

Archaeological Investigation Darling Quarter (formerly Darling Walk) Darling Harbour

1.0 Introduction

1.1 Project Background

The Darling Quarter site, formerly Darling Walk, is on the eastern foreshore of Darling Harbour.¹ The site is bounded by Harbour Drive to the east, Bathurst Street and the Western Distributor to the north, the Chinese Garden of Friendship to the south, and Tumbalong Park to the west (Figure 1.1, Figure 3.1.1). This former SegaWorld site was redeveloped by Lend Lease Development between 2008 and 2012. Darling Quarter is now home to the Commonwealth Bank, contains many retail premises, and a large children's playground and theatre.

Casey & Lowe were engaged by Lend Lease Development to manage the archaeological resource of the site. In 2008 a *Non-Indigenous Archaeological Assessment* and *Archaeological Management Strategy & Research Design* were prepared for the site.² An *Aboriginal Cultural Heritage Assessment* and *Aboriginal Archaeological Management Strategy & Research Design* were prepared by Comber Consultants.³ The project was to be undertaken under the previous Part 3A approval process under the *Environmental Planning & Assessment Act* but as the main archaeological program work was undertaken in association with early works and decontamination a S140 approval was required. The Sydney Harbour Foreshore (SHFA), under their delegation from the Heritage Council, issue approval S140-08-003 required. This report complies with Conditions 13 of that approval which requires at a final report is to be written outlining the finding of the archaeological program.

The site is located on the original eastern foreshore of Darling Harbour. Once mostly below the high tide level, the site was reclaimed during the first half of the 19th century to provide wharf facilities and land for both industrial and residential development. Throughout the century, site continued to be filled and levelled. Major redevelopment of the Darling Harbour area in the early 1900s and again in the 1980s also involved levelling and ground level raises rather than extensive excavation. This resulted in a high level of survival of archaeological remains of the sites former use and occupation.

The redevelopment included a large basement car park and several other excavation areas associated with the public domain civil works and the children's theatre development. These areas were subject to archaeological investigation. The large basement-area archaeological excavation was undertaken between October 2008 and April 2009. Smaller excavations and monitoring associated the public domain works were completed between February and September 2010. Casey & Lowe were responsible for the non-indigenous archaeology program and Comber Consultants undertook the Aboriginal archaeological testing and excavation program.

The archaeological excavation was one of the largest urban excavations in Australia. An area of over 9,500m² was archaeologically investigated. The multiple phases and range of archaeological remains at the site resulted in an incredibly large amount of data and artefacts. Post-excavation analysis, cataloguing, research and reporting by the Casey & Lowe team, Comber Consultants and a

¹ All archaeological records refer to Darling Walk as this was the name of the site during the archaeological program.

² Casey & Lowe 2008b, 2008c.

³ Comber Consultants 2008.

number of external specialists was undertaken between 2010 and 2013. This report in 6 volumes presents the results of the Darling Quarter archaeological investigation.



Figure 1.1: Location plan. The white building is the now demolished SegaWorld with the former pond to the west which is not the public domain. The red boundary is the Part 3A study area.

1.2 Excavation Methodology

The site was divided into areas based on mid 19th-century property boundaries (Figure 2.2). Open-area salvage excavation was undertaken within the basement footprint and several other areas within the development and public domain that required deep excavation (Figure 3.1.2). Due to the nature of the site, a large amount of mechanical excavation to remove extensive fill layers sealing the archaeology and in between archaeological levels was required. The archaeological excavation was linked with the construction program and following demolition of the SegaWorld buildings, the work began in the south of the site and progressed to the north. The archaeological site also contained areas of potential acid sulphate soil and contamination and limited investigation work was undertaken in these areas.⁴ A detailed description of the archaeological excavation methodology is presented in Section 3.1.1 to 3.1.5.

