Surf  
Bathers' Life Savers Club, Bondi Beach, NSW



Report to  
**Lockhart-Krause Architects**

Dominic Steele Consulting Archaeology  
20 April 2021

## Aboriginal archaeological impact assessment – Bondi Surf Bathers' Life Savers Club – April 2021

## Document control

Project Name	Due Diligence Aboriginal Archaeological Heritage Impact Assessment. Proposed Conservation and Upgrade at Bondi Surf Bathers' Life Savers Club, Bondi Beach, NSW
Client Name	Lockhart-Krause Architects
Recipient	Jesse Lockhart-Krause
Issue Date	20 April 2021
Prepared by	Dominic Steele

### Report summary

*Waverley Council* proposes in partnership with *Bondi Surf Bathers Life Saving Club* to undertake heritage conservation and upgrade works at Bondi Surf Bathers' Life Saving Club (BSBLSC). This due diligence Aboriginal archaeological impact assessment has been prepared for *Lockhart-Krause Architects* in consultation with *La Perouse Local Aboriginal Land Council* (LPLALC) to inform a DA for the upgrades. The objectives of this report have been to identify whether there are known or potential Aboriginal archaeological constraints to the proposal under the provisions of the *National Parks and Wildlife Act 1974* (NPW Act), to understand the nature and potential significance of any archaeological constraints that may be identified for the project, and to recommend appropriate actions to manage potential Aboriginal archaeological impact risk according to the requirements of the NPW Act.

This report has followed the 'Due Diligence Code of Practice' method that encourages a precautionary approach when carrying out activities that may harm Aboriginal objects by taking reasonable measures to establish if the activity will cause harm and if so by identifying and implementing measures to avoid or mitigate heritage impact.

No Aboriginal archaeological sites or objects have previously been reported to occur within the BSBLSC study area but one Aboriginal archaeological site is recorded for Bondi Beach as AHIMS #45-6-2169 and this refers to the retrospective registration of an old land surface with extensive Aboriginal cultural materials at the beach that was exposed after a storm in 1899.

The depth of excavation for the new basement (approximately 3.8 metres below current ground level) along with localised but deep excavations for shoring and services and a lift will extend to depths that may encounter in situ buried sandy soil profiles that have the potential to contain Aboriginal objects and archaeological deposits. There is also a possibility redeposited Aboriginal objects are already be incorporated within the building construction deposits, service-lines and in surrounding landscaping fills. Such objects are still protected according to the NPW Act and have Aboriginal cultural heritage significance and potential archaeological research value.

The recommendations presented in this report are based on the requirements of the *National Parks and Wildlife Act 1974* (as amended), the outcomes of consultation with the LPLALC for the project, and the results of this archaeological assessment reported. It is recommended that:

- An Aboriginal Archaeological & Cultural Heritage Assessment (AACHA) be prepared for the proposed for the Bondi Surf Bathers' Life Saving Club conservation and upgrade project and be used to support an application to *Heritage NSW* for an *Aboriginal Heritage Impact Permit* (AHIP) issued under the *National Parks and Wildlife Act 1974* to manage potential Aboriginal objects and archaeological deposits contained within the study area that may be harmed by the proposal. The AACHA and AHIP application should follow the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010).



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## 1.1 Background

**Figure 1.1: Location of Bondi Surf Bathers Life Saving Club at Bondi Beach (Lockhart-Krause Architects 2020)**



## 1.2 Proposed conservation and upgrade works

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anticipated to be required to extend to depths of approximately 3.8 metres below ground, with localised deeper excavations for lift pits, services, shoring and foundations. Concept and design plans

### 1.3 Statutory heritage context and controls

#### 1.3.1 National Parks and Wildlife Act 1974 (as amended)

*Heritage NSW* has the responsibility for the protection and management of Aboriginal sites, objects, places and cultural heritage values in NSW. These values are managed through the provisions of the *National Parks and Wildlife Act 1974* (NPW Act) which was amended through the *NPW Act Amendment Act 2010*. Key points of the amended Act are as follows:

- Part 6 of the NPW Act provides protection for Aboriginal objects and places by establishing offences of harm which is defined to mean destroying, defacing, damaging or moving an Aboriginal object. Aboriginal objects are defined by the NPW Act as *'any deposit, object or material evidence (not being a handicraft for sale) relating to Indigenous and non-European 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'*.
- A declared Aboriginal Place this is of special significance to Aboriginal people and culture is a statutory concept (and may or may not contain Aboriginal objects as physical/tangible evidence) and protection provided to Aboriginal objects and places applies irrespective of the level of their significance or issues of land tenure.
- It is an offence (under Section 86) of the NPW Act to knowingly, or cause or permit harm to an Aboriginal object (or place) without prior written consent from the DG of the OEH. Defences and exemptions to the offence of harm under the NPW Act include that harm is carried out under the terms and conditions of an approved Aboriginal Heritage Impact Permit (AHIP).

#### 1.3.2 Heritage Act 1977 (as amended)

The *NSW Heritage Act 1977* provides protection to items of environmental heritage in NSW. Under the Act, 'items of environmental heritage' include places, buildings, works, relics, moveable objects and precincts identified as significant based on historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic values. State significant items are listed on the *NSW State Heritage Register* (SHR) and are given automatic protection under the Act against any activities that may damage an item or affect their heritage significance. The SHR and *State Heritage Inventory* (SHI) are maintained by the Heritage Division of the OEH. Items on the SHI include heritage items identified in LEP schedules by local councils and items identified by state government agencies in their Section 170 registers.

Approval under the *NSW Heritage Act 1977* is required for building works to items listed on the SHR but not for items listed on the SHI only or an LEP schedule (which require Council approval). The BSBLSC is within the curtilage of the SHR listed 'Bondi Beach Cultural Landscape'.

### 1.3.3 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) establishes a framework for cultural heritage values to be formally assessed in the land use planning and development consent process. The *EP&A Act* requires that environmental impacts be considered prior to land development; this includes impacts on cultural heritage items and places as well as archaeological sites and deposits. The *EP&A Act* also requires that Local Governments prepare planning instruments, such as *Local Environmental Plans* (LEPs) and *Development Control Plans* (DCPs), in accordance with the *Act* to provide guidance on the level of environmental assessment required.

The study area falls within the boundaries of the Waverley LGA and is covered under the provisions of WLEP 2012 and WDCP 2012.

### 1.3.3 Local controls - Waverley LEP 2012

The BSBLSC is within the curtilage of 'Bondi Beach' (Item 193) in *Schedule 5* of the WLEP 2012 and is also identified as having National heritage significance on the same schedule. 'Bondi Beach and Park' is also listed as having local heritage significance (Item I503).

## 1.4 Heritage assessment and reporting methods

This report has followed the Due Diligence Code of Practice method:

### 1.5 Aboriginal consultation

This report has been prepared in consultation with the *La Perouse Local Aboriginal Land Council* that has been ongoing from the project initiation in September 2018. A copy of this report has been forwarded to the LPLALC cultural heritage advisor, Mr Dave Ingrey, for review and comment. It is understood that the LPLALC will provide their cultural heritage statement for the project separate to this report.

## 2.0 Landscape and environmental heritage context

### 2.1 Geology

The bedrock geology of Bondi Beach is Hawkesbury Sandstone (dating to the Triassic ~251-201 million years ago) and is exposed across wide areas with the remainder mapped as sediments mantling the bedrock and these sediments are the geological deposits of interest to archaeologists. The deposits that mantle this bedrock are all Quaternary in age (2.58 million years ago to the present), with the majority almost certainly dating to the Upper Pleistocene (126,000-11,700 years ago) and Holocene (11,700 years ago to present) epochs and stages. These deposits and their stratigraphic relationships form part of one landform system – a coastal barrier - and this provides a framework to unravel the processes that have created the sediment mantle the sandstone bedrock at Bondi Beach and surrounds.

This landform system has differential potential for Aboriginal archaeological deposits depending on geomorphic setting (e.g. dune, barrier lake, ridgeline etc), the nature of the deposit (e.g. transported or residual topsoil, subsoil, colluvial or aeolian sediment etc) and the relative position or superposition of all deposits within a stratigraphic matrix (e.g. surface and subsurface extent of individual deposits and their physical relationships).

These factors influence the potential context of archaeological finds and predict whether these are found on ground surfaces, reworked within topsoils, or buried in stratified archaeological and/or natural sediments or soils. Conversely, it identifies deposits with no archaeological scientific significance such as infilling (resulting from earthworks - playing fields, landfill etc). There are four main types of formations on or around the study area (Troedson 2015):

- Qhbb: Holocene sandy beach: marine sand, shell, gravel;
- Qhbd: Holocene dune: marine sand;
- Qhbdr: Holocene bedrock mantling dune: marine sand; and
- Qpbdr (only illustrated in Figure 2.3): Pleistocene bedrock mantling dune: marine sand, indurated sand.

All of these units include a major component of marine sand and it is therefore the landform and stratigraphic position and/or age that distinguish these deposits from one another, as well as indicating whether there is potential for surface or deeply buried archaeological contexts to occur. The BSBLSC study area itself is located on the Holocene dune formation and close to the boundary of the Holocene sandy beach formation. These deposits have been steadily building over the Holocene and mantle the area from Bondi Beach to Rose Bay.

Figure 2.1: Geology of the study area and environs (Troesdon 2015: base map)

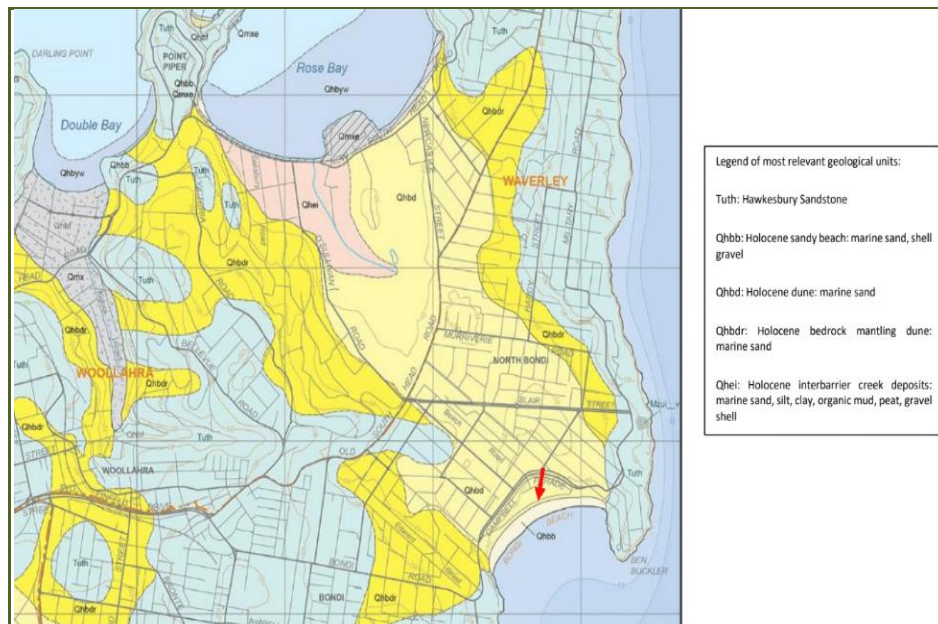
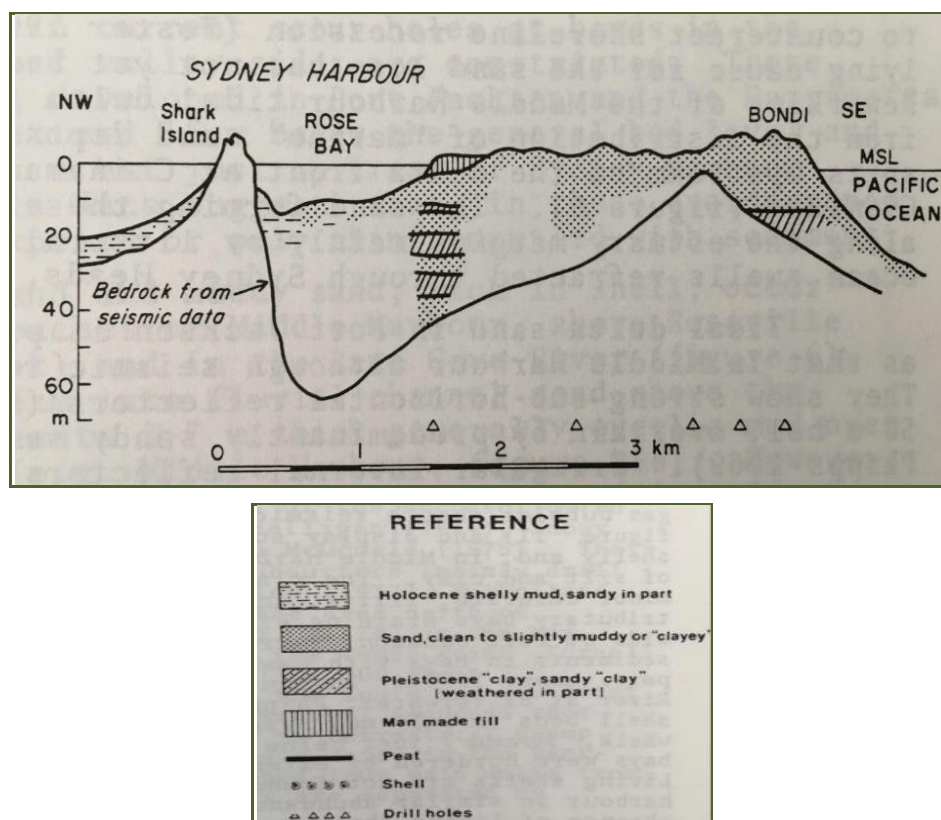


Figure 2.2: Schematic cross-section from Bondi to Rose Bay (Roy 1983: Figure 15h)





Previous studies of the Quaternary deposits of the Sydney 1:100 000 Geological Sheet (see Roy 1983) have identified the deep nature of this depositional sequence. More recently, Albani et al (2015) have reported paleo-drainage some 60m deep beneath Rose Bay to a subsurface peak of around 20m below ground levels in the vicinity of North Bondi, before diving down to over 40m below ground surfaces at Bondi Beach. This configuration of the bedrock topography reflects a watershed between two fluvial systems; a northwest facing catchment with a tributary of the paleo-watercourse of the Lower Parramatta River within Port Jackson, and a southeast facing catchment with a Bondi paleo-watercourse draining across the exposed continental shelf before and during times of lower sea level.

Based on the seemingly continuous nature of the sand body between the ocean at Bondi and the harbour at Rose Bay, it was previously thought this geological feature represented an old landscape 'outlet' to the harbour (Dowd 1959:47). However, more recent geological analysis shows such a channel never existed and the sand dunes are divided by a sandstone ridge located between Waverley and Dover Heights and form essentially the same catchments as today (Roy 1983:76).

Port Jackson is a drowned river valley with paleo-drainage that drained through North and South Heads to a palaeo-channel running east towards the coast about 6-9 km offshore (Roy 1983; Roy and Boyd 1996; Albani et al 2015; Thom and Oliver 2019). The drainage of Bondi Beach was initiated around modern-day North Bondi along a sandy ridge orientated north-east to south west and flowed into the paleo-watercourse of the Lower Parramatta River across what is today the submerged continental shelf.

In terms of the potential stratigraphic profile across the BSBLSC study area based on previous work, it is highly likely the Holocene bedrock mantling dune overlies earlier Pleistocene marine sands reworked as an earlier dune system (coastal barrier), alluvial plain or estuarine deposits from the Last Interglacial . There is about 40 metres of sediment before bedrock is reached (Roy 1983) beneath the study area, and this sediment profile may potentially reflect different sedimentary environments.

## 2.2 Upper Pleistocene and Holocene geomorphology

The topography and terrain of Bondi Beach and its environs is a product of a coastal barrier system that formed over a period encompassing a series of Interglacial, Glacial and Interstadial climatic regimes. Importantly, the processes acting over the Last Glacial cycle and in particular during the peak of the Last Glacial Maximum (LGM) generally reflected a gradual fall in sea level and the extension of the coastal plain, whereas the post-LGM represented - gradual – interspersed with rapid – rises in sea level (Albani et al 2015; Murray -Wallace and Woodroffe 2014; Roy and Boyd 1996; Williams et al 2018).

The lowering or rising of sea levels would have favoured different geomorphological environments and associated landforms as is reflected in the four Quaternary geological formations mapped (Holocene sandy beach, Holocene dune, Holocene bedrock mantling dune and Pleistocene bedrock mantling dune). A lower sea level and extensive coastal plain placing Bondi away from the coast would have meant wind and potentially alluvial and fluvial processes were largely responsible for the creation of the geomorphology. Conversely, the shrinking of the coastal plain because of rising sea levels initiated in the post-LGM because of climatic amelioration and melting ice sheets would have decreased the supply of marine sand - possibly creating estuarine conditions as sea levels approached the modern-day coast line - and subsequently creating the modern configuration of the beach at the time current levels (stillstand) was reached about 7,000 years ago.

Bondi Beach therefore forms part of what is described as a drowned valley type coastline with a continental shelf sand body known as the Sydney Shelf Sand Body (Roy and Boyd 1996). This area had tributaries that included the Bondi paleo-watercourse that drained across the now submerged coastal plain to join the palaeo-watercourse of the Parramatta River at times of lower sea level, shrinking to an embayment and barrier system as seen today when sea levels reached stillstand.

This interpretation is consistent with the models of Roy (1983), Roy and Boyd (1996), Albani et al (2015) and Thom and Oliver (2019) illustrating the movement of marine sands where relict versus active landforms depend on sea level and the relative size of the coastal plain. It also highlights that different geomorphic settings are linked to the relative height and position of sea levels in relation to an exposed or drowned continental shelf that created different dominant depositional environments via one or more geomorphic processes (i.e. alluvial, aeolian, estuarine or marine).

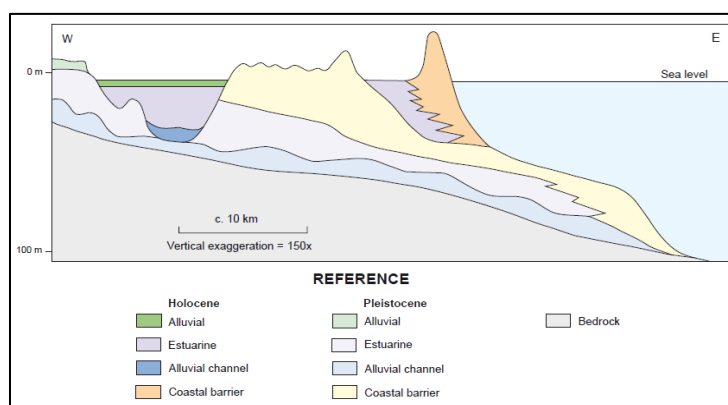
### 2.3 Pre-1788 geomorphology

Bondi Beach is a wide (~850m) embayment that is generally southeast facing beach protected by cliffs to the northeast and southwest that partially protect the beach as small sandstone cliff headlands jutting out to the south. Bondi Beach is unusual in that the bay is exceptionally wide and faces south-east instead of due east (MWA 2009:9). In the immediate pre-1788 period, the study area would have consisted of beach sands towards the coastal side, rising up to a series of foredunes around the back of the beach area. The Ben Buckler headland to the north forms the eastern boundary and McKenzie Point forms the southern extent of the beach to the south. The beach graded (interdigitated) with the rising transgressive sand dune system that mantled the incised sandstone bedrock between Bondi Beach and Rose Bay, the highest point being centred around North Bondi along a ridgeline generally orientated north-east to south-west.

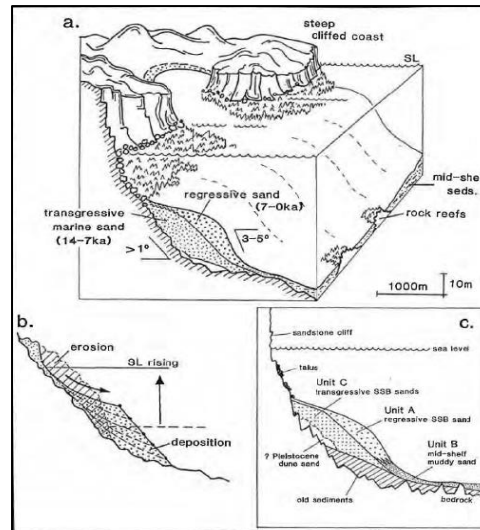


The terrain to the east (Dover Heights) and west (Bellevue Hill) rises steeply forming the sides of a bedrock valley within which the Quaternary deposits formed in a north-west (Rose Bay) to south east (Bondi Beach) orientation, with North Bondi the approximate watershed for creeks flowing into Rose Bay verses those flowing towards the coast. The study area itself is located on the edge of what is mapped as Holocene bedrock mantling dune, i.e. part of the transgressive dunes, where the promenade (Queen Elizabeth Drive) to the south of the Pavilion is the location of the boundary between the transgressive dunes and beach landform units. The foredunes and transgressive dunes rise towards the north of the beach all the way to North Bondi. There is evidence from Quaternary studies (e.g. Albani et al 2015), hazard risk assessments (e.g. Worley Parsons 2011) and from historical descriptions and mapping, that the transgressive dunes were crossed by numerous lagoons and creeks that existed behind the crescent shaped beach in low lying areas and drained the slopes above (next section).

**Figure 2.3: Generalised stratigraphic relationships between Quaternary deposits in NSW (Troedson et al 2008: Figure 9)**



**Figure 2.4: Model illustrating continental shelf sand bodies (Source: Figure 0.8; Roy and Boyd 1996: 19-20)**



- a) Shelf sand bodies occur along steep and deep sections of coast in southeast Australia and comprise transgressive and regressive units deposited subaqueously during the postglacial marine transgression and the following stillstand.
- b) At all stages of their formation, the direction of net sand movement was seaward.
- c) Idealised stratigraphic cross-section through the SSB showing relationships between the three main sediment units.

## 2.4 Hydrology and sea level changes

The topography and terrain of Bondi Beach and its environs is a product of a coastal barrier system formed over a period encompassing a series of Interglacial, Glacial and Interstadial climatic regimes:

- The Last Interglacial (MIS5e ~126-116,000 years ago);
- The Last Glacial cycle (~115,000 – 11,700 years ago), which also included:
  - Two short Interstadials of the Last Glacial cycle (MIS5c and a: ~105,000 and ~82,000 years ago respectively);
  - A longer Interstadial of the Last Glacial cycle (MIS3: ~64,000-32,000 years ago); and
  - The Last Glacial Maximum (MIS2 ~27-17,000 years ago); and
- The current Interglacial cycle (MIS1: Holocene 11,700 years ago until the present).

The processes acting between MIS5e until the peak of MIS2 generally represented a gradual fall in sea level and the extension of the coastal plain, whereas the post-MIS2 represent a gradual – interspersed with rapid – rises in sea level and the eventual loss by around 7,000 years ago of the coastal plain in front of Bondi Beach (see Murray -Wallace and Woodrooffe 2014; Williams et al 2018). Therefore, alluvial and fluvial features were much more likely to develop and incise into existing landforms and deposits during the Upper Pleistocene and to ‘back up’ (i.e. an emphasis on deposition rather than erosion/incision) during the Holocene, eventually being inundated and drowned as sea levels reached current levels around 7,000

years ago (hence the term 'drowned river valleys'). Swamps are likely to have developed at any time, although periods of wetter climate would have seen them expand and shrink during drier periods.

Lagoons are coastal features and are therefore only likely to have formed close to or around Bondi Beach from around 10,000 years ago when sea levels began to encroach on the existing coastline, which makes them some of the younger geomorphic features of the coastline. The back-dune areas of Bondi Beach originally had a series of freshwater lagoons fed by at least two (and possibly more) creeks that flowed down eastwards from the sandstone ridge along which Old South Head Road was aligned. Some of the lagoons appear to have been small and seasonal, enlarging and disappearing quickly depending on rainfall, however others were large and permanent.

An article titled 'Bondi Beach's lagoons' published by Waverley Library from Local History source material in 2011 cites an 1889 Water Board map that shows specific locations for the lagoons:

- Near the corner of the present day Lamrock and Jacques Avenue
- Between Simpson Street and Hall Street across Wellington Street
- Between Warners Avenue, Blair Street and Beach Road
- Near Old South Head Road and Warners Avenue
- Between Hastings Parade and Wairoa Avenue

Figure 2.5: Natural detention basins behind Bondi Beach (Civic Design 2007)



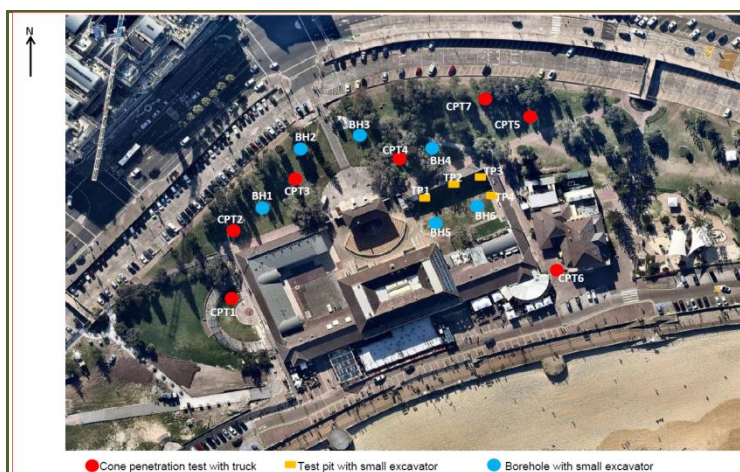
Figure 2.6: Lagoons and sand dunes and drainage at Bondi



## 2.5 Geotechnical information

Douglas Partners (November 2015) have reported on the results of geotechnical investigation for the nearby Bondi Pavilion upgrade project that provide information on subsurface conditions likely to be encountered at the BSBLSC. The *Sydney 1:100 000 Geological Series Sheet* indicates the site is underlain by medium to fine grained marine sand with podsols that form part of a transgressive dune system deposited by wind-blown processes. The area to the south is underlain by modern beach sands. Groundwater is likely to be some 5m or more below the ground surface and is likely to follow the surface topography and flow to the south.

**Figure 2.7: Location of geotechnical investigations at Bondi Pavilion (Douglas Partners August 2015)**



The bore logs show 'filling' consisting of dark to grey brown medium grained sandy topsoil with occasional rootlets and some medium to coarse gravel inclusions, over medium to light brown sand that becomes denser and wetter with depth. The 'fill' deposits are between 0.5m (BH1) to 1.2m (BH2) thick over natural sand profiles, and are likely to describe in a collective sense a number of different deposits created and deposited as a result of different activities. The 'fill' is likely to comprise a mix of true fills that are highly mixed and disturbed sandy soils potentially archaeological features and deposits. It should be noted that the descriptive data available from the geotechnical study is generally not suitable to establish or confirm the presence of subsurface archaeological deposits because the resolution lumps together any potential archaeology in the 'filling' category.

### 3.0 Aboriginal archaeological heritage context

#### 3.1 Aboriginal heritage sites in the Waverley LGA

Aboriginal archaeological site types recorded in the Waverley LGA include rock engravings, axe grinding grooves, open and sheltered middens, shelters with art and archaeological deposit, open campsites and burials. The majority of sites are located along the immediate coastal strip and consist primarily of rock engravings and open and sheltered campsites that fringe the foreshore. Considerable concentrations of sites (rock engravings in particular) occur at Long Bay, Maroubra Bay, Coogee Bay and Bondi Beach and the retention of a surprisingly large number of Aboriginal place names that are still in use in this part of eastern Sydney pays testament to the traditional Aboriginal ownership of the country.

Searches of the AHIMS for this study have identified recordings for four rock engraving sites that are situated on the northern and southern headlands respectively, two sandstone rock shelters ('caves') with shell midden in the sandstone cliff line topography nearby, and one open archaeological camp site that



refers to the retrospective registration of the extensive 'Aboriginal workshops' exposed at the beach in 1899. Two of the engravings are listed on the Waverley LEP (AHIMS #45-6-0719 located within Bondi Golf Course, and AHIMS #45-6-0750 located at Marks Park south of Mackenzie's Point). The engravings depict a range of fish, whale, shark, and anthropomorphic motifs (including *mundoes* or ancestral footprints). However, only a portion of the former site is included in the LEP listing.

**Table 3.1: Aboriginal sites registered on AHIMS within and nearby the BBCL study area**

AHIMS Site	AHIMS Site Name(s)	Site Type	Waverley LEP 1996 Listing
45-6-0718	Bondi; Hugh Bamford Park	Rock Engraving	Not listed
45-6-0719	Bondi Golf Links	Rock Engraving	A2 (only part of site listed)
45-6-0720	Bondi Bay; Ben Buckler	Rock Engraving	Not listed
45-6-0750	Marks Park; Mackenzies Point	Rock Engraving	Not listed
45-6-1947	Tamarama Beach Cave	Shelter with Midden	Not listed
45-6-2060	South Bondi Cave	Shelter with Midden	Not listed
45-6-2169	Bondi Beach	Open Campsite & Burial/s	Not listed

No new Aboriginal heritage sites (or specific areas of sensitivity) have been discovered within or nearby the study area (and registered with AHIMS) since the completion of the WACHS in 2008. However, one engraving site (#45-6-0718) and one shelter with midden (AHIMS Site #45-6-2060) may have been destroyed by comparatively recent development.

### 3.2 Discovery of a major Aboriginal campsite at Bondi Beach

In 1900, massive coastal gales shifted huge quantities of sand from behind the beach and exposed an extensive series of Aboriginal 'workshops' and a number of artefacts finds were collected before wind and wave action reburied the site. The distinctive 'backed' flakes collected at Bondi have since become the type-name ('Bondi point') for a stone artefact form that is frequently found at archaeological sites throughout south-eastern Australia from around c.8,500 years ago (or earlier) to around 1,500 BP. They were probably multi functional tools, and interpretations range from them being used as hunting spear barbs, cutting implements (hand-held), and/or hafted knives or awls (needles or points) used for working skins.

Etheridge & Whitelegge (1907:231-237) describe an old land surface across *'the whole length of the back of the beach [that] was more or less covered with tons of stones, all of which had been taken there and put to some use'*. Some artefacts were *'exquisitely made'* and some made from raw materials *'probably obtained from distant sources... quite foreign to the district'*. The exact location and extent of this

archaeological site is not known, but is likely to have extended across much of today's Bondi Park and under adjacent Campbell Parade. The age of the site is also known, but the authors recognised the likely antiquity of the Aboriginal cultural materials that they saw.

*There is ample evidence that many of the sand dunes were at one time much higher than they are now, and also that in some parts they had been covered with vegetation interspersed with native camping grounds, upon which vast quantities of shells were deposited; in course of time the vegetation was covered by sand drifts, other shell heaps formed at the summit, and the whole again buried. The period of time required for these various changes must have been very great, and it has required still greater lapse of time to produce the present condition'.*

## **4.0 Results of research and consultation and conclusions**

### **4.1 Aboriginal archaeological heritage findings**

No Aboriginal archaeological sites or objects have been identified within the BSBLSC study area, but it is possible Aboriginal objects and archaeological deposits occur below the depth of construction footprints or outside of building disturbance zones. There is also a potential for building construction deposits and fills beneath hard surfaces and within landscaped areas to the rear of the BSBLSC to contain buried and redeposited Aboriginal objects.

This archaeological potential is suggested by the descriptions of the extensive Aboriginal archaeological land-surfaces that were seen exposed (about 'one-hectare') in 1899. The evidence appears to reflect frequent and repeat use or more permanent and longer-term occupation of Bondi Beach by people in the past.

The BSBLSC and adjacent Bondi Pavilion and surrounds occupy a central position on the beachfront that originally formed a part of a far larger Aboriginal landscape that overlooked the beach on one side and was backed on the other side by dune fields with a network of freshwater lagoons that stretched back along a sand corridor to Rose Bay. Bondi Beach was also a good Aboriginal fishing spot with spotting provided by the two headlands. The 1899 Bondi Beach archaeology coupled with the nearby engravings on the elevated sandstone topography above the beach, suggests Bondi was a major focus of Aboriginal coastal occupation throughout prehistory.

### **4.2 Environmental heritage values**

Bondi Beach has had a long and dynamic natural evolution and has changed over the long time period Aboriginal people have lived here. The former land surfaces and old living floors exposed at the back of the beach in 1899 may relate to when environmental conditions at Bondi were different than today.

### **4.3 Aboriginal archaeological expectations**

Historical descriptions of how the former Bondi Sand Hills were levelled-out and the lagoons drained and filled describe process of cutting and filling and spreading sand at a desired 'level' and then grading the land flat or landscaping it. It is not known precisely what configuration or form the original BHS took within the vicinity of the BSBLSC study area, but their levelling prior to the creation of the first seawall and foreshore promenade is likely to have followed the same general principles of taking sand from the high points to fill the low points. Where large hills were flattened and used to fill deep gullies or lagoons there is a possibility that Aboriginal objects and archaeological deposits, even though reworked and out-of-context, may also survive sealed beneath considerable depths of overlying 'fill'.



The construction of the first seawall and promenade, followed by the construction of Bondi Pavilion required the shifting around and grading level of enormous quantities of sand. As a result, there is a possibility that pre-existing Aboriginal objects potentially present on the site before the BSBLSC was built may have subsequently been incorporated within a range of contexts within the footprint of the study area such as included in building construction deposits, within service-line fills, and incorporated into park/open-space landscaping materials. Although such objects would be derived from secondary archaeological contexts, they would still be protected according to the NPW Act and have Aboriginal cultural heritage significance and potential archaeological research value.

The discovery of burials during future works is unlikely but dispersed human skeletal material could theoretically occur within the similar range of secondary archaeological contexts noted above for reworked Aboriginal objects.

#### 4.4 Managing potential Aboriginal archaeological resources

This archaeological assessment has been guided by the *Due Diligence Code of Practice* (DECCW 2010) which is a step by step method that encourages a precautionary approach when carrying out activities that may harm Aboriginal objects by '*taking reasonable and practical measures to determine whether your actions will harm an Aboriginal object and, if so, what measures can be taken to avoid that harm*' (ibid:4). The steps in this processes required to identify whether or not Aboriginal objects are present, or are likely to be present in an area, whether or not future activities are likely to harm Aboriginal objects (if present), and to determine whether an AHIP application is required are:

1. Step 1 - Determining if the activity will disturb the ground surface or any culturally modified trees
2. Step 2a - Database search of the Aboriginal Heritage Information Management System (AHIMS) and other known information sources to identify if there are previously recorded Aboriginal objects or places in a study area
3. Step 2b - Landscape assessment through identification of landscape features including, land within 200 metres of water, dune systems, ridge tops, headlands, land immediately above or below cliff faces and/or rock shelters/caves
4. Step 3 - Impact avoidance assessment
5. Step 4 - Desktop assessment and visual inspection to identify if Aboriginal objects present (and if an AHIP is required)
6. Step 5 – Further investigation and assessment

The Code specifies that if the initial assessment identifies that Aboriginal objects will or are likely to be harmed by a proposed activity, then further investigation and impact assessment is required. Where an Aboriginal Heritage Impact Permit (AHIP) is sought from the OEH, it will require the completion of a full program of Aboriginal community consultation to prepare a comprehensive archaeological and cultural heritage assessment to support the AHIP.

The following responses to the questions above provide the basis for the Aboriginal heritage management recommendations that are presented in the following section.

*Determining if the activity will disturb the ground surface*

The proposal will include building activity that will disturb the ground including the construction of an extension over an approximately 3.8 metre deep basement at the rear of the BSBLSC with localised deeper excavations for lift pits, services, shoring and foundations.

*Database search of AHIMS and other sources to identify if there are previously recorded Aboriginal objects or places in a study area*

No Aboriginal archaeological sites or objects have previously been reported to occur within the BSBLSC study area. However, AHIMS #45-6-2169 refers to the retrospective registration of the Aboriginal cultural materials exposed at the beach in 1899.

Also identified by AHIMS searches for this study are four rock engraving sites that are situated on the northern and southern headlands respectively and two sandstone rock shelters with shell midden in the nearby cliff line topography.

*Landscape assessment through identification of landscape features including land within 200m of water, dune systems, ridge tops, headlands and land immediately above or below cliff faces and/or rock shelters/caves*

The first two of these Aboriginal heritage landform sensitivity categories apply directly to the Pavilion study area. The site originally formed part of a sand-dune complex in a central position overlooking the beach. The remaining landscape features form a part of the broader Bondi Beach cultural landscape and are also relevant to predicting the potential Aboriginal archaeological sensitivity of the BSBLSC study area in a general sense by virtue of their proximity and the presence of formerly associated resource and amenity attributes that were linked with these individual elements when they are considered together and combined may have attracted frequent Aboriginal visitation and use in the past.