1.3 Report Methodology

This report is intended to respond to the standard conditions set by the NSW Heritage Council to produce a report presenting the results of an archaeological investigation. This report complies with Conditions 13 of the approval which requires at a final report is to be written outlining the

⁴ Details of these areas are provided in Section 3.1.6.

finding of the archaeological program. The main synthesis of the results is presented in Volume 1, Sections 3, 4 and 5. This final report includes:

VOLUME 1: Main Report

Section 1: Introduction
 Section 2: Historical Background
 Section 3: Results of the Archaeological Investigation
 Section 4: Artefact Overview
 Section 5: Response to the Research Design
 Section 6: Bibliography

VOLUME 2: Subsidiary Reports

Section 7: Detailed Description of the Archaeological Recording Program

VOLUME 3: Subsidiary Reports

Section 8: Specialists' Reports

VOLUME 4: Site Plans and Harris Matrix

Section 9: Interpretive Plans and Graphics
 Section 10: Detailed Site Plans
 Section 11: Harris Matrix of Archaeological Contexts

VOLUME 5: Appendices

Appendix 5.1: Lists and Registers
 Appendix 5.2: Historical Appendices
 Appendix 4.3: Artefact Tables for Section 4

VOLUME 6: Artefact Catalogue

Appendix 6.1: Common Abbreviations
 Appendix 6.2: Animal Bone
 Appendix 6.3: Building Material
 Appendix 6.4: Ceramics
 Appendix 6.5: Glass
 Appendix 6.6: Metals
 Appendix 6.7: Miscellaneous
 Appendix 6.8: Organics
 Appendix 6.9: Shell

1.4 Research Questions

A set of research questions for the archaeological investigation were developed in 2008 as part of the *Archaeological Management Strategy & Research Design* for the Darling Quarter development project. The research design was formulated following detailed historical research and the modelling of archaeological potential. Results and research from other Casey & Lowe archaeological projects also informed the Darling Quarter research design. The research design ensured that the archaeological investigation focused on genuine research needs and contributes to current and relevant knowledge.

The Research Design considered that the archaeology of the Darling Quarter site had the potential to contribute to research areas such as:

- Residential housing and material culture in the 19th century

- Industrial archaeology
- Landscape archaeology
- Overseas Chinese occupation

The archaeological excavation provided varying results in the ability to address the research questions set out for each of these themes. Overwhelmingly the archaeological resource of the site contributed to research into residential housing and material culture and landscape archaeology. There was no opportunity to investigate large areas of the industrial complexes such as the PN Russell foundry and therefore the response to the industrial archaeology research questions is limited. There was no evidence for occupation by overseas Chinese in the areas excavated. Therefore, the research questions relating to Chinese occupation and the associated material culture could not be pursued.

1.4.1 Residential Housing and Material Culture⁵

A series of questions were developed from investigating the archaeological remains at the CSR site (1996) were further developed for Union & Edward Street, Pyrmont (2004) and 19-41 Reservoir Street, Surry Hills (2005). These have been found to provide a solid basis for exploring residential housing in a range of working-class and lower middle-class environments. The focus of the research questions for Darling Quarter were:

- What evidence survives of the housing in this part of Darling Harbour?
- What evidence is there for the standard of living enjoyed by the earliest residents? Is there artefactual evidence for different standards of living between the houses occupied on the early industrial sites and the later workers housing?
- Is there evidence for cottage crafts or other unrecorded professions or works in the area?
- The material culture associated with the 19th-century occupation of the Darling Walk site has the ability to inform us about day-to-day issues associated with the lives of the residents of Pyrmont. The material culture can provide information on living standards, consumer choices, construction of gender identity and the nature of childhood.

Therefore the material culture of the Darling Quarter site should add to our understanding about the cultural, social and economic influences on the residents and how these influences affected their behaviour, as manifested through their choices about:

- Where activities were undertaken within a house,
- What type of activities were undertaken within a house,
 - what, how and where to eat,
 - what to wear,
 - what was acceptable recreation for adults and children within working-class homes?
 - what to buy
- The layout and range of accommodation and the services provided to the houses.

Other issues associated with these houses are that many of the residents would have worked in the surrounding industries such as: Barker's mill, PN Russell foundry and carriage works, on the wharfs and other engineering works. Therefore the archaeology of this housing presents an opportunity to explore the residential lives of workers living in close proximity to where they worked. This is similar to the former CSR site (Jacksons Landing) excavation where many of the residents worked at the adjacent sugar refinery while others operated their own businesses.