*Impact avoidance assessment*

Actions to mitigate potential Aboriginal cultural heritage impacts that may result from the proposal include the completion of further Aboriginal community consultation to a level that is beyond the scope undertaken with the LPLALC for this report. This would facilitate the preparation of an Aboriginal archaeological and cultural heritage assessment (AACHA) that will enable the Proponents to establish what and how potential Aboriginal cultural heritage values may be affected by the proposal and how these impacts should be effectively managed. The following section recommends that an archaeological research design and practical management approach also be prepared to support an application for an Aboriginal Heritage Impact Permit under the NPW Act for the project.

*Desktop assessment and visual inspection to identify if Aboriginal objects present (and if an AHIP is required)*

No Aboriginal sites or objects have been previously identified to occur within the BSBLSC study area, and none have been located by the current study because no natural ground is exposed. All areas are covered by hard surfaces or landscaping.

However, the depth of excavation for the basement (approximately 3.8 metres below current ground level) along with localised but deep excavations for shoring and services and a lift that will extend below the general depths of fill identified to likely occur across the site footprint, and also below the depth of disturbance created by previous construction phases, may encounter in situ buried sandy soil profiles that have the potential to contain Aboriginal objects and archaeological deposits.

There is also a possibility redeposited Aboriginal objects are already be incorporated within the building construction deposits, service-lines and in surrounding landscaping fills.

The following section recommends that an application of for an AHIP under the *National Parks and Wildlife Act 1974* should be developed to manage the potential Aboriginal archaeological resource(s) that may be contained within the BSBLSC study area and which may potentially be harmed by the conservation and upgrade and building works proposed. The AHIP application would need to follow the procedures that are established by the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010).

## 5.0 Recommendations

The recommendations in this report are based on the requirements of the *National Parks and Wildlife Act 1974* (as amended), the outcomes of consultation with the LPLALC for the project, and the results of the archaeological assessment reported here.

It is recommended that:

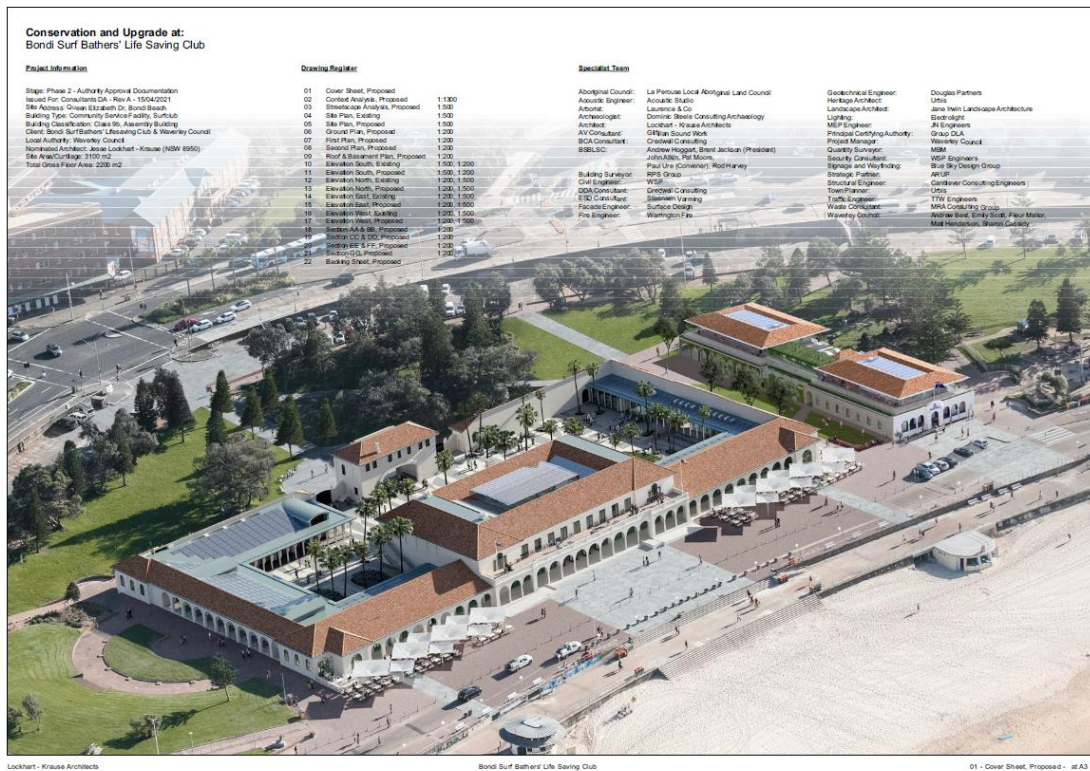
- An Aboriginal Archaeological & Cultural Heritage Assessment (AACHA) be prepared for the proposed for the Bondi Surf Bathers' Life Saving Club conservation and upgrade project and be used to support an application to *Heritage NSW* for an *Aboriginal Heritage Impact Permit* (AHIP) issued under the *National Parks and Wildlife Act 1974* to manage potential Aboriginal objects and archaeological deposits contained within the study area that may be harmed by the proposal. The AACHA and AHIP application should follow the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010).
- A copy of this report should be forwarded to the LPLALC for review and comment.

## 6.0 References

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**Appendix 1****Proposed BSLSC conservation and upgrade works (Lockhart-Krause Architects April 2021)**

Aboriginal archaeological impact assessment – Bondi Surf Bathers' Life Savers Club – April 2021



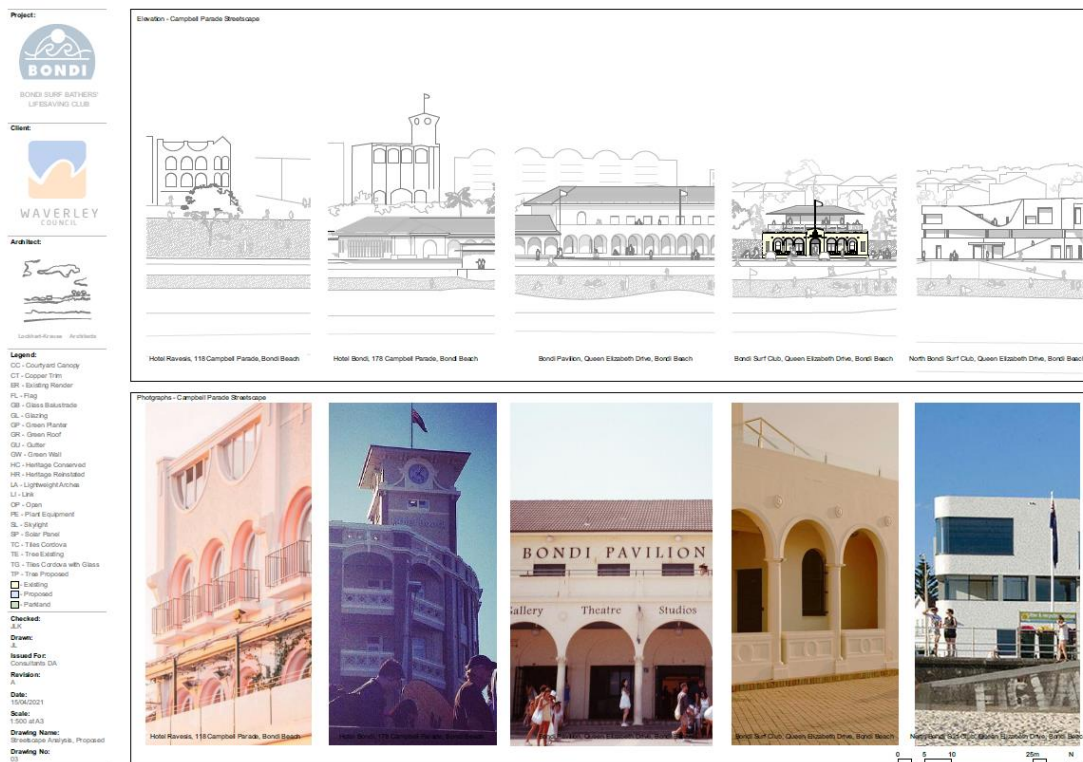


## Aboriginal archaeological impact assessment – Bondi Surf Bathers' Life Savers Club – April 2021

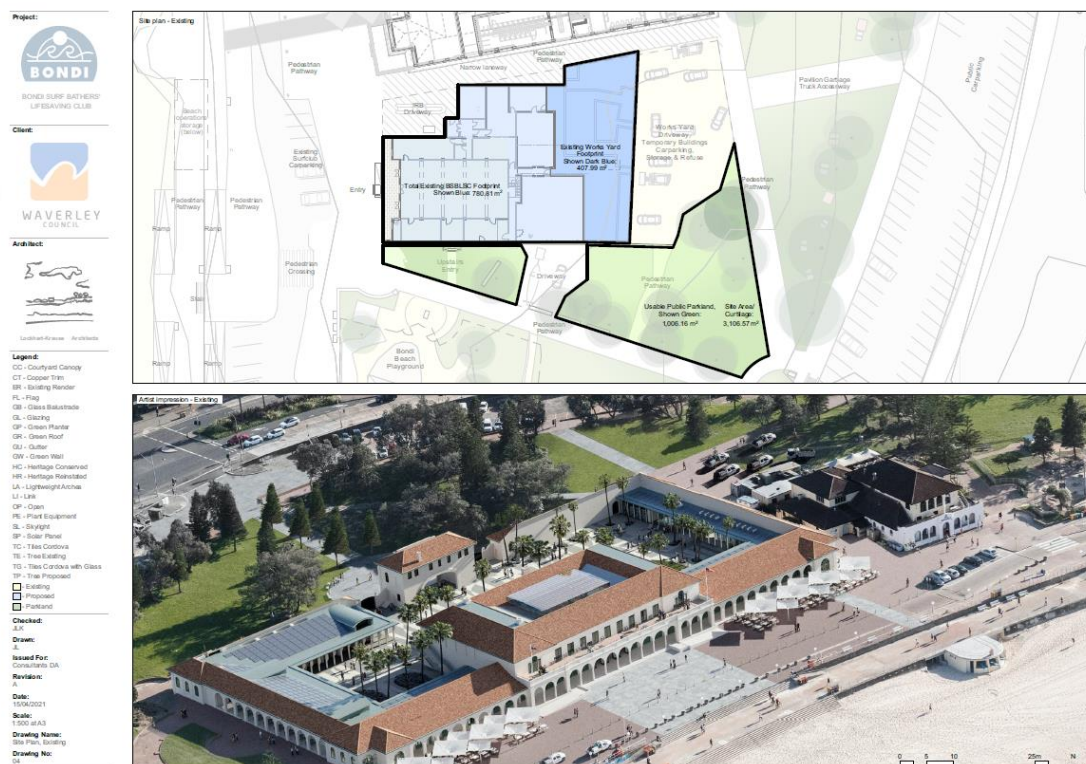




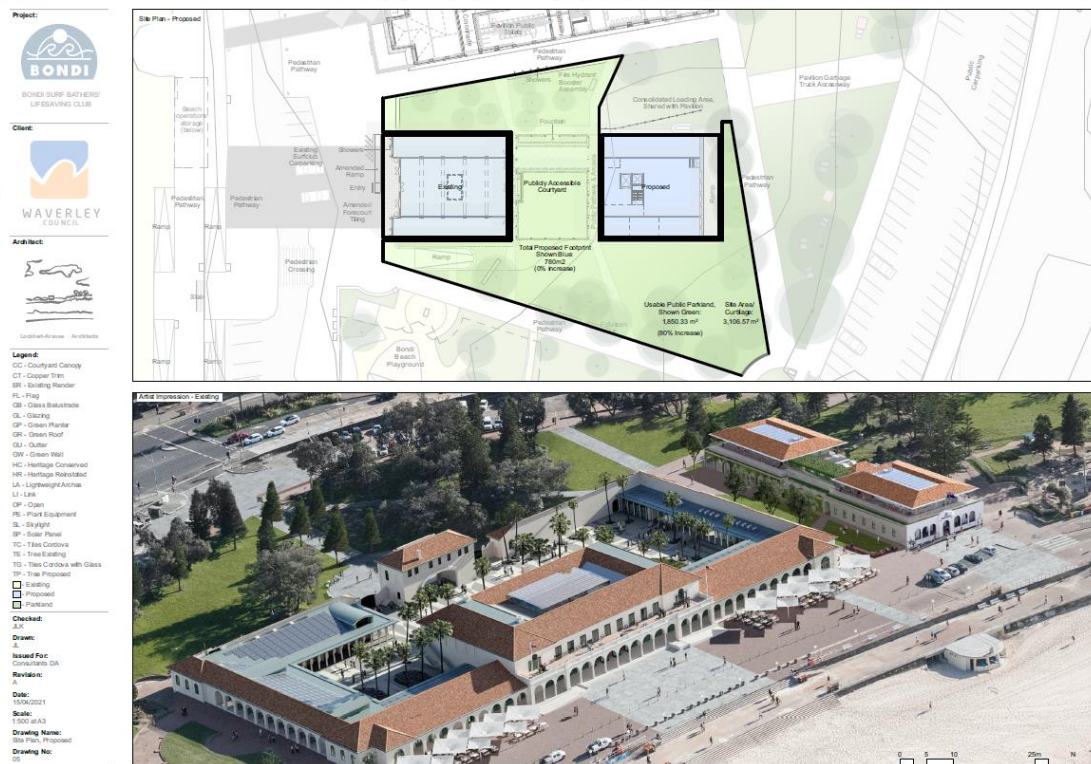
## Aboriginal archaeological impact assessment – Bondi Surf Bathers' Life Savers Club – April 2021



## Aboriginal archaeological impact assessment – Bondi Surf Bathers' Life Savers Club – April 2021

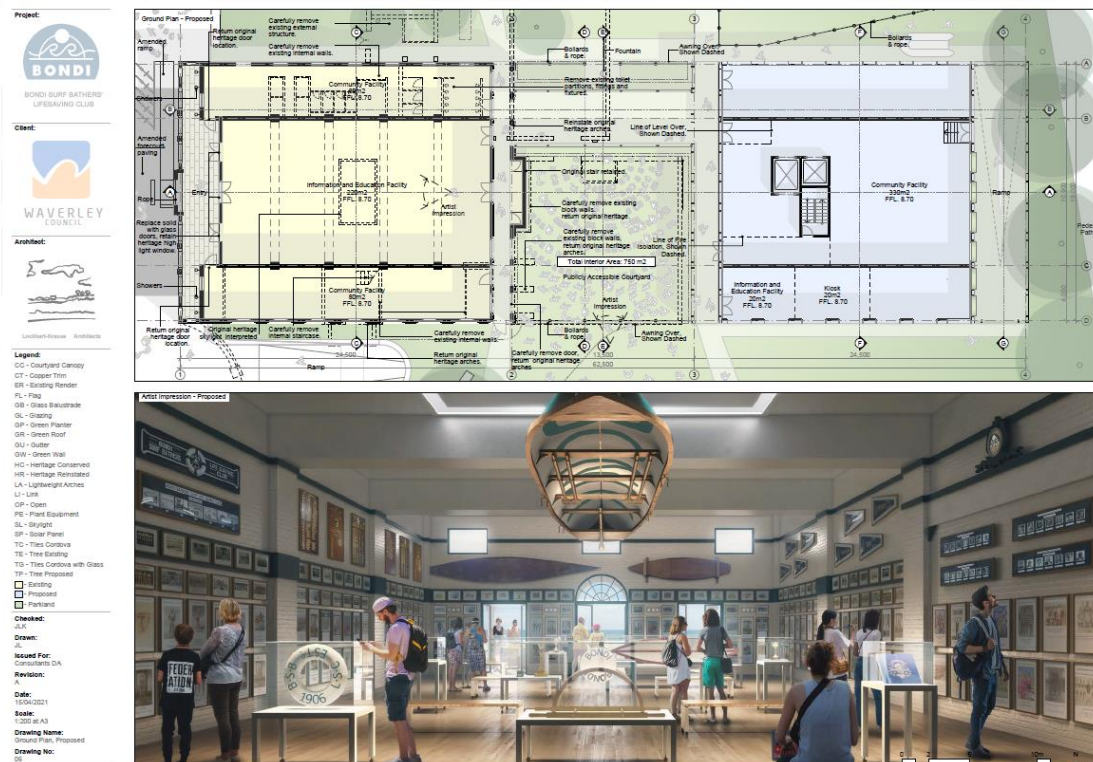


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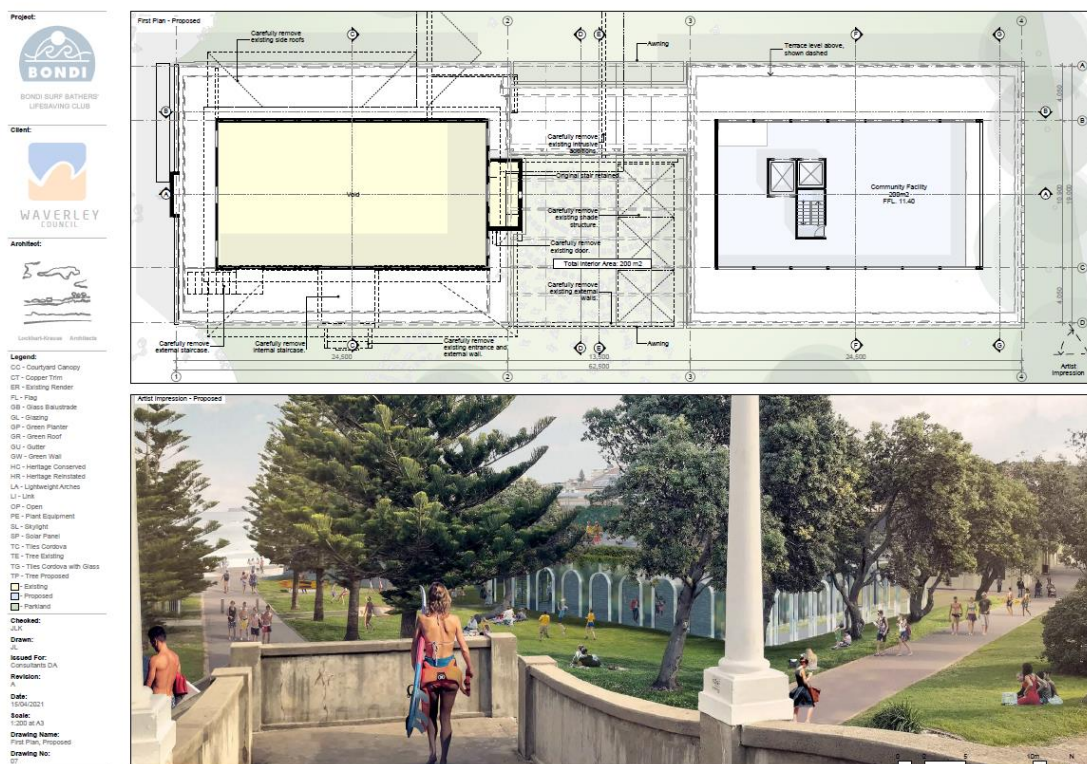