⁵ These research questions have been slightly redrafted for this report.

These questions mostly focus on urbanisation, material culture of consumerism and gender identities, childhood and women's work in the home. These are currently important questions in archaeological research designs.

1.4.2 Industrial Archaeology

The archaeological remains recovered from the CSR site were not of an industrial site, although the CSR housing was workers' housing for those who were employed in the surrounding area of industrial Pyrmont, many on the CSR site itself. The questions relating to the industrial sites within Darling Walk relate to both the technological nature of the sites and the evidence for work place practices as well as issues of urbanisation and concentration of work and living arrangements in close proximity.

A set of questions were developed by Casey & Lowe in 1995 for an iron foundry site in Pyrmont and also for a brickmaking area in Surry Hills on three different archaeological projects during the 1990s and in 2005.⁶ These questions relate to the exploration of the layout of the industrial set up, and how work moved through the site. The type of research questions which would be used to address the range of industrial sites within Darling Quarter are:

Questions that relate to the various use of the foundries and mills:

- Spatial use of the mill, identification of activity areas, i.e. as in the case of a foundry: furnace and melting of pig iron
 - casting of moulds
 - machine shop
 - storage of scrap iron
 - general use of yard area
 - movement around the site
- Nature of the technology evident in the various processes of the industrial activities undertaken within the mills and workshops and changes in technology.
- Evidence for the type of items produced by an individual company.
- Evidence for the working conditions of the staff.
- Other relevant questions as they arise.
- How the landscape or landform was transformed to allow for the operations of the mill or workshop, i.e. the casting of moulds in the ground, the creation of a mill pond or the reclamation of waterfront for wharfage.
- Relationship between the workshop/mill/foundry and the associated residential accommodation.
 - How was the life in the residences affected by being in such close proximity to an industrial complex?
 - Is this relationship exemplified by the presence or evidence of pollution within close proximity to the house? In the case of the Bulwara Road house the whole backyard was overlain with metal dross, suggesting that it was used as an extension of the industrial premises. The proximity of the foundry meant that there were no windows in the northern side of the house, the sunny side, so as to stop any smoke and soot on furnace firing days from entering into the house through the windows. Also no washing would have been done on furnace firing days.

1.4.3 Landscape Archaeology

The exploration of how the landform of Darling Harbour was altered between 1829 and 1986 is fascinating as it testifies to the need for more land in specific locations. It represents the development of urban pressures as early as the 1830s to concentrate industry with the main

⁶ Casey & Lowe 1995: 4-5, draft report.

transport network, shipping, so as to aid distribution of their products and the importation of the goods they need. The ability of people to suddenly be able to transform mudflats into useful land and be able to add on wharfage that is then far enough into the harbour to provide safe mooring for ships bringing in cargo and taking away produced goods. The alteration and manipulation of the landform of Darling Harbour has been part of its story for the last 200 years. The methods and means by which the landform was altered can tell us much about attitudes to waste and rubbish disposal, deposition of waste from other construction projects, such as the reclamation of this area in the 1920s with material excavated from the city train tunnels.

- What was the nature of the original landform and what plant species were found in this area?
- How has this part of Darling Harbour evolved over time?
- How many times was the landform remade within the study area?
- What different materials and means were used, and what was the depth of the reclamation at each stage?
- Were the different properties reclaimed at different times?
- How was the new landform used?
- What was the relationship between the reclaimed land and the wharfage?
- Other relevant questions as they arise.

1.4.4 Overseas Chinese

As no remains associated with the Overseas Chinese were found within the site these questions are not included in this report.

1.5 Heritage Significance

The Statement of Heritage Significance from the *Non-Indigenous Archaeological Assessment, Darling Walk, Darling Harbour*, June 2008, is reproduced below.