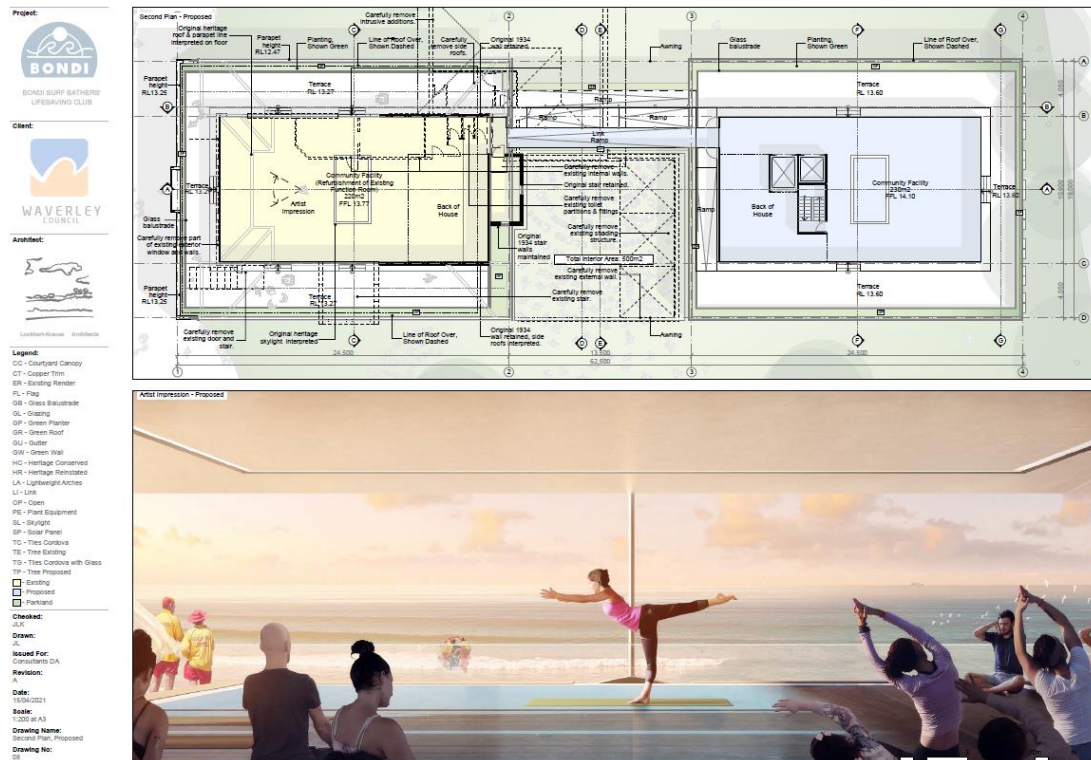
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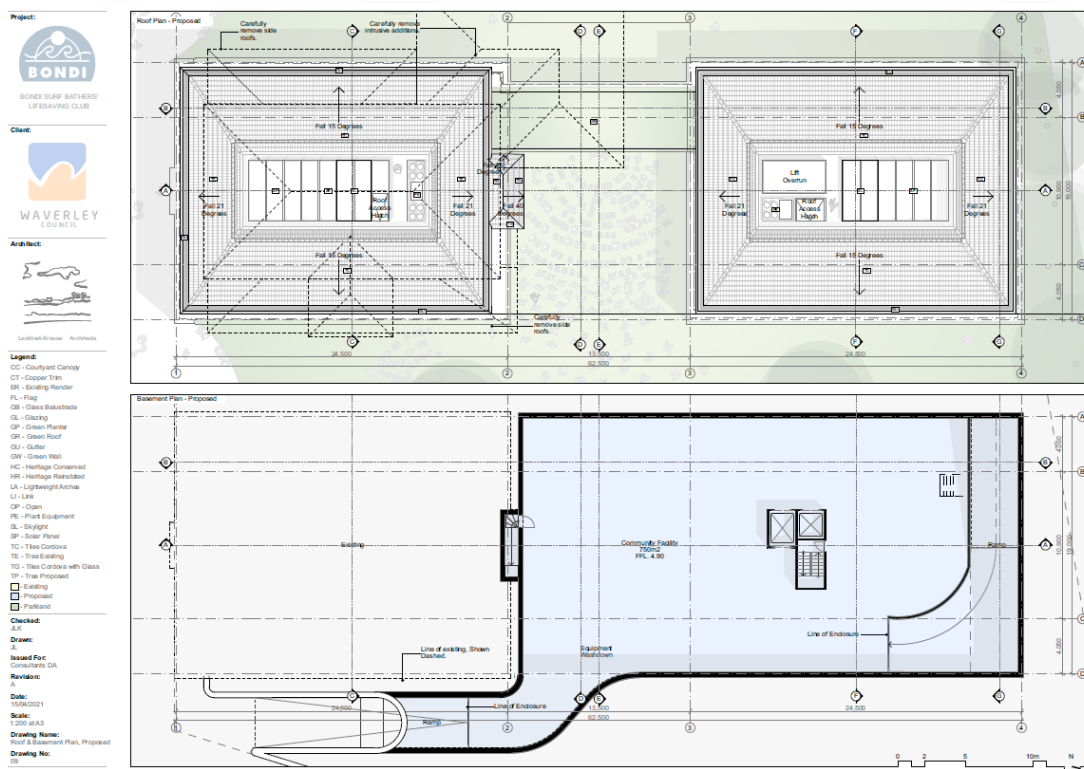
## Aboriginal archaeological impact assessment – Bondi Surf Bathers' Life Savers Club – April 2021



Aboriginal archaeological impact assessment – Bondi Surf Bathers' Life Savers Club – April 2021



## Aboriginal archaeological impact assessment – Bondi Surf Bathers' Life Savers Club – April 2021





## Aboriginal archaeological impact assessment – Bondi Surf Bathers' Life Savers Club – April 2021

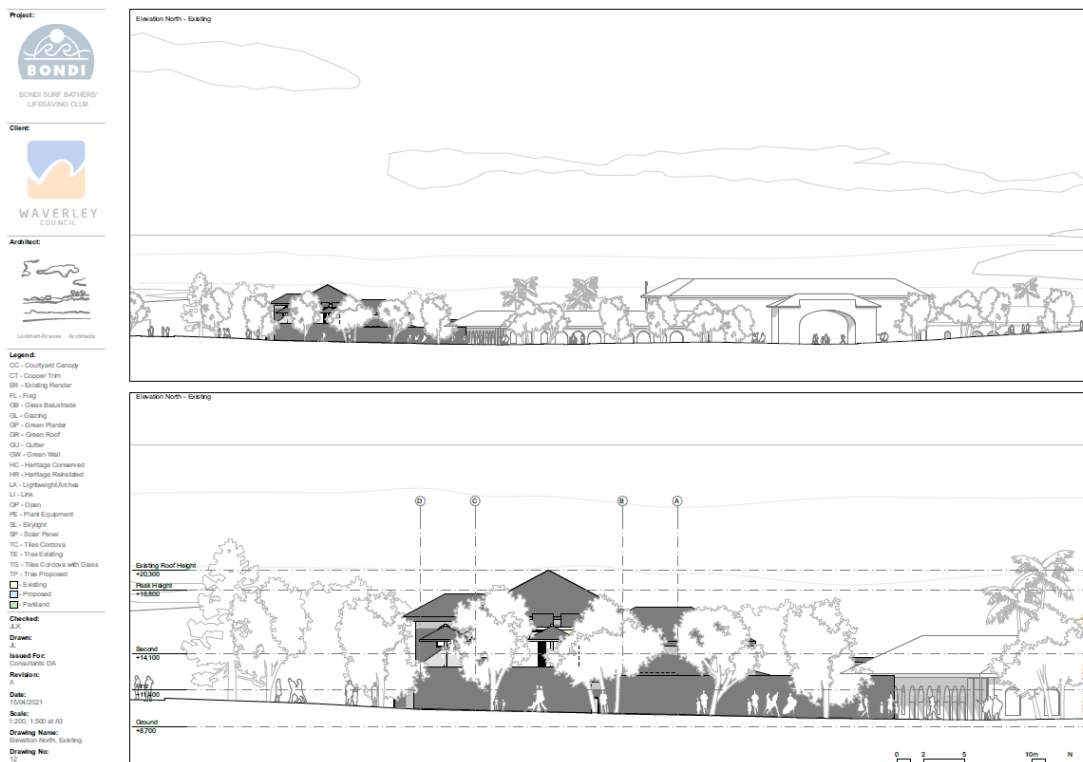




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## Aboriginal archaeological impact assessment – Bondi Surf Bathers' Life Savers Club – April 2021



## Aboriginal archaeological impact assessment – Bondi Surf Bathers' Life Savers Club – April 2021

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## Aboriginal archaeological impact assessment – Bondi Surf Bathers' Life Savers Club – April 2021



## Aboriginal archaeological impact assessment – Bondi Surf Bathers' Life Savers Club – April 2021




## Aboriginal archaeological impact assessment – Bondi Surf Bathers' Life Savers Club – April 2021






## Aboriginal archaeological impact assessment – Bondi Surf Bathers' Life Savers Club – April 2021

**Project:**




BONDI SURF BATHERS' LIFESAVING CLUB

**Client:**



WAVERLEY COUNCIL

**Architect:**



Landscape Architecture

**Legend:**

- CC - Courtyard Canopy
- CT - Copper Trim
- BR - Building Render
- PL - Flag
- GB - Glass Balustrade
- CL - Cladding
- GP - Green Planter
- GR - Green Roof
- GL - Gutter
- GW - Green Wall
- HC - Heritage Conserved
- HE - Heritage Restricted
- LA - Lightweight Architrave
- LI - Lint
- OP - Open
- PE - Plant Equipment
- SL - Skylight
- SP - Stair Panel
- TC - Tiles Corbice
- TE - Tiles Corbice with Glass
- TP - Tiles Proposed

**Checked:**

JUK

**Drawn:**

JA

**Issued For:**

Consultation DA

**Revision:**

1

**Date:**

15/04/2021

**Scale:**

1:200, 1:500 at A3

**Drawing Name:**

Elevation West Proposed

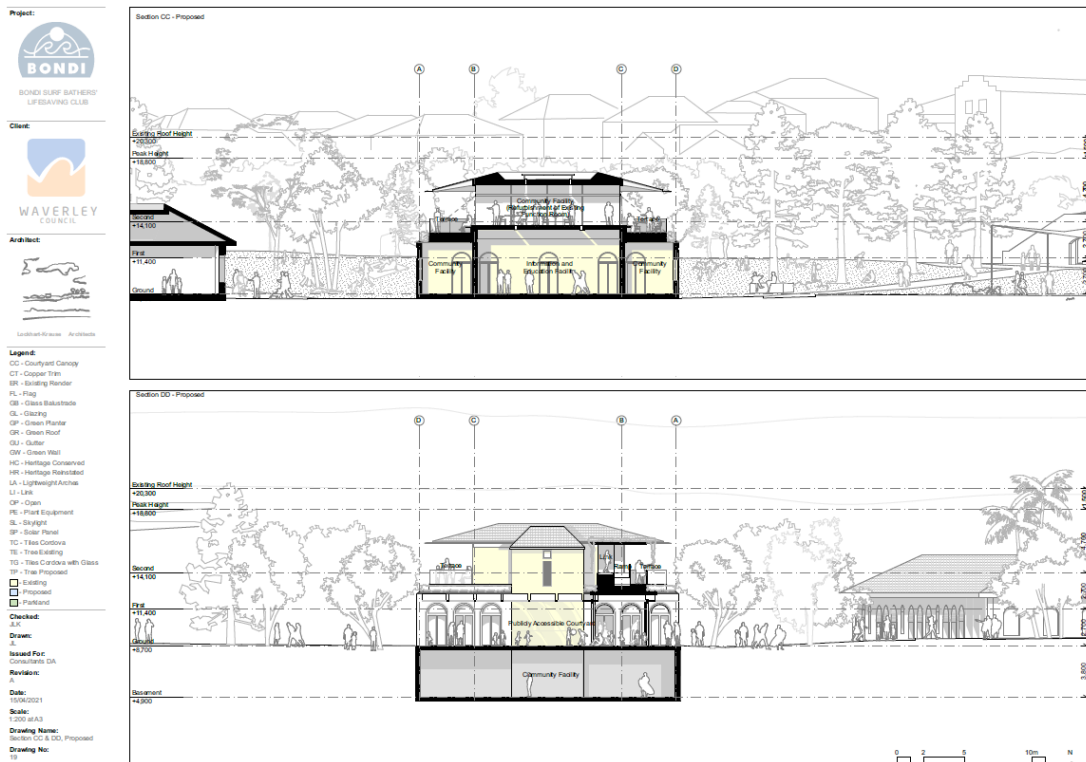
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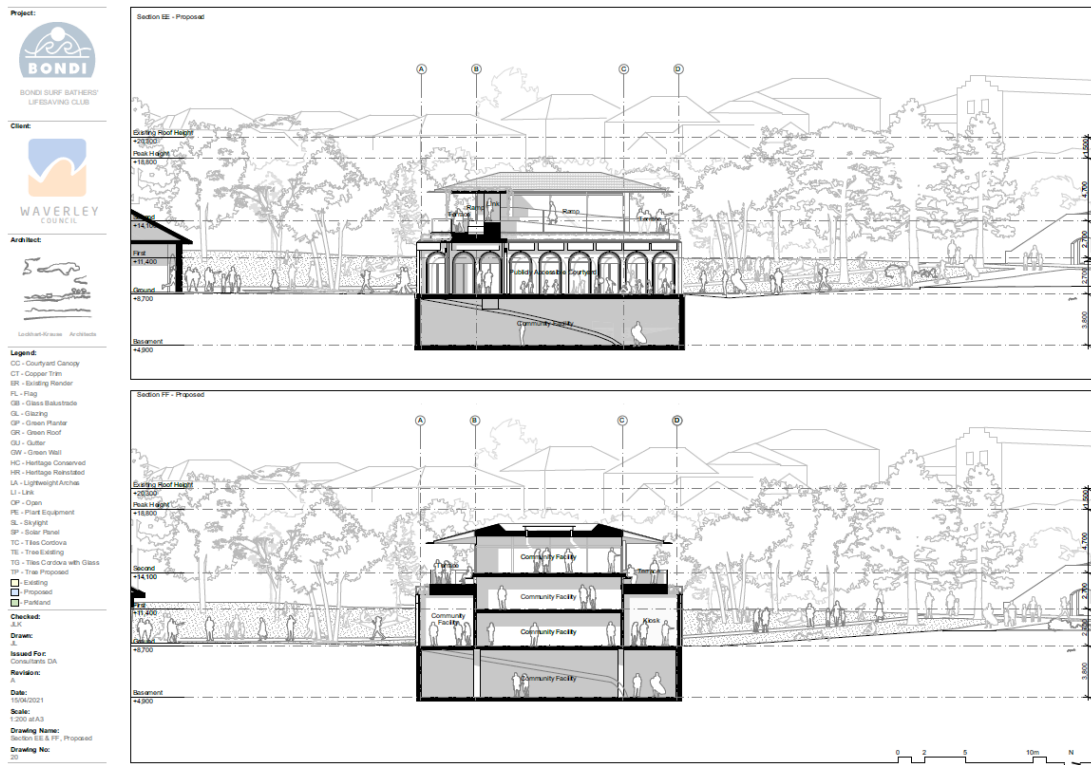




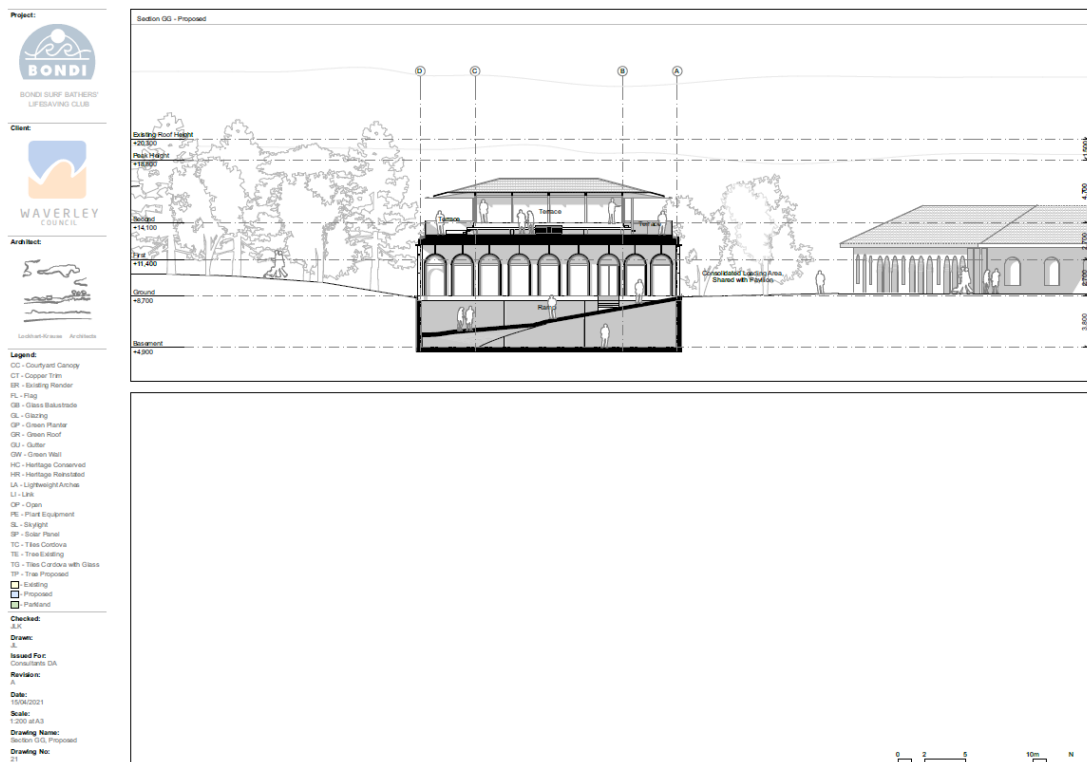
## Aboriginal archaeological impact assessment – Bondi Surf Bathers' Life Savers Club – April 2021



## Aboriginal archaeological impact assessment – Bondi Surf Bathers' Life Savers Club – April 2021



## Aboriginal archaeological impact assessment – Bondi Surf Bathers' Life Savers Club – April 2021



## Aboriginal archaeological impact assessment – Bondi Surf Bathers' Life Savers Club – April 2021



Lockhart - Krause Architects


Bondi Surf Bathers' Life Saving Club

22 - Backing Sheet, Proposed - at A3 A




**Appendix 2****AHIMS searches and cards**

☒ New recording    ☐ Additional Info



## National Parks and Wildlife Service

Box 1967, Hurstville NSW 2220. Tel: (02) 585 6444  
Standard Site Recording Form    Revised 5/88



45-6-2169

---

1:250,000 map sheet: Sydney    NPWS Code 145

250K

AMG Grid reference 340650 mE

Full reference - please include leading digits

250K

6248550 mN

5/6

Scale of map used for grid reference ☒ 25K, 50K (preferred)    ☐ 100K    ☐ 250K

Please use largest scale available

(25K) 50K, 100K map name: BOTANY BAY 9130-111-S

HEAD OFFICE USE ONLY:

NPWS Site no: 45-6-2169

Site types: open.