1.5.1 Original Statement of Heritage Significance (July 2008)

The Darling Quarter (formerly Darling Walk) site has the potential to contain a range of archaeological sites, dating from the 1830s to the early 20th century, that are part of the early development of industry and urbanisation in Sydney. These remains include an early phase of foreshore reclamation by Thomas Barker. The PN Russell foundry was one of the most important iron foundries in Sydney and was a major manufacturer, employer, fabricator and supplier of iron work including railway carriages and mining equipment. Barker's mill at the eastern edge of the study area has been assessed previously as being of State heritage significance and was a key industrial building and operation in Sydney into the 20th century. Other industrial remains include small scale foundries, a soap and candle works, and engineering workshops. Most of the various properties have phases of alteration and new works established as part of the intensely urbanised nature of one of the most urbanised cities in the world. Aspects of this site represent the very beginnings of urbanisation within Sydney. The workers' housing that is present within the study area was partly built by Thomas Barker in the 1840s for his workforce. The conditions in some of the housing were sub-standard and therefore fall into the class of 'slum' housing. The potential archaeological resource would provide independent evidence of the standards of housing and living enjoyed by a company workforce in this period. Impacts on the archaeological resource discussed above have led to reduction of the integrity of the remains, notably in Areas 2 and 3, William Orr's foundry and the Anchor Flour Mill, with some impacts in Areas 4, 5 and 6. Remains in parts of the study area have State significance while other areas are of high Local significance.

Areas of State Significance within the Darling Quarter site:

- Barker's mill (Area 9)

- PN Russell foundry (Area 4)

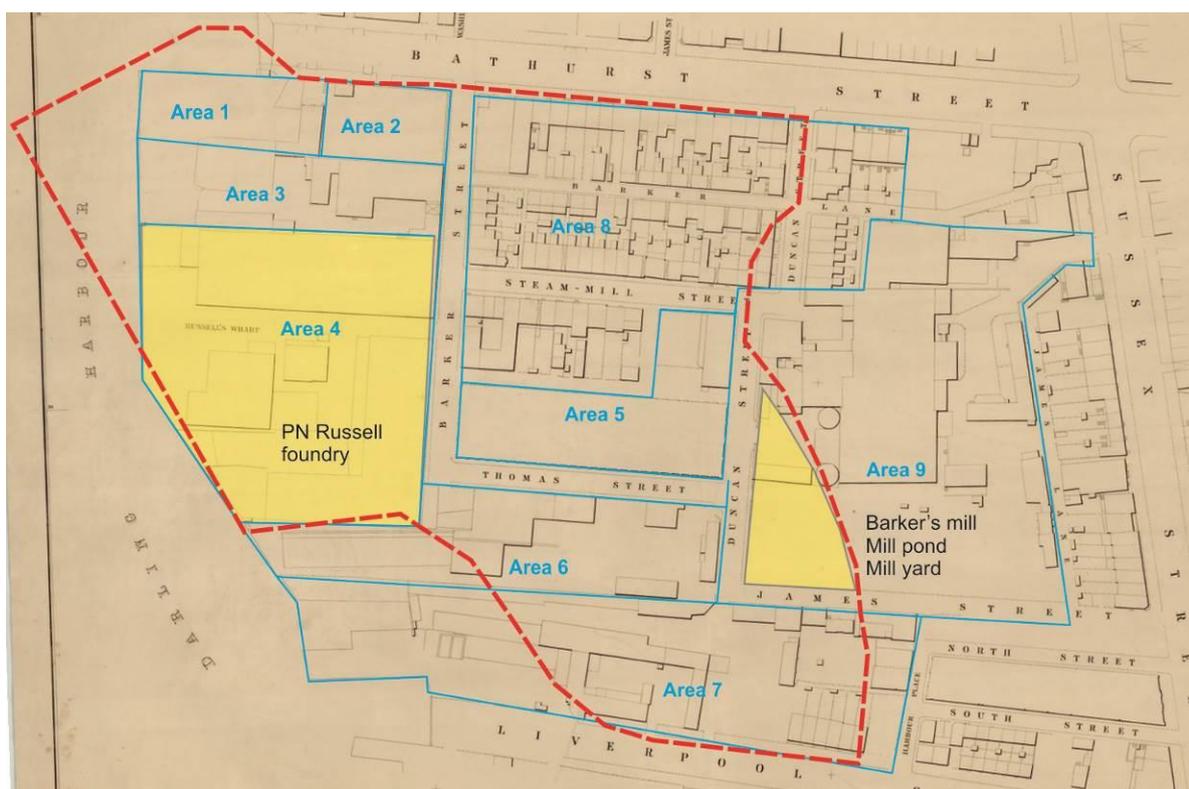


Figure 1.2: Plan illustrating the areas assessed in 2008 as being of State heritage significance shaded in yellow. Base map: 1886 MDS Section 10, SLNSW.