Accessioned by: AS    Date: 20/8/90

Data entered by: AS    Date: 20/8/90

Owner/Manager: WAVERLEY MUNICIPAL COUNCIL

Address: COUNCIL

---

Site name: BONDI BEACH    Locality/property name: NORTH BONDI

NPWS District: SYDNEY    Region: CENTRAL

Reason for investigation: ARCHAEOLOGICAL SURVEY OF METROPOLITAN SYDNEY

---

Portion no: Parish: <u>ALEXANDRIA</u>	<u>COUNTY OF CUMBERLAND</u> Photos taken? How many attached?
------------------------------------------	--------------------------------------------------------------------

---

How to get to the site (refer to permanent features, give best approach to site eg. from above, below, along cliff).  
 (Draw diagram on separate sheet.) Situated in former sandhills at North Bondi now flattened and covered by Campbell Parade. Area next to the North Bondi Surf Life Saving Club is where the site was centred.

---

Other sites in locality? YES    Site Types include: ROCK ENGRAVINGS

Are sites in NPWS Register? YES

---

Have artefacts been removed from site?    When?  
 By whom?    Deposited where?

---

Is site important to local Aborigines? UNKNOWN  
 Give contact(s) name(s) + address(es)

---

Contacted for this recording? NO  
 (Attach additional information separately) If not, why not?

---

Verbal/written reference sources (including full title of accompanying report). Personal Investigation    NPWS Report Catalogue #  
and attached newspaper and magazine clippings which are held in the Local History Section of Waverley Municipal Library

---

Checklist: surface visibility, damage/disturbance/ threat to site	Condition of site: <u>DESTROYED - by road building and commercial development however some stone flakes etc may still appear from time to time during future construction etc.</u>
----------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

---

Recommendations for management & protection (attach separate sheet if necessary): Advise Waverley Municipal Council and visit area during future roadworks or building construction to recover any excavated artifacts.

---

Site recorded by: MICHAEL GUIDER    Date: 16th JULY 1990  
 Address/institution: ROYAL EXCHANGE  
P.O. BOX R32 SYDNEY 2000

X

SITE POSITION & ENVIRONMENT		OFFICE USE ONLY: NPWS site no: 45-6-2169
1. Land form a. beach/hill slope/ridge top, etc:		b. site aspect: c. slope:
d. mark on diagram provided or on your own sketch the position of the site:		e. Describe briefly:
f. Local rock type:		g. Land use/effect:
2. Distance from drinking water:		Source:
3 Resource Zone associated with site (estuarine, riverine, forest etc):		
4 Vegetation:		
5. Edible plants noted:		
6 Faunal resources (include shellfish):		
7 Other exploitable resources (river pebbles, ochre, etc):		
Site type <b>Aboriginal Workshop</b>	<b>DESCRIPTION OF SITE &amp; CONTENTS.</b> Note state of preservation of site & contents. Do NOT dig, disturb, damage site or contents.	
<b>CHECKLIST TO HELP:</b> length, width, depth, height of site, shelter, deposit, structure, element eg. tree scar, grooves in rock. <b>DEPOSIT:</b> colour, texture, estimated depth, stratigraphy, contents-shell, bone, stone, charcoal, density & distribution of these, stone types, artefact types. <b>ART:</b> area of surface decorated, motifs, colours, wet, dry pigment, technique of engraving, no. of figures, sizes, patination. <b>BURIALS:</b> number & condition of bone, position, age, sex, associated artefacts. <b>TREES:</b> number, alive, dead, likely age, scar shape, position, size, patterns, axe marks, regrowth <b>QUARRIES:</b> rock type, debris, recognisable artefacts, percentage quarried. <b>OTHER SITES EG.</b> structures (fish traps, stone arrangements, bora rings, mia mias), mythological sites, rock holes, engraved groove channels, contact sites (missions massacres cemeteries) as appropriate	<p>In 1900 a series of gales uncovered an old land surface which was littered with thousands of stone flakes and other tools. Mr. Whitelegge made the discovery and The Australian Museum has an extensive collection of these artifacts. Apparently the whole back section of the beach was covered in tons of stone and this must have taken many thousands of years to accumulate.</p> <p>Artifacts collected included tomahawks, grindstones, a nose ornament, knives, scrapers, graters, drills and spear points.</p> <p>Unfortunately most of this site has now been destroyed however artifacts will continue to resurface during disturbance of sand surrounding the beach and where ever possible these should be collected and handed to the museum for additions to their collection or to another research establishment approved by National Parks and Wildlife Service. Any future roadworks or beachside construction should be monitored by a NPWS Archaeologist so that these artifacts may be recovered.</p> <p>Attach sketches etc. eg. plan &amp; section of shelter, show relation between site contents, indicate north, show scale.          Attach annotated photos (stereo where useful) showing scale, particularly for art sites.</p>	

This site update form was produced by Paul Irish of Dominic Steele Consulting Archaeology (DSCA) in October 2008, based upon an Aboriginal Heritage Planning study undertaken by DSCA for Waverley Council of all lands within Waverley Local Government Area as documented in the following report:

- DSCA 2008. *Waverley Aboriginal Cultural Heritage Study* (Report to Waverley Council)

It involved a review of all existing AHIMS site records within the study area, going back to original survey reports and associated plans, examining all site cards, and groundtruthing some sites. This was then plotted on council GIS to produce a database which is summarised below. In general, most coordinates were previously incorrect and have been revised and are MORE accurate but not necessarily completely exact. This additional record should therefore be seen as the most updated information for this site as of 2008. It may also include additional historical records of the site (where available) and photographs and maps. The study report should be consulted for additional information.

<b>DECC AHIMS Site #</b>	45-6-2169
<b>Name</b>	Bondi Beach
<b>Site Type</b>	Open Campsite & Burial/s
<b>AMG Map Zone</b>	56
<b>1:25000 Sheet</b>	Bondi
<b>REVISED AMG Easting</b>	340473
<b>REVISED AMG Northing</b>	6248475
<b>Location</b>	Situated in former sandhills at North Bondi and now flattened and covered by Campbell Parade. Possibly extended along whole beach. Guider's recording of site being next to the North Bondi Surf Life Saving Club is based upon Plugshell's 1924 reminiscences of what was visible to him after reading of the site in Etheridge and Whitelegge's article in 1907, ie at least 17 years after that recording.
<b>Owner/Manager</b>	Waverley Council, Private Land
<b>LALC</b>	LPLALC
<b>LGA</b>	Waverley
<b>Recorder/s</b>	Etheridge & Whitelegge
<b>Date Of Recording</b>	1900
<b>Reason For Recording</b>	Accidental discovery and subsequent collection
<b>Type Of Recording</b>	Accidental Discovery
<b>Subsequent Recording</b>	"Plugshell" 1924 (private survey), Guider 1990 (private survey)
<b>Detailed Description</b>	A gale in 1900 uncovered an old land surface under the existing dunes at the back of Bondi Beach. This land surface was strewn with vast quantities of stone artefacts, collected by Etheridge and Whitelegge and many now housed in the Australian Museum. After reading their article at or after 1907, local resident "Plugshell" visited the site and found "traces, now covered and levelled off, of the "workshops" mentioned, alongside the road about 100 yards to the right rear of the spot where the North Bondi Surf Sheds are built, but I doubt that any indication could now be picked up". Artefacts were also collected from the "Bondi Sandhills" by Liversidge in the 1870s (see scanned images). Early Bondi resident Thomas O'Brien also mentions an occasion when an "easterly gale washed away the sand from the bay frontage, probably to an extent it had never done before, because it unearthed an aboriginal skull and several aboriginal tomohawks" (O'Brien 1923:364). The site was registered by Michael Guider in 1990 not on the basis of any observed physical evidence at that time but on Etheridge and Whitelegge's article and Plugshell's recollections - hence he describes the site as centred on the North Bondi Lifesavers whereas this was simply where artefacts were still

	<p>visible at least 17 years after Etheridge and Whitelegge first documented the site. Etheridge describes as follows "A very remarkable discovery was made by Mr T Whitelegge in the early part of the year, along the local sea-board. A series of heavy gales displaced the sand hummocks at Bondi and Maroubra Bays, exposing what appeared to be an old land surface.... revealing what we had never before imagined to exist, a series of aboriginal 'workshops' where for generations the blacks of the Port Jackson District must have manufactured chips, splinters and points for insertion along the distal margins of their spears and for other purposes. The old land surface at Bondi, as I saw it...was covered with thousands of these chips, some of them exquisitely made, with core pieces, chippers and rubbers. The lithological character of the material used was very varied, from pure white crystalline quartz, opaque amorphous quartz, every variety of chert and quartzite, to rocks of a metamorphic character. It is quite clear that the siliceous material derived in the great measure from the surrounding Hawkesbury Sandstone, but others were probably obtained from distant sources. I regard this as one of the most important ethnological discoveries made in New South Wales for many years'. 'The 'workshops' at Bondi were far more extensive than those at Maroubra, the whole length of the back of the beach was more or less covered with tons of stones, all of which had been taken there and put to some use. In the centre of the beach there was a kind of delta upon which the coarser materials were deposited, the sand having been washed on this area; thousands of implements, which had evidently been used, were found, and chips and flakes were few and far between. For many months the original ground at Maroubra, and also the more extended area at Bondi, yielded an abundance of implements and at each visit we invariably returned with as much as we could carry. Unfortunately the new road access to Bondi has now covered most of the sites that afforded the best ground for collecting'. 'There is ample evidence that many of the sand dunes were at one time much higher than they are now, and also that in some parts they have been covered with vegetation interspersed with native camping grounds, upon which vast quantities of shells were deposited; in course of time the vegetation was covered by sand drifts, other shell heaps formed at the summit, and the whole again buried. The period of time required for these various changes must have been very great, and it has probably required an even greater lapse of time to produce the present condition...Many instances proving the correctness of the views as above related may be seen on the coast at Maroubra and Bondi'.</p> <p>The distinctive 'backed' points collected at Bondi Beach at the turn of the century have since become the type-name (Bondi point) for an artefact type that is found in archaeological sites throughout south-eastern Australia dating from the period spanning approximately 6,000 years to 1,800 years before present. However, what these artefacts may have been used for is the subject of considerable debate. Interpretations about the use of Bondi points range from them being utilised as spear barbs for hunting spears, as small cutting implements (possibly hand-held), as hafted knives or awls (needles or points) used for working skins. It is likely that they were used in the past for a wide variety of different purposes.</p>
<b>Site Condition</b>	Assessed as destroyed (1990) though not clear what may remain beneath existing roadways and parks. It seems possible if not likely that some portions of the site may survive, especially as the full extent may not have been exposed in 1900.
<b>Date Of Last Condition Assessment</b>	2008
<b>Associated Reports</b>	Etheridge & Whitelegge 1907, Etheridge 1900, Dowd 1959:293, Plugshell 1924, O'Brien 1923:364
<b>DECC Report No</b>	n/a



carving was recorded in 'Campbell's Index' about 1890. The carving is now covered with soil, and many searches have failed to find it. Some hundreds of yards south of the ritual grounds and half way between Bondi Beach and Ben Buckler point, I, in 1951, excavated the soil from what is probably the engraving of a whale 9 feet long. Portion of the cliff edge has, ages past, broken away, taking with it part of the lower side of the whale. The engraved rock is next to the premises of a fisherman who has lived there for 40 years, and has not known of the carving's existence. Nearby at a slightly lower level on the pathway joining the upper and lower rock shelves is the deep engraving of a turtle. . . . A short distance south on a little higher level there is a shield, also an eel, deeply engraved in the rock shelf.

"I was commissioned by the Waverley Municipal Council in 1951 to retouch engravings with a preservative against the weather. At the same time I brought to its notice the need to divert the pathway around the turtle and to put up some protective fence around the carvings. This has since been carried out."

#### ABORIGINAL WORKSHOPS AT BONDI

In the records of the Australian Museum of 1907, there is an excellent article by Mr. Etheridge, the Curator. He refers to the above subject in a letter, dated December 12, 1924, to Mr. W. L. Johnston of Porter Street, Waverley, as follows:—

"A very remarkable discovery was made by Mr. T. Whitelegge in the early part of 1900 along the local seaboard. A series of heavy gales displayed the sand hummocks at Bondi . . . exposing what appeared to be an old land surface. On the latter Mr. Whitelegge found revealed what we had never before imagined to exist—a series of aboriginal workshops where for generations the blacks of Port Jackson district must have manufactured chips, splinters and points for insertion along the disal margins of their spears and for other purposes. The old land surface at Bondi was covered with thousands of these chips, some of them exquisitely made, with core pieces, shippers and rubbers. The lithological character of the material used was very varied, from pure white crystal-line quartz, opaque amorphous quartz, every variety of chert, and quartzite, to rocks of metamorphic character. It is quite clear that the saliceous material was derived in a great measure from the surrounding Hawkesbury sandstone, but the others were probably obtained from distant sources."

Further, the article continues: "After a thorough survey of the ground, all the smaller

instruments available were collected, the larger heavy instruments being gathered and duly interred, to be attended to on some future occasion. The weapons collected were very valuable, including tomahawks, grindstones, a nose ornament, knives, scrapers, gravers, drills and spear points such as were used for fighting, of death spears, and, lastly, a very peculiar lancet like a surgical knife or scarifier. The 'workshops' at Bondi were very extensive, the whole length of the back of the beach being more or less covered with tons of stones. . . . Unfortunately the new road across Bondi has now covered most of the sites that offered the best ground for collecting."

Support to this view that the blacks made and used such crude instruments is given by Professor B. Smyth in his "Aborigines of Victoria, Vol. II, 1878, p. 520," wherein he wrote:—

"The Western Australians use small splinters of quartz for making the deep, long cuts which may be seen on almost every native, both men and women, across the arms. With a similar fragment stuck to the end of a stick, they dress and cut their kangaroo skins in preparing them for use as cloaks. They also stick thin splinters of quartz—broken by their teeth—to the side of a short stick to serve as a saw."

It is hard to realize that hundreds of thousands of persons who visit and enjoy this "Playground of the Pacific" at Bondi are treading on the site of the primitive aboriginal workshops of days long gone by.

#### BIG GUN ON BEN BUCKLER

As part of the Harbour and Coast Defences in 1893, the delivery at Ben Buckler, Bondi, of the first 22-ton breech-loading guns intended for the defence of the colony from invasion was effected in 1893. This event was reported in the "Sydney Mail" in November, 1893, p. 818, as follows:—

"Owing to the steepness and bad condition of the roads, the removal of the gun from Victoria Barracks was no easy task. Thirty-five (35) horses were employed and more than once the wheels of the trolley sank into the ground and the whole affair had to be helped out with cranes. It was taken along Old South Head Road towards the light house and then back towards Ben Buckler by a track leading up the rocks in a zig-zag direction. Here most of the horses were dispensed with, and the trolley was got along foot by foot by placing iron plates in front of the wheels over which it was dragged by horses, the plates were then again moved to the front and the same process repeated. . . . In this way Ben Buckler was reached in about three weeks or a month from Victoria Barracks. McMahon and Co. had the contract for the removal of the gun from the Barracks to the Fort."



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regular, and produces a hard stiff and inflexible envelope for the body-trunk, two feet seven inches in height, with a girth of about four feet. The front of the ventro-thoracic shield is ornamented by a median and vertical line of black diamond-shaped figures, with three similar lines on the inside and outside of the tergal shield. Edge-Partington figures<sup>12</sup> a similar corselet with three rows on the ventro-thoracic shield. The tergal shield is high and upstanding, without any trace of a continuous circular collar as represented by Schmeltz and Krause,<sup>13</sup> in another corselet from the same islands: the latter is, however, similarly ornamented to that presented by Mr. Black. The overlap is at the left side, and the envelope appears to be kept in place simply by its own rigidity and curvature, without the aid of the lacing in front sometimes met with in these investitures.<sup>14</sup> The sleeves, separate from the corselet, are in one, with a double neck piece, through which the head is protruded. Each sleeve is terminated by a guard for the back of the hand, and this is retained in position by a thumb-loop. The knitting is large and loose, rendering the sleeves pliable, quite different from the rigid condition of the corselet. The entire length of the whole is five feet, the sleeves at about the elbows are six and three-quarter inches wide, and the neck pieces eight inches wide.

Another corselet (Plate xxii.), presented by Mr. E. Twynam, is more elaborate in every way. The ventro-thoracic shield bears two cross bars, a clavicular and thoracic, with between them a row of five elongated diamond-shaped figures, and below the thoracic bar, the venter carries two similar rows one above the other. The inside of the tergal shield is transversely divided by four cross-bars into five panels or spaces, the three upper panels containing seven diamond-shaped figures in each, the central narrow panel bears nine such, and the lumbar or bottom broad space contains three transverse rows of nine similar figures; the outside of the tergal shield, which is of the high square shape without collar, is similarly ornamented. From the arm-holes downwards the cuirass is open at both sides, with an overlap of the tergal shield forwards over the ventro-thoracic, the margins of the former having a coir loop through which pass similar strings made fast on the centre of the venter. This is precisely as seen in Webster's illustration already quoted. The height is two feet ten inches, and the girth four feet.

A very remarkable discovery was made by Mr. T. Whitelegge in the early part of the year, along the local sea-board. A series of heavy gales displaced the sand hummocks at Bondi and Maroubra

<sup>12</sup> Edge-Partington—Ethnol. Album, 1st Series, pt. 1, pl. clxx.

<sup>13</sup> Schmeltz and Krause—Eth.-Anthrop. Abth. Mus. Godeffroy, 1881, pl. xxviii., f. 2.

<sup>14</sup> Webster—Illus. Cat., 1897, 14, p. 12, f. 139.

Bays, Dee-Why Lagoon, etc., exposing what appeared to be the old land surface. On the latter Mr. Whitelegge found revealed, what we had never before imagined to exist, a series of Aboriginal "workshops," where for generations the Blacks of the Port Jackson District must have manufactured chips, splinters, and points for insertion along the distal margins of their spears and other purposes. The old land surface at Bondi, as I saw it, in company with the discoverer, was covered with thousands of these chips, some of them exquisitely made, with core pieces, chippers and rubbers. The lithological character of the material used was very varied, from pure white crystalline quartz, opaque amorphous quartz, every variety of chert, and quartzite to rocks of a metamorphic character. It is quite clear that the siliceous material was derived in a great measure from the surrounding Hawkesbury Sandstone, but the others were probably obtained from distant sources. I regard this as one of the most important Ethnological discoveries made in New South Wales for many years.

The presentation of Cáva (Ava, Kava, or Yaquona) as a gift is referred to by Mariner<sup>15</sup> in his interesting account of the ceremonious preparation of this beverage by the Tongans. The same practice seems to have existed in Fiji, for Seemann says,<sup>16</sup> "Roots of Yaquona are presented to visitors as tokens of good will, and to the temple as offerings." To Mr. James Green, of Tonga, we are indebted for an example of the root of *Piper methysticum*, Forst., in gift or presentation form (Plate xxiii, fig. 1). It consists of the leaf-stem of a narrow-leaved palm of which the mid-ribs of the pinnules are retained, and the wings stripped off. These mid-ribs then stand out as a series of skewers, and on them the pieces of Cáva root, cut into convenient sizes, are strung, each piece having a hole bored through it. The skewer-like mid-ribs are then pressed up parallel to the leafstem, and wound round with a tape of the inner bark of the *Hibiscus*. The entire length of this pleasing object is five and three-quarter feet.

Our admirable collection of Canoes received an addition from the Solomon Islands at the hands of a valued benefactor, already mentioned, Mr. P. G. Black. The Canoe is fourteen feet nine inches in length, with a beam of eighteen inches at the centre, and a remarkably flat bottom, except immediately fore and aft. It is built of rather narrow boards, stitched together with rattan, and the seams served with some kind of gum cement. The short fore and aft prows are decorated each with two tufts of feathers, the upper tufts apparently composed of those of the Frigate-bird, and the lower of Cockatoos, white in colour. The locality is Ngela (New Florida) Island.

<sup>15</sup> Mariner—Acc. Natives Tonga Islands, ii., 1817, p. 201.

<sup>16</sup> Seemann—Viti, 1862, p. 326.

## ABORIGINAL WORKSHOPS ON THE COAST OF NEW SOUTH WALES, AND THEIR CONTENTS.

By R. ETHERIDGE, JUNR., Curator, and THOMAS WHITELEGGE,  
Senior Zoologist.

(Plates xlii.-xlv., and figs. 39-43).

### I.—INTRODUCTION.

A preliminary account of this subject appeared in the Curator's Report for 1900.<sup>1</sup> The report reads as follows:—"A very remarkable discovery was made by Mr. T. Whitelegge in the early part of the year, along the local sea-board. A series of heavy gales displaced the sand hummocks at Bondi and Maroubra Bays, Dee Why Lagoon, etc., exposing what appeared to be an old land surface. On the latter Mr. Whitelegge found revealed, what we had never before imagined to exist, a series of aboriginal 'workshops' where for generations the blacks of the Port Jackson District must have manufactured chips, splinters and points for insertion along the distal margins of their spears and for other purposes. The old land surface at Bondi, as I saw it, in company with the discoverer, was covered with thousands of these chips, some of them exquisitely made, with core pieces, chippers and rubbers. The lithological character of the material used was very varied, from pure white crystalline quartz, opaque amorphous quartz, every variety of chert and quartzite, to rocks of a metamorphic character. It is quite clear that the siliceous material was derived in a great measure from the surrounding Hawkesbury Sandstone, but the others were probably obtained from distant sources. I regard this as one of the most important ethnological discoveries made in New South Wales for many years."

Mr. Walter Howchin<sup>2</sup> appears to have discovered a large number of small weapons and implements of various kinds on the South Australian sea-board, but there is no indication as to whether these stone implements were found scattered over the surface generally or derived from "workshops." The instruments are

<sup>1</sup> Etheridge—*Rec. Austr. Mus.*, iv., 4, 1900, pp. 148 and 165.

<sup>2</sup> Howchin—*Proc. Austr. Assoc. Adv. Sci.*, v., 1893, p. 522.



enumerated as follows:—(1) Stone points; (2) Flakes (knives), in seven varieties of single-edged, ridged, flat and polygonal, lanceolate, broad, serrated and trimmed; (3) Spearheads of a type which seems to be restricted to a narrow coastal belt; (4) Chisels; (5) Gouges; (6) Awls; (7) Scrapers, divided into eleven distinct varieties; (8) Hammers; (9) Anvils; (10) Fabricators; (11) Cores.

Mr. Brough Smyth<sup>2</sup> gave the following account as to the use of stone implements:—"The Western Australians use small splinters of quartz for making the long deep cuts which may be seen on almost every native—both men and women—across the breast and arms, with a similar fragment stuck to the end of a stick they dress and cut their kangaroo skins in preparing them for use as cloaks. They also stick thin splinters of quartz, broken by their teeth, to the side of a short stick to serve as a saw."

## II.—DESCRIPTION OF LOCALITIES.

During the early part of the year 1899, in wandering over the northern end of the sandhills at Maroubra, the attention of one of us (T.W.) was attracted by sundry flint chips. Having found many flints of various kinds on the Lancashire and Yorkshire moorlands, these flakes were at once recognised as having been made by man. On reaching the summit of the sandhill, a strange feature presented itself, instead of the usual bare waste of sand, the whole surface was studded with butts of *Banksia* trees two or three feet high, and one or two feet in diameter. The intervening spaces were covered with a scrubby growth, consisting of the stems and roots of various plants, many of which were standing *Pandanus*-like, having the roots covered with lime from a quarter to half-an-inch thick. Whilst the interiors of the lime tubes were lined with a thin cylinder of bark, in other parts the bark cylinders were standing alone without the calcareous envelope. The whole area appeared like a miniature skeleton forest, of black and white stems and roots.

The ground between was strewn with thousands of stones that had been used by the Aborigines for some purpose or other, and had all been taken to the top of the sandhills, many of the stones being quite foreign to the district. Here would be found a patch of black flint chips about a yard in diameter, there another of red or yellow jasper, just as if the native artist in stone-working

<sup>2</sup> Brough Smyth—*Aborigines of Victoria*, ii., 1878, app., p. 520.

## ABORIGINAL WORKSHOPS—ETHERIDGE AND WHITELEGGE. 235

had only left the ground a few minutes before. In fact this was an aboriginal "workshop" from which the workers may have disappeared hundreds of years ago:

After a thorough survey of the ground all the smaller instruments available were carefully collected, the larger heavy instruments being gathered and duly interred to be attended to on some future occasion. The weapons collected were very valuable, including tomahawks, grindstones, a nose ornament, knives, scrapers, gravers, drills, and spear points such as were used for fighting or "death" spears, and lastly a very peculiar lancet-like surgical knife or scarificator. The latter is one of the most interesting of the finds inasmuch as instruments of the same shape have been found in America, India, England, and Ireland, and in the latter country they were met with on the tops of the sandhills just as we saw them at Maroubra and Bondi.

The "workshops" at Bondi were far more extensive than those at Maroubra, the whole length of the back of the beach was more or less covered with tons of stones, all of which had been taken there and put to some use. In the centre of the beach there was a kind of delta upon which the coarser materials were deposited, the sand having been washed away on this area; thousands of implements, which had evidently been used, were found, and chips or flakes were few and far between. For many months the original ground at Maroubra, and also the more extended area at Bondi, yielded an abundance of implements and at each visit we invariably returned with as much as we could carry. Unfortunately the new road across Bondi has now covered most of the sites that afforded the best ground for collecting. Still there are a few patches left at Bondi, which after certain gales would be well worth visiting; the same remarks apply equally well to Maroubra and other places.

The workshops exposed at Rocklily, Dee Why, and other places north of Manly, are very small and patchy, the northern end of Curl Curl Beach is generally good ground to collect on after a strong north-east wind, but otherwise there is scarcely anything but sand. During our researches one of us (T.W.) visited Newcastle, but with little result; the most likely place on this extensive beach would be the end of Stockton Beach towards Port Stephens.

A few stone implements were found at Botany Bay and at Kurnell, but there does not appear to be any extensive accumulations at these places. The northern end of Cronulla Beach is



near Farnham in Surrey, England. Levey fell on hard times and in 1830, Waverley House and several lots of land were put up and sold by the sheriff at the suit of his creditors. The house was demolished in 1904.

### HISTORY

A series of storms in 1924 revealed a workshop where the Aborigines chipped rocks for their spear heads, knives, and axes. There are some rock carvings of fish at Ben Buckler and a ceremonial rock of the Bondi Biddigal tribe on Williams Park Golf Links. Secret rituals and corroborees were held there about the early 1800s.

There are some strange rock carvings of ships at North Bondi between the ventilators of the sewer outlet. These were once claimed to be the work of Spanish deserters from the *Santa Isabel* in 1595 but, unfortunately there is no factual basis for this intriguing story.

The first European to see this part of the coast was Captain Cook as he sailed past this way when he proceeded along the coast in three open boats from Botany Bay to Port Jackson on 21 January, 1770.

About 100 hectares of land covering most of the present-day Bondi Beach area were granted to William Roberts in 1809. It was said that the grant was a reward for his part in making the South Head Road. Roberts established a cattle farm in what is now the main business area, but it is doubtful if he ever actually lived at Bondi.

In 1851, the land was bought from Roberts' heirs by Edward Smith Hall, the proprietor of the *Sydney Monitor* newspaper. Hall's son-in-law, Francis O'Brien, had the land sub-divided and put up a number of lots for sale. In 1854, Surveyor-General Mitchell became concerned that the public had no access to Bondi Beach, and negotiated the acquisition of a public reserve about 30 metres above high water mark with access from Old South Head Road, for the 'health and recreation of the inhabitants of Sydney'. It was the beginning of Sydney's love affair with Bondi Beach, which now attracts up to 50 000 surfers carrying transistor radios on a fine summer's day.

The first white surfer on any Sydney beach to be recorded was a young man by the name of Allen, who died in the surf in 1818. A. R. Stone, one of Bondi's surfing pioneers, recalled that in about 1874, he was with a party of fellows watching some Aborigines surfing off Ben Buckler. He is credited with the following remarks:

'Said one of the boys, "If the sharks do not touch them, what about us?" So you may say that was the start of surfing at Bondi.'

There have, in fact, been three recorded attacks — one in 1928 and two in 1929. Meshing, plus vigilant shark spotting, and a shark alarm have kept Bondi free of further attacks since that time.

The building of the Bondi sea baths added to the beach's attraction in 1886. The extension of the tramline in 1894, first for steam and then for electric trams, brought the public rattling down the hill. Trams were finally phased out in Sydney in 1961, and the expression, 'shot through like a Bondi tram' is no longer relevant.

In the early 1900s, bathing was prohibited between 9 a.m. and 8 p.m. In 1902 two locals, Frank McElhone and the Reverend S. McKeown, deliberately flouted the law by venturing into the surf at high noon. The police, faced with a large crowd of onlookers, refused to act, and from then on sea bathing was allowed at any time of the day without risk of prosecution.

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*Kennedy, Brian and Barbara. Sydney  
and suburbs. A history & description  
French's Forest, NSW. Reed, 1982*

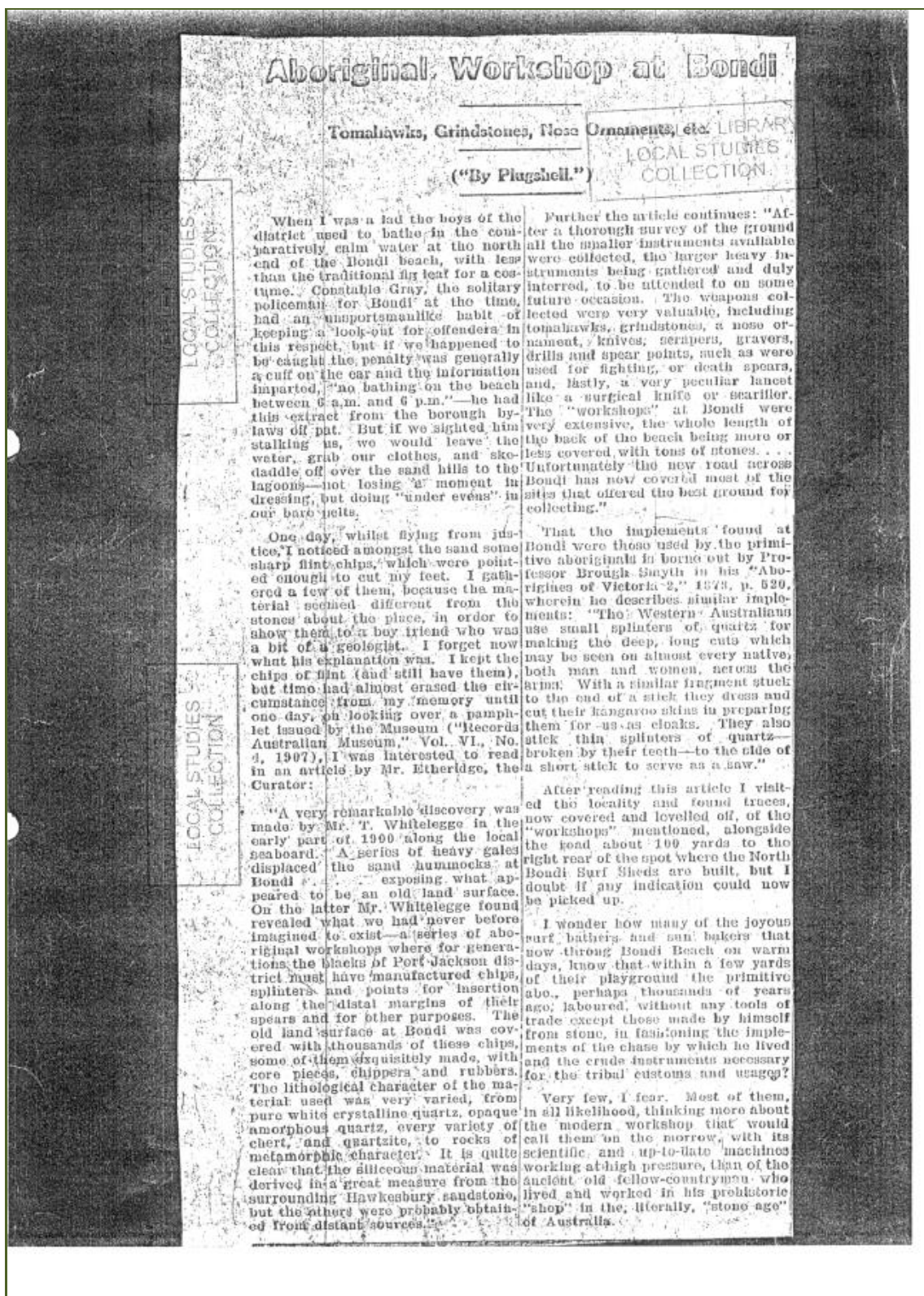
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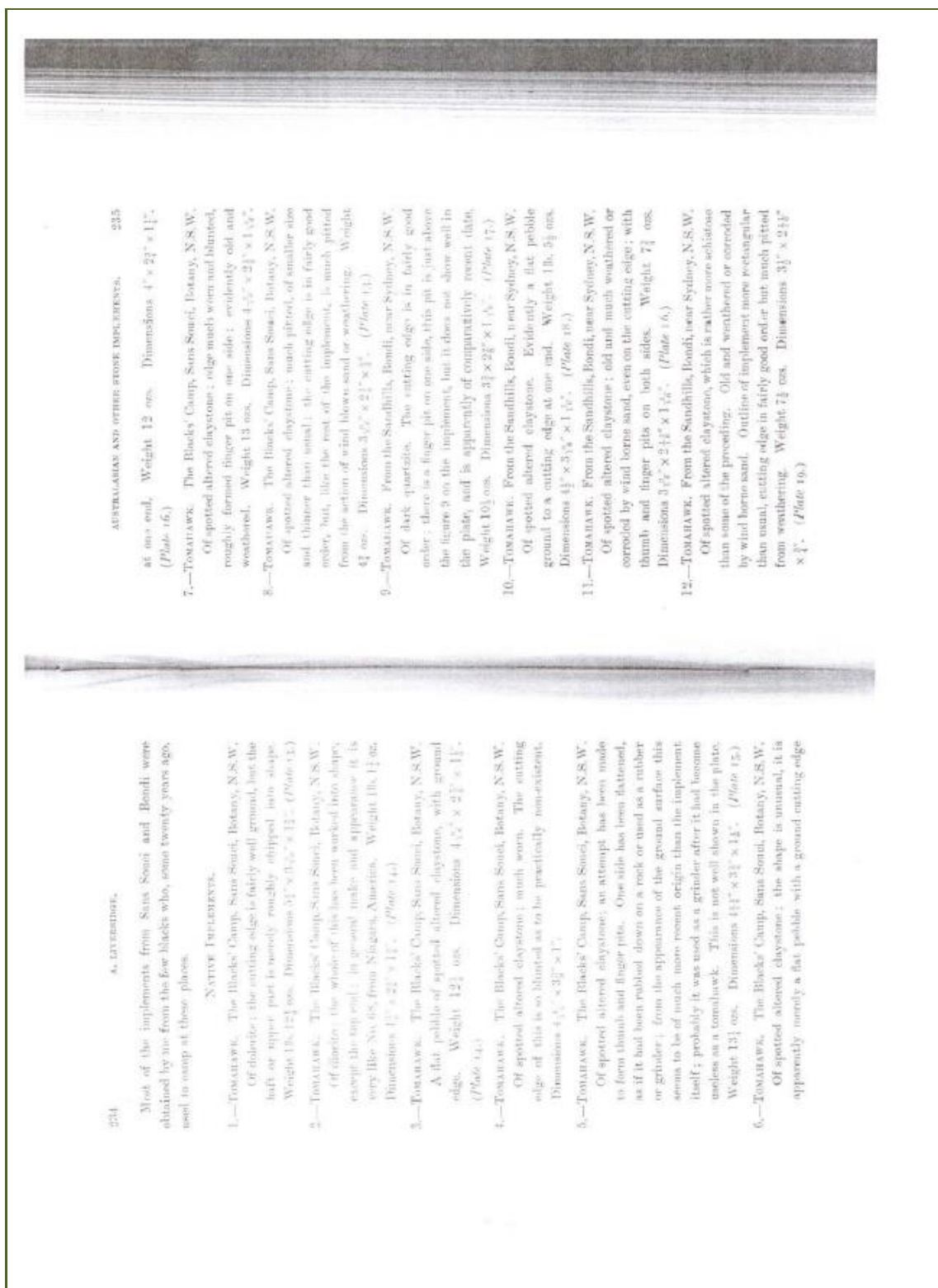
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# AUSTRALIAN AND OTHER STONE IMPLEMENTS.