1.5.2 Revised Statement of Heritage Significance

The development pattern of reclamation and filling at this site from the 1820s ensured a high degree of intactness and archaeological survival. The site did contain archaeological remains of several phases of occupation and uses sealed between distinct layers or levels of fill. The archaeology of the site is associated with a number of important and successful entrepreneurs and industrialists in Sydney, such as Cooper & Levey in the 1820s, Thomas Barker between the late 1820s and 1870s, and PN Russell in the 1860s and 1870s. The excavation provided a great deal of archaeological evidence for transformation of the natural landscape, urbanisation and industrialisation of Sydney. These are important themes in current archaeological research, and the Darling Quarter site had made a substantial contribution to further our knowledge and understanding of these processes, especially in the context of 19th-century urban foreshore environments.

Substantial archaeological remains of the large mill pond and jetty associated with Barker's mill were recorded during the excavation. Both these structures were built by Cooper & Levey between 1823 and 1825 and their construction and engineering displayed a high degree of ability, creativity and ingenuity on the part of these early entrepreneurs. The location of a natural lagoon and creek were exploited to construct the mill pond. The pond was retained and reinforced on its western or harbour side by a timber-plank wall and an external clay embankments. The jetty was created by reclaiming a large portion of the intertidal sand flat behind a well-built sandstone seawall. The level of intactness and nature of the archaeological remains of Barker's mill pond reconfirm the 2008 assessment of State significance for these remains. As more substantial remains of the jetty than predicted in 2008 were found, this structure and its location can now be included as part of the State significant Barker's mill (Figure 1.3).

A small area of the PN Russell foundry complex was excavated. Substantial sandstone footings of the main building survive, and these were recorded and remain *in situ* as the development avoided impact on the main structures of the foundry. Impacts within the yard area required salvage excavation and remains of a weighbridge and narrow-gauge rail system within the yard area were found and recorded. The level of intactness of the remains and the fact that the main foundry complex was not impacted on by the development, reconfirms the 2008 assessment of the PN Russell foundry as being of State significance.

The remains and artefacts associated with seven houses on Steam Mill Street provided important archaeological evidence for the lives, conditions and aspirations of the working class in the latter half of the 19th century in Sydney. The archaeological remains raised questions about the working-class/lower middle-class divide as represented by the material culture of the private sphere. It suggests that while working-class people with middle-class aspirations may have projected a higher status publicly, their private lives (as represented by the kitchen underfloor deposits) may have very closely resembled their less fortunate working-class neighbours. The archaeological material from the Darling Quarter site can contribute to the wider picture of urban life and class in Sydney. The comprehensive artefact analysis and recording has made it possible to easily and accurately compare this site with the excavation and analysis of similarly constituted sites in the future.

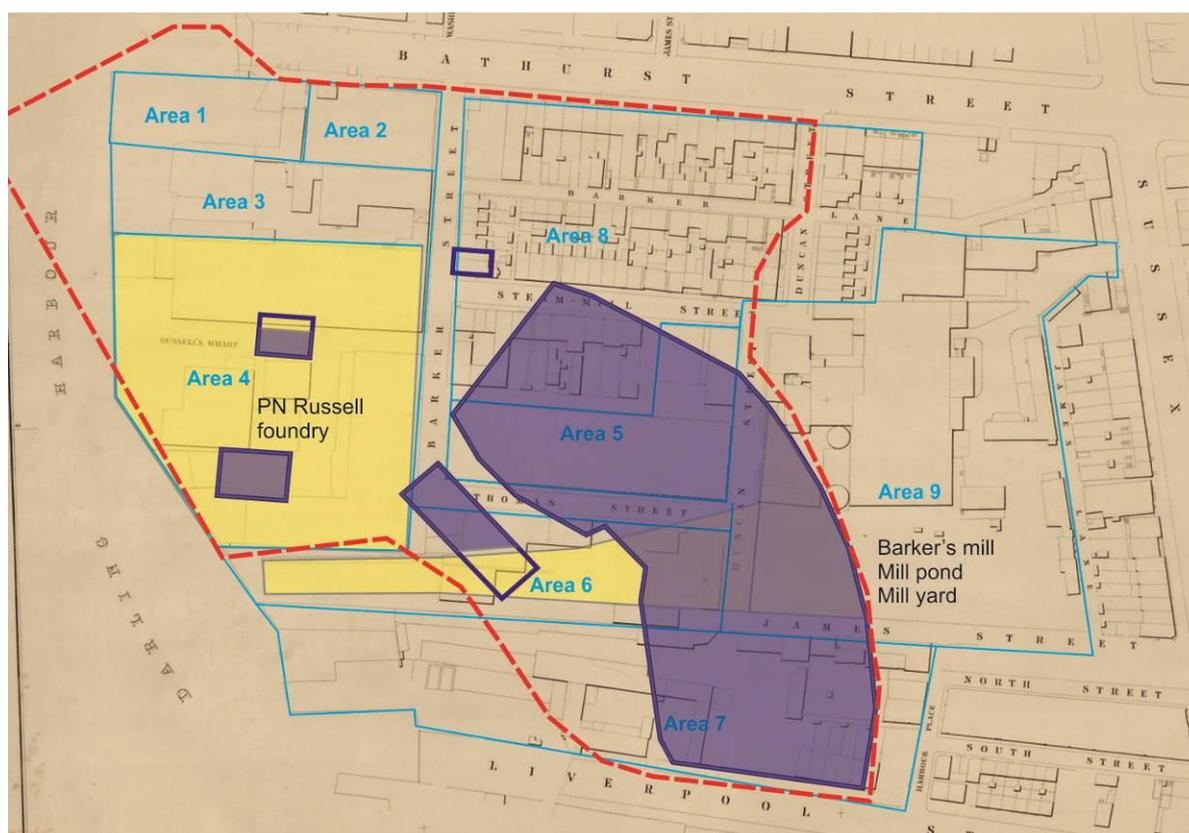


Figure 1.3: Plan illustrating the revised areas of State heritage significance (shaded yellow) following the completion of the archaeological investigation and reporting in 2013. The excavation areas are outlined in purple and the areas archaeologically excavated are shaded purple. Substantial remains of Barker's jetty were found within the excavation and it is anticipated that remains survive *in situ* below deep fills outside the basement footprint in the public domain and Tumbalong Park. Base map: 1886 MDS Section 10, SLNSW.

1.6 Artefacts and Samples

There are 254 boxes of artefacts and samples from this archaeological project.

Category	Number of boxes	Box numbers within each category
Architectural/ Building materials <ul style="list-style-type: none"> - Bricks - Bricks, mortar, plaster, pipe, slate, tile, marble, concrete, and asphalt) 	26 boxes in total, of those – 20 6	2 to 20 & 24 1, 21 to 23, 25 & 26
Ceramics <ul style="list-style-type: none"> - Stoneware - Other 	42 boxes in total, of those – 16 boxes 26 boxes	1 to 16 1, 17 to 42
Glass	81 boxes	
Metal	17 boxes	1 to 17
Miscellaneous	15 boxes	1 to 15
Organic <ul style="list-style-type: none"> - Leather - Fibre, matting and hair - Wood and seeds 	22 boxes in total, of those – 14 boxes 1 box 7 boxes	1 to 14 15 1 to 7
Animal bone	26 boxes	1 to 26
Shell	9 boxes	1 to 9
Soil & Pollen samples	16 boxes	1 to 16

1.7 Limitations

The Darling Quarter archaeological investigation was one of the largest urban excavations to be undertaken in Australia. It resulted in an extraordinary amount of archaeological data and artefacts that required an extended period of post-excavation cataloguing, analysis and reporting. The synthesis of the investigation results and the production of this final report also required a considerable amount of time. There were no particular limitations in the production of this report, resulting in a thorough, comprehensive and high standard final report. It must be noted that the archaeological research potential of the site has not been exhausted, and this report has focused on the archaeology of landscape transformation by reclamation, Barker's jetty and mill pond, and the workers' housing and associated artefacts. There are considerably more opportunities for further research.