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at one end. Weight 12 ozs. Dimensions  $4\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$ . (Plate 16.)

7.—TOMAHAWK. The Blacks' Camp, Sans Souci, Botany, N.S.W. Of spotted altered claystone; edge much worn and blunted, roughly formed finger pit on one side; evidently old and weathered. Weight 13 ozs. Dimensions  $4\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$ .

8.—TOMAHAWK. The Blacks' Camp, Sans Souci, Botany, N.S.W. Of spotted altered claystone; much pitted, of smaller size and thinner than usual; the cutting edge is in fairly good order, but, like the rest of the implement, is much pitted from the action of wind-blown sand or weathering. Weight 4½ ozs. Dimensions  $3\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$ . (Plate 13.)

9.—TOMAHAWK. From the Sandhills, Bondi, near Sydney, N.S.W. Of dark quartzite. The cutting edge is in fairly good order; there is a finger pit on one side, this pit is just above the figure 9 on the implement, but it does not show well in the plate, and is apparently of comparatively recent date. Weight 10½ ozs. Dimensions  $3\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$ . (Plate 17.)

10.—TOMAHAWK. From the Sandhills, Bondi, near Sydney, N.S.W. Of spotted altered claystone. Evidently a flat pebble ground to a cutting edge at one end. Weight 1lb. 5½ ozs. Dimensions  $4\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{2}$ . (Plate 18.)

11.—TOMAHAWK. From the Sandhills, Bondi, near Sydney, N.S.W. Of spotted altered claystone; old and much weathered or corroded by wind-borne sand, even on the cutting edge; with thumb and finger pits on both sides. Weight 7½ ozs. Dimensions  $3\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$ . (Plate 16.)

12.—TOMAHAWK. From the Sandhills, Bondi, near Sydney, N.S.W. Of spotted altered claystone, which is rather more schistose than some of the preceding. Old and weathered or corroded by wind-borne sand. Outline of implement more rectangular than usual, cutting edge in fairly good order but much pitted from weathering. Weight 7½ ozs. Dimensions  $3\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$ . (Plate 19.)

# A. LATERIDGE.

Most of the implements from Sans Souci and Bondi were obtained by me from the few blacks who, some twenty years ago, used to camp at these places.

## NATIVE IMPLEMENTS.

1.—TOMAHAWK. The Blacks' Camp, Sans Souci, Botany, N.S.W. Of dolomite; the cutting edge is fairly well ground, but the half or upper part is merely roughly dripped into shape. Weight 1lb. 12½ ozs. Dimensions  $5\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{2}$ . (Plate 11.)

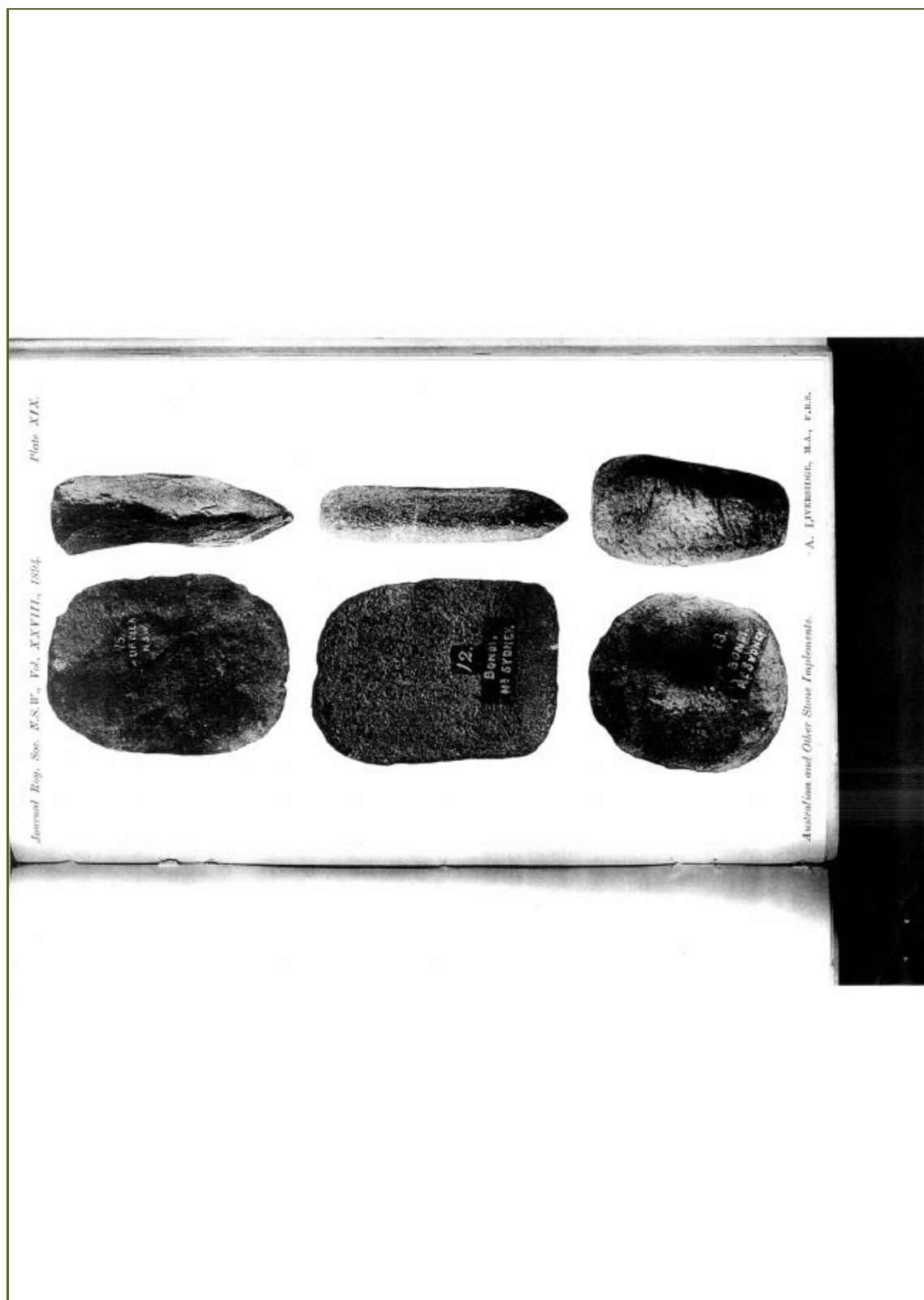
2.—TOMAHAWK. The Blacks' Camp, Sans Souci, Botany, N.S.W. Of dolomite; the wholeness of this has been worked into shape, except the top end; in general make and appearance it is very like No. 65, from Slacks, Australia. Weight 1lb. 12 ozs. Dimensions  $5\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{2}$ . (Plate 14.)

3.—TOMAHAWK. The Blacks' Camp, Sans Souci, Botany, N.S.W. A flat pebble of spotted altered claystone, with ground edge. Weight 12½ ozs. Dimensions  $4\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$ . (Plate 14.)

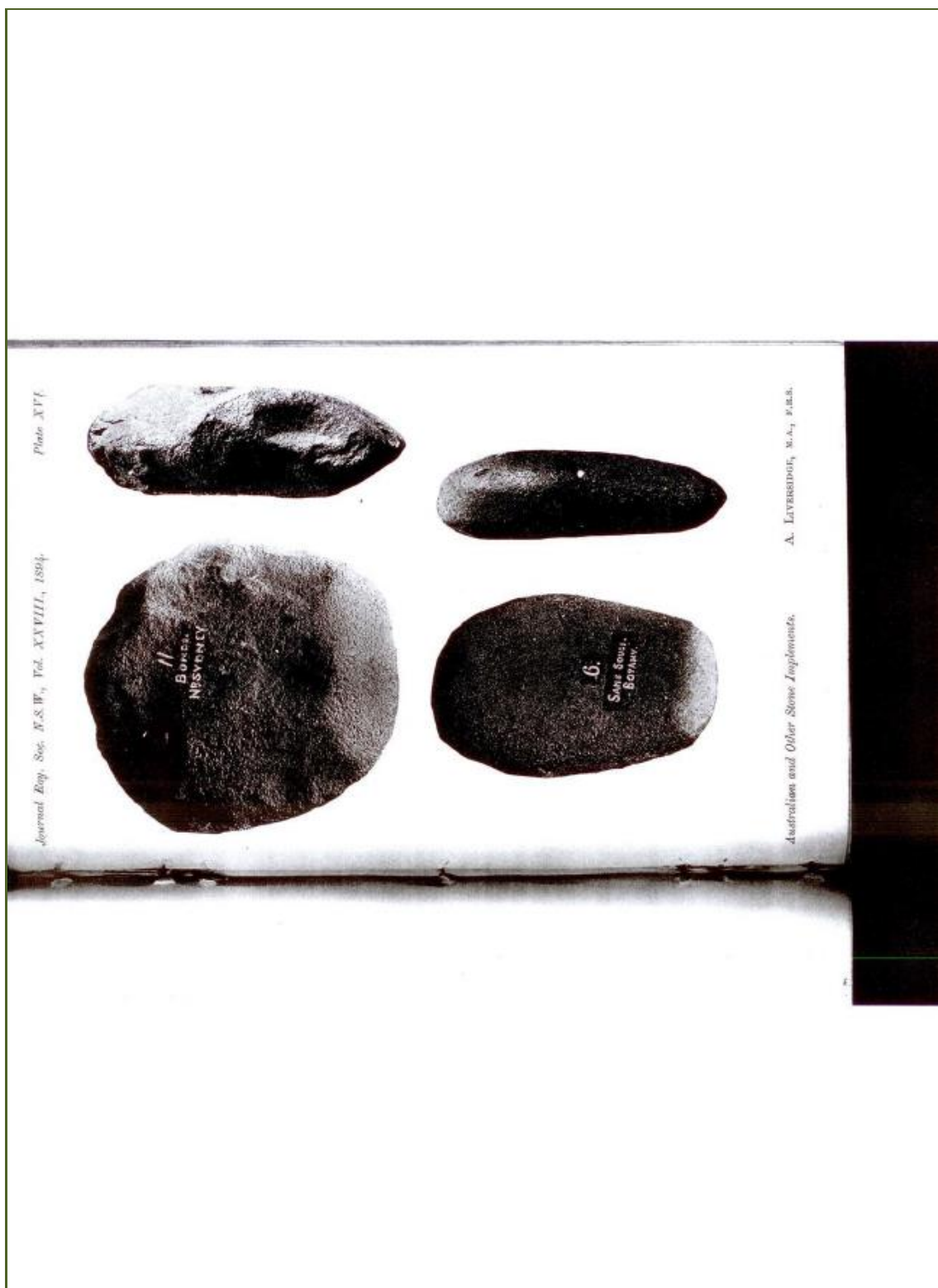
4.—TOMAHAWK. The Blacks' Camp, Sans Souci, Botany, N.S.W. Of spotted altered claystone; much worn. The cutting edge of this is so blunted as to be practically non-existent. Dimensions  $4\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{2}$ .

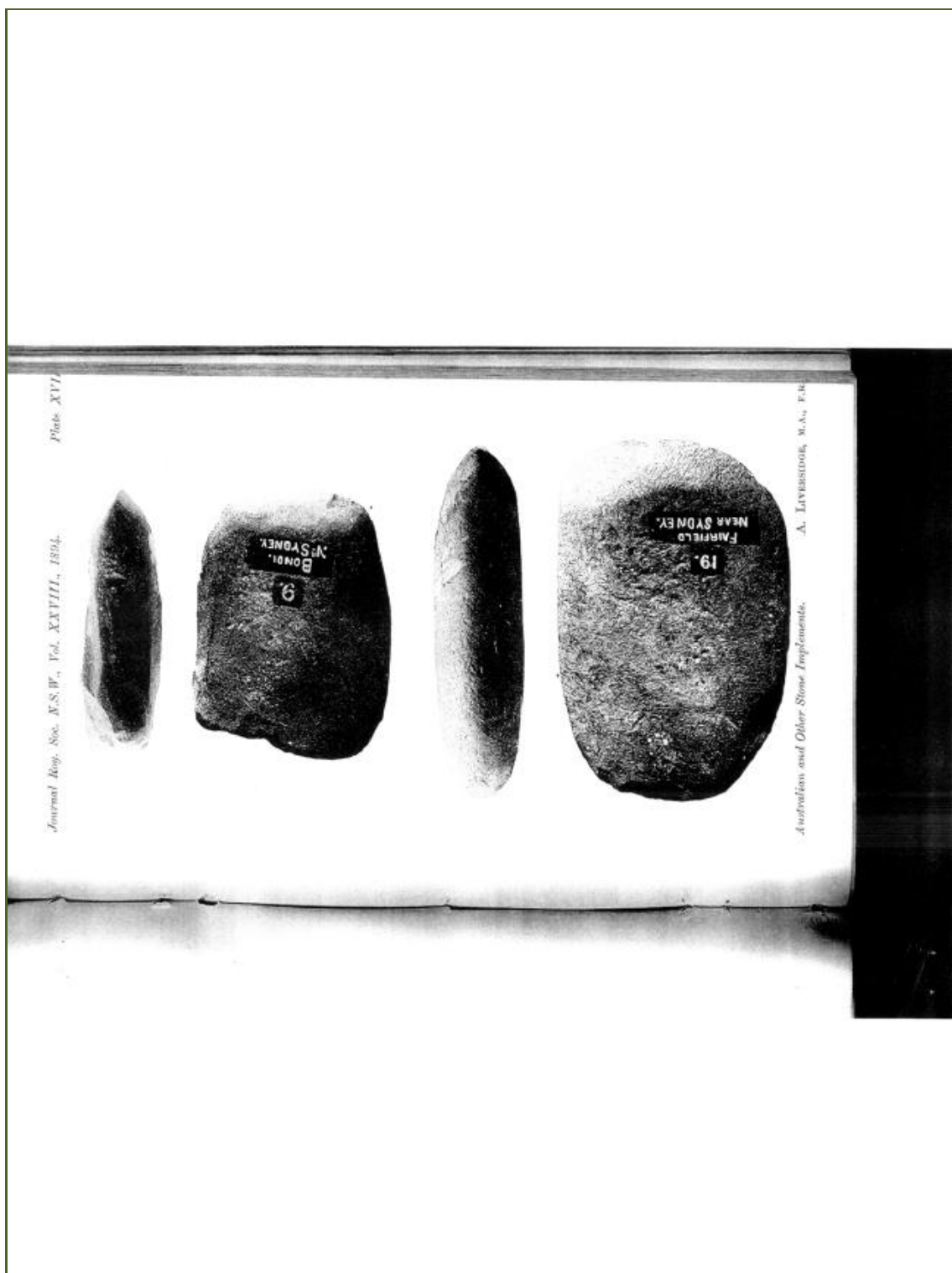
5.—TOMAHAWK. The Blacks' Camp, Sans Souci, Botany, N.S.W. Of spotted altered claystone; an attempt has been made to form thumb and finger pits. One side has been flattened, as if it had been rubbed down on a rock or used as a rubber or grinder; from the appearance of the ground surface this seems to be of much more recent origin than the implement itself; probably it was used as a grinder after it had become useless as a tomahawk. This is not well shown in the plate. Weight 13½ ozs. Dimensions  $4\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{2}$ . (Plate 15.)

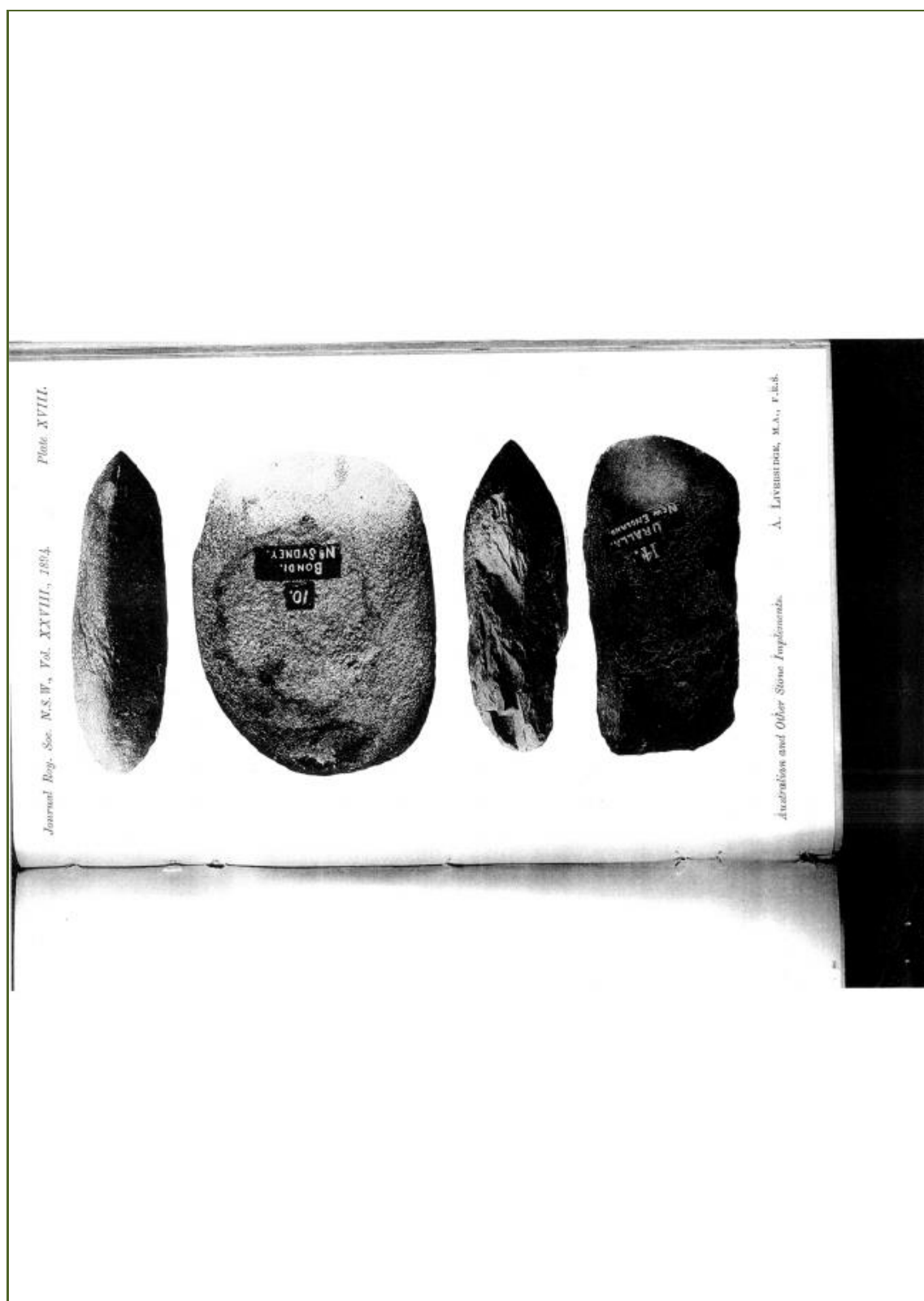
6.—TOMAHAWK. The Blacks' Camp, Sans Souci, Botany, N.S.W. Of spotted altered claystone; the shape is unusual, it is apparently merely a flat pebble with a ground cutting edge













## A. LUTHERSTONE.

## 13.—CIRCULAR STONE IMPLEMENT. Bondi, near Sydney, N.S.W.

Of quartzite; with deep thumb pit on one side and shallow one on the other; this was originally a tomahawk which has evidently been used as a hand hammer (i.e., without a handle) until the original cutting edge has been entirely worn away. Weight  $7\frac{1}{2}$  ozs. Dimensions  $2\frac{1}{2}'' \times 2\frac{1}{2}'' \times 1\frac{1}{2}''$ . (Plate 19.)