1.8 Report Authorship

The team at Casey & Lowe and several external specialists were involved in the writing and production of this report. The main authors of the synthesis of archaeological results (Volume 1) are Abi Cryerhall (Vol 1, Section 1, Section 3.1 to 3.6, 3.8 to 3.11, and Section 5) and Mike Hincks (Vol 1, Section 3.7), and the artefacts overview (Vol 1, Section 4) was written by Rowan Ward based on the work of all the artefact specialists. The authors of the many technical and specialist reports are listed in the table below. Also, the people who contributed throughout all phases of the project that led to the final report production are also listed in the table below. The editing and review of Volume 1 of this report was undertaken by Dr Mary Casey, Director, Casey & Lowe.

Casey & Lowe Team	
Dr Mary Casey	<ul style="list-style-type: none"> • Principal Consultant and Director of the archaeological program, responsible for the project from assessment and research design stage to completion and production of the final report. • Co-Excavation Director for the excavation stage. • Co-Author of Section 2. • Editor/Review of Vol 1, Sections 1, 2, 3, 4 and 5.
Abi Cryerhall	<ul style="list-style-type: none"> • Co-Excavation Director for the excavation and monitoring program. • Post-Excavation Manager, responsible for the production of trench reports, matrices, site plans, registers, specialist reports. Project manager for the completion of the final excavation report. • Author of Section 3 - Results of the Archaeological Investigation (except 3.7). • Author of Section 5– Response to Research Questions (except 5.2). • Co-Author of Section 1. • Author of Section 7.7 (Area 9 Mill Pond Trench Report). • Co-Author of Section 7.2 (Area 6 Trench Report). • Co-Author of Section 7.8 (Public Domain Trench Report). • Co-Author of Section 7.9 (Field Report Pollen Samples) and Section 7.10 (Field Report Timber Samples). • Produced overlays, graphics and interpretive graphics used in Section 3 and Section 9 of the final report. • Review of Sections 7, 8, 9, 10 and 11.
Mike Hincks	<ul style="list-style-type: none"> • Supervisor Area 8 and Public Domain works. • Author of Section 3.7 – synthesis of the Worker’s Housing results. • Author of Section 5.2 – research questions concerning material culture and residential housing. • Author of Section 7.4 (Area 8 Trench Report and Matrix). • Co-Author of Section 7.2 (Area 6 Trench Report) and 7.8. (Public Domain Trench Report and Kiosk Matrix).
Rowan Ward	<ul style="list-style-type: none"> • Site Artefacts Supervisor. • Specialist cataloguing (Ceramics). • Author of Section 4 – Artefact Overview • Author of Section 8.1 (Ceramics).
Amanda Dusting	<ul style="list-style-type: none"> • Supervisor Area 7 and Public Domain works • Author of Section 7.3(Area 7 Trench Report and Matrix). • Co-Author of Section 7.8 (Public Domain Trench Report and Matrices). • Also produced site plans for the Public Domain.
Nick Harrop	<ul style="list-style-type: none"> • Supervisor Area 5, 8CT and 9 Mill Yard. • Author of Section 7.1 (Area 5 Boiler House), Section 7.5 (Area 8CT) and Section 7.6 (Area 9 Mill Yard). • Responsible for producing matrices (Section 10).
Robyn Stocks	<ul style="list-style-type: none"> • Specialist cataloguing (Miscellaneous). • Author of Section 8.2 (Miscellaneous). • Supervised the cataloguing of metals, building materials and organics. • Review of Section 4 and other sections of the report.
Sandra Kuiters	<ul style="list-style-type: none"> • Author of Timber Samples Analysis report – Section 8.8. • Co-Author of Section 1. • Post-ex Assistant, responsible for finalising all our registers, chasing up (and fixing!) all those loose-ends, managing the artefacts and samples archiving, data entry, cross-referencing trench reports and plans, database searches, formatting, and catalogue fixes. • Research Assistant for Abi during Section 3 results synthesis writing, created artefact tables for reclamation fills and Murphy’s Wharf,