## 14.—TOMAHAWK. Uralia, New England District, N.S. Wales.

Indurated black claystone. Cutting edge in fairly good order; the upper part is newly roughly clipped into shape. Weight 12 ozs. Dimensions  $4\frac{1}{2}'' \times 2\frac{1}{2}'' \times 1\frac{1}{2}''$ . (Plate 18.)

## 15.—TOMAHAWK. Uralia, New England District, N.S.W.

Basalt; weathered to a brown colour, even on cutting edges, hence the implement is doubtless of considerable age. The original dark colour of the basalt is shown by the freshly fractured surfaces. This, together with the other Uralia specimens, was obtained by Mr. Cleghorn, A.P., of Uralia, and presented to me by him. Weight  $8\frac{1}{2}$  ozs. Dimensions  $3\frac{1}{2}'' \times 2\frac{1}{2}'' \times 1\frac{1}{2}''$ . (Plate 16.)

## 16.—TOMAHAWK. Victoria Park, near the University, Sydney, N.S. Wales.

An elongated pebble of the spotted altered claystone; worn and blunted at both ends; it is very much heavier and larger than usual; it was turned up in trenching the ground of Victoria Park, near the University; the soil of which is derived from a patch of the Waimanetta shale. Weight 4 lbs. 7 ozs. Dimensions  $9\frac{1}{2}'' \times 2\frac{1}{2}'' \times 2\frac{1}{2}''$ .

## 17.—TOMAHAWK. Fairfield, Southern Railway Line, eighteen miles from Sydney, N.S. Wales.

A large flattened pebble of spotted altered claystone; of unusual size and weight; the cutting edge in very good order; this is common with Nos. 16, 18, 19, and 20, was dug up from a clay soil, free from stones or pebbles, derived from the Waimanetta Shale. Weight 4 lbs. 9 ozs. Dimensions  $9\frac{1}{2}'' \times 4\frac{1}{2}'' \times 1\frac{1}{2}''$  to  $1\frac{1}{2}''$ . (Plate 20.)

## AUSTRALIAN AND OTHER STONE IMPLEMENTS.

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## 18.—TOMAHAWK. Fairfield, as above.

Of spotted altered claystone; this is a pebble ground down at one end; the cutting edge is almost obliterated. Weight 1 lb. 7 ozs. Dimensions  $4\frac{1}{2}'' \times 3\frac{1}{2}'' \times 1\frac{1}{2}''$ .

## 19.—TOMAHAWK. Fairfield, as above.

Of spotted altered claystone. A flat pebble ground to an edge, much weathered; the weathered skin is about  $\frac{1}{2}''$  deep. Weight 1 lb.  $4\frac{1}{2}$  ozs. Dimensions  $5'' \times 3\frac{1}{2}'' \times 1\frac{1}{2}''$ . (Plate 17.)

## 20.—TOMAHAWK. Fairfield, as above.

Of spotted altered claystone. This was evidently a rounded pebble which has been split in half longitudinally. Much weathered, the original structure of the rock is shown by the chip from the upper left-hand corner. Weight 11 ozs. Dimensions  $4\frac{1}{2}'' \times 3\frac{1}{2}'' \times 2''$ .

## 21.—TOMAHAWK. Long Bay, near Sydney, N.S. Wales.

Of weathered spotted altered claystone; with finger and thumb pits; the cutting edge in fairly good order but pitted from weathering. Weight  $14\frac{1}{2}$  ozs. Dimensions  $4\frac{1}{2}'' \times 5\frac{1}{2}'' \times 1\frac{1}{2}''$ .

## 22.—TOMAHAWK. Uralia, New England District, N.S. Wales.

Of black indurated claystone. An unusual form, being elliptical in section and much more symmetrical and highly finished than is usual with the New South Wales aboriginal implements. Weight 1 lb.  $8\frac{1}{2}$  ozs. Dimensions  $5\frac{1}{2}'' \times 2\frac{1}{2}'' \times 2\frac{1}{2}''$ . (Plate 15.)

## 23.—TOMAHAWK. Mung, Gippsland Lakes, Victoria.

Of mica schist; cutting edge much blunted and weathered. Weight 1 lb.  $1\frac{1}{2}$  ozs. Dimensions  $6\frac{1}{2}'' \times 2\frac{1}{2}'' \times 1\frac{1}{2}''$ . (Plate 21.)

## 24.—MOUNTED TOMAHAWK. From Queensland near the borders of N.S. Wales.

Of diorite; this is mounted in the original vine handle but without gum or resin, the vine is cut away as usual, to a flat surface inside, i.e., next to the stone head. This example is very much like a modern steel tomahawk in form; the

Aboriginal comm. -  
local history  
O'Brien family

Bondi View Oct-Nov, 2003

## Bondi skull

### Skull found on Bondi Beach!

In the days when Bondi was owned by Francis O'Brien, his son Thomas Ormond O'Brien loved to wander the sands of Bondi Beach and one windy day discovered a skull.

In his writings, titled "Reminiscences of Bondi" he described how a strong easterly wind had uncovered a skull. He also found stone axes. He wrote, "One easterly gale washed away the sand from the bay frontages, probably to an extent it had never done before, because it unearthed an Aboriginal skull and several Aboriginal tomahawks".

Around the same time, between 1876 and 1880 a skull of an Aboriginal male aged between 30 and 40 years was handed to the

Museum of Sydney. Dominic Wykanak, Greens councillor on Waverley Council has been researching the link between Thomas's findings as evidenced through his writings, and the skull in the Museum. Although he has not discovered a direct connection, Dominic has had thorough talks with descendants of the O'Brien Family.

"We have not yet established the connection, but the skull in the museum was labelled 'Bondi' with the date and details. We suspect Thomas brought the skull to the Museum," said Dominic.

The skull of the Aboriginal man was buried last year in Botany Park in a traditional ceremony.

Caroline Cass

#### In memory Bali October 10, 2002

The Byron family of Bondi, whose daughter Chloe was a victim of the Bali bombing, have had some joy. A baby girl was born to Chloe's aunt, on Chloe's birthday, in August of this year.

Randwick Council has commissioned a sculpture to commemorate local residents who died in the Bali tragedy. The sculpture will be installed at Dolphin Point, Coogee. THE BONDI VIEW wishes all families and friends peace and condolences on the first anniversary of this sad occasion.



Office of  
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## AHIMS Web Services (AWS) Search Result

Purchase Order/Reference : Bronte basic

Client Service ID : 163636

Dominic Steele Archaeological Consulting

Date: 25 February 2015

21 Macgregor Street  
CROYDON New South Wales 2132

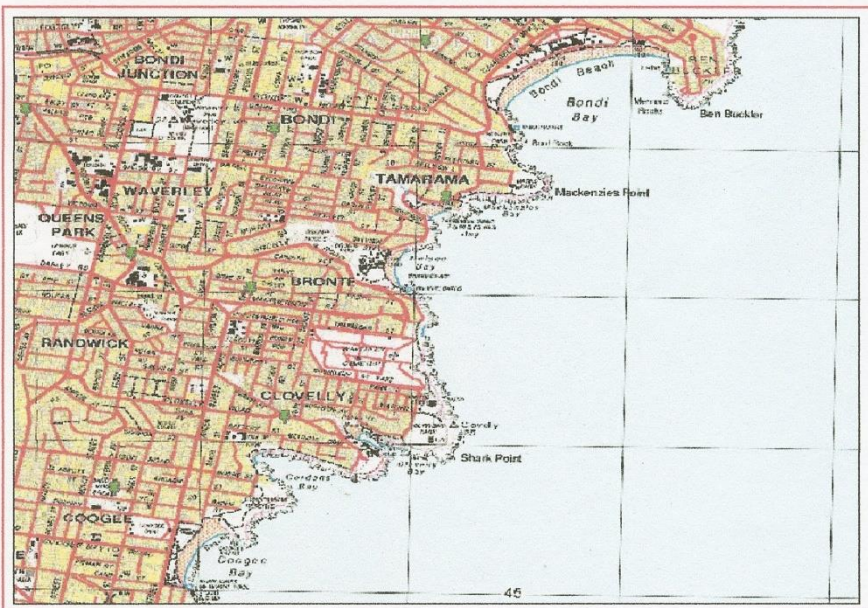
Attention: Dominic Steele

Email: dsca@bigpond.net.au

Dear Sir or Madam:

**AHIMS Web Service search for the following area at Datum :GDA. Zone : 56. Eastings : 339200 - 341000. Northings : 6245000 - 6248800 with a Buffer of 50 meters. conducted by Dominic Steele on 25 February 2015.**


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



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

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





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AHIMS Web Services (AWS)

Extensive search - Site list report

Purchase Order/Reference : Bronte ext

Client Service ID : 156881

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
45-6-2306	Gordons Bay;	AGD	56	339100	6245850	Open site	Valid	Grinding Groove :-	Axe Grinding Groove	
45-6-0694	<div>Contact</div> Middle Head;Port Jackson;	AGD	56	339594	6246471	Open site	Valid	Art (Pigment or Engraved) :-	Rock Engraving	
45-6-2060	<div>Contact</div> South Bondi Cave;	AGD	56	340320	6247930	Closed site	Valid	Shell :-, Artefact :-	Shelter with Midden	1809
45-6-2169	<div>Contact</div> Bondi Beach;	AGD	56	340650	6248550	Open site	Valid	Artefact :-	Open Camp Site	
45-6-1947	<div>Contact</div> Tamarama Beach Cave;	AGD	56	339990	6247380	Closed site	Valid	Shell :-, Artefact :-	Shelter with Midden	
45-6-0750	<div>Contact</div> Marks Park;Tamarama;Bondi Beach;	AGD	56	340420	6247470	Open site	Valid	Art (Pigment or Engraved) :-	Rock Engraving	
	<div>Contact</div>	Recorders		Mr.Peter Brookhouse				Permits		

Report generated by AHIMS Web Service on 03/12/2014 for Dominic Steele for the following area at Datum :GDA, Zone : 56, Eastings : 339200 - 341000, Northings : 6245800 - 6248800 with a Buffer of 50 meters. Additional info : for a cmp update. Number of Aboriginal sites and Aboriginal objects found is 6

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

Page 1 of 1

Report generated by AHIMS Web Service on 03/12/2014 for Dominic Steele for the following area at Datum :GDA, Zone : 56, Eastings : 339200 - 341000, Northings : 6245800 - 6248800 with a Buffer of 50 meters. Additional Info : for a cmp update. Number of Aboriginal sites and Aboriginal objects found is 6

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



Office of  
Environment  
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## AHIMS Web Services (AWS) Search Result

Purchase Order/Reference : Bondi Pavilion

Client Service ID : 225666

Dominic Steele Archaeological Consulting

Date: 17 May 2016

21 Macgregor Street  
CROYDON New South Wales 2132

Attention: Dominic Steele

Email: dsca@bigpond.net.au

Dear Sir or Madam:


AHIMS Web Service search for the following area at Datum :GDA, Zone : 56, Eastings : 340300 - 341400, Northings : 6248100 - 6248900 with a Buffer of 50 meters, conducted by Dominic Steele on 17 May 2016.

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



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

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



Office of  
Environment  
& Heritage

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

Your Ref/PO Number : Bondi Pavilion  
Client Service ID : 225668

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
45-6-2060	South Bondi Care;	AGD	56	340320	6247930	Closed site	Valid	Shell :- Artefact :-	Shelter with Midden	1809
45-6-2169	Contact Bondi Beach;	Recorders AGD	56	340650	6248550	Open site	Valid	Artefact :-	Open Camp Site	
45-6-0720	Contact Bondi Bay/Ben Buckery;	Recorders AGD	56	341100	6248200	Open site	Valid	Art (Pigment or Engraved) :-	Rock Engraving	
	Contact	Recorders	Mr Peter Brookhouse					Pernils		

Report generated by AHIMS Web Service on 17/05/2016 for Dominic Steele for the following area at Datum: GDA, Zone: 56, Eastings: 340300 - 341400, Northings: 6248100 - 6248900 with a Buffer of 50 meters. Additional Info : For an archaeological assessment, Number of Aboriginal sites and Aboriginal objects found is 3  
This information is not guaranteed to be free from error omission. Office of Environment and Heritage (NSW) and its employees disclaim liability for any act done or omission made on the information and consequences of such act or omission.

Page 1 of 1

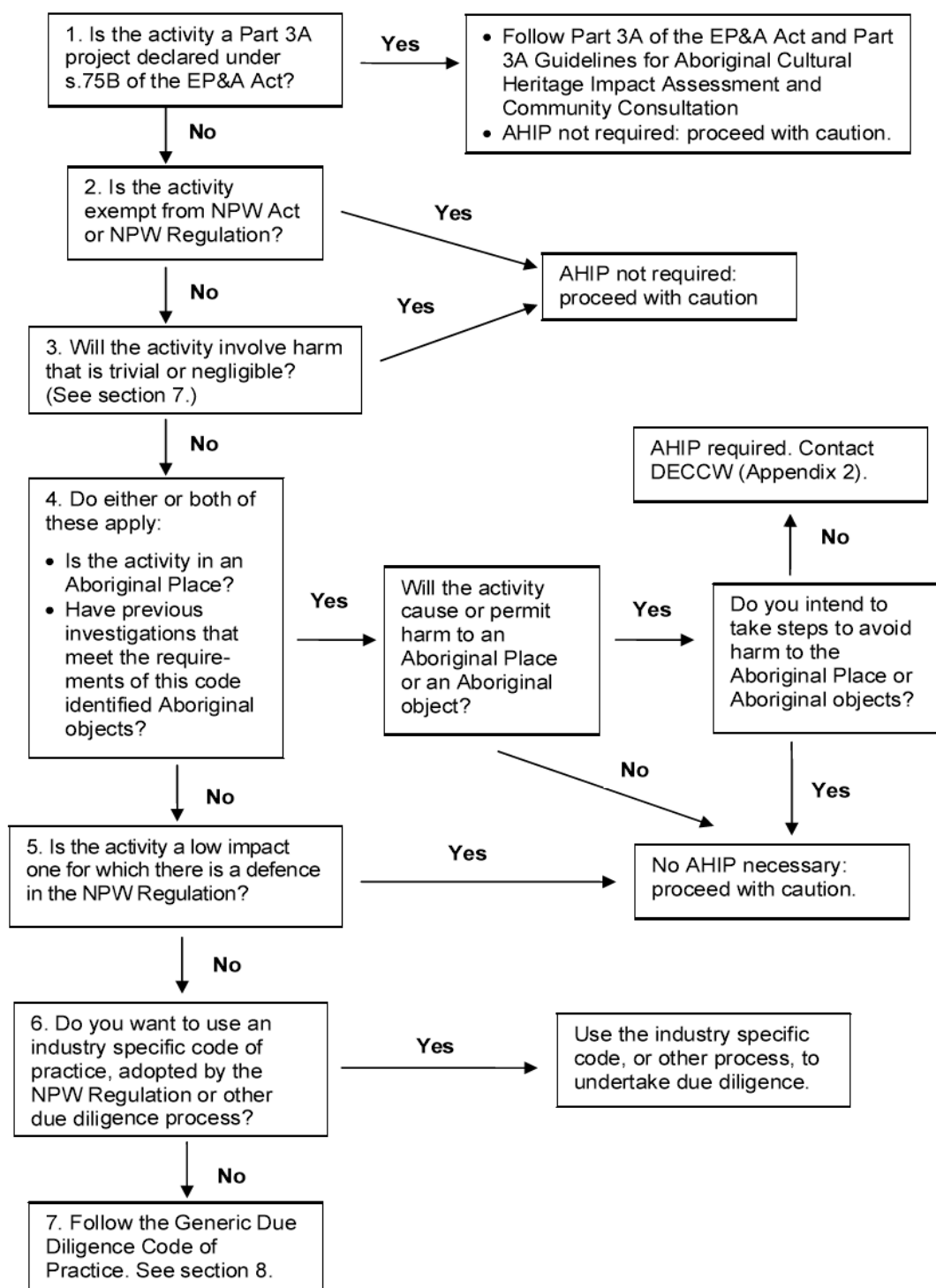
Report generated by AHIMS Web Service on 17/05/2016 for Dominic Steele for the following area at Datum :GDA, Zone : 56, Eastings: 340300 - 341400, Northings: 6248100 - 6248900 with a Buffer of 50 meters. Additional Info : For an archaeological assessment, Number of Aboriginal sites and Aboriginal objects found is 3

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



**Appendix 3****OEH Due Diligence Code of Practice****Protection of Aboriginal Objects in NSW – NPWS Act 1974**

## 1 Do you need to use this due diligence code?



## 8 The generic due diligence process