	<p>undertook historical research, contributed to the main report, made many database queries on the hunt for answers to questions that weren't always clear, took photos of artefacts, created the bibliography (Section 6), general edit of text and formatting and printing of subsidiary reports.</p> <ul style="list-style-type: none"> • Created the Area 8 and Worker's housing underfloor grid tables used in the Miscellaneous Report (Section 8.2). • Printed and bound all copies of the report. No easy task!
Jill Miskella	<ul style="list-style-type: none"> • General Supervisor (recording and systems) during part of the excavation program. • Audit of trench reports, matrices and site plans. • Produced the final detailed site plans for the report – Section 10. • Main cataloguer of building materials. • Author of Structural Materials Report Section 8.11.
Beau Spry	<ul style="list-style-type: none"> • Excavation Assistant. • Assistant Supervisor Public Domain works, research for steam engines. • Post-ex Assistant responsible for the field reports on the soil and pollen sampling. • Preliminary catalogue of the building materials and metals.
Franz Reidel	<ul style="list-style-type: none"> • Senior Site planner, responsible for the site planning system and grid, production of the initial scaled site drawings used in this report.
Shane Willis	<ul style="list-style-type: none"> • Site Planner. • Produced many of the initial site drawings used in this report. • Inked all the site plans prior to digitising.
Rhian Slicer Jones	<ul style="list-style-type: none"> • Excavation Assistant. • Post-ex Assistant in the initial stages, data entry and registers. • Co-author of the field report for timber samples – Section 7.10.
Jenny Winnett	<ul style="list-style-type: none"> • Excavation Assistant. • Compiled and contributed to the historic background and undertook further research (Section 2).
Nick Pitt	<ul style="list-style-type: none"> • Research Assistant responsible for further research for the 1788 to 1830s use of the site, in particular Cooper & Levey. Author of sub-sections 3.4.2.1, 3.4.2.2, 3.4.2.3. • Post-excavation Assistant responsible for shell dates and interpretation. • Author of Shell C14 Dating Report Section 8.10. • Produced Volume 6: Artefact Catalogue. • Review of Section 4, Section 8.2.
Robert Maxwell	<ul style="list-style-type: none"> • Excavation Assistant. • Post-ex Assistant finalising various registers, cataloguing organics (seeds and wood). • Site videography. • Data entry.
Mary Semper	<ul style="list-style-type: none"> • Data entry.

Sub-Consultants and Specialists

Jillian Comber	<ul style="list-style-type: none"> • Excavation Director and Consultant for Aboriginal Archaeological Assessment and Excavation. • Author of Aboriginal Archaeological Excavation Report, included in this report as Section 8.9.
Dr Rosemary Annable	<ul style="list-style-type: none"> • Historian. • Main Author of Section 2 and additional research for Steam Mill Street houses (Area 8).
Dr Melissa Carter	<ul style="list-style-type: none"> • Shell Specialist. • Author of Shell Report - Section 8.5.
Dr Melanie Fillios	<ul style="list-style-type: none"> • Faunal Remains Specialist.

	<ul style="list-style-type: none"> • Author of Faunal Remains Analysis - Section 8.4.
Jeanne Harris	<ul style="list-style-type: none"> • Artefact Specialist. • Author of Glass Report - Section 8.3.
Dr Roy Lawrie	<ul style="list-style-type: none"> • Soil Scientist. • Author of Soil Sample Analysis - Section 8.7.
Dr Mike Macphail	<ul style="list-style-type: none"> • Archaeobotanical Specialist. • Author of Pollen Analysis Report - Section 8.6.

1.9 Acknowledgements

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Phil Kena, Lend Lease
Dr Wayne Johnson. SHFA
Kieran Hosty, Maritime Museum
Tony Lowe, Casey & Lowe
Dr Martin Gibbs, University of Sydney
Cosmos Coroneos, Cosmos Archaeology

1.10 Abbreviations

ADB	Australian Dictionary of Biography
AHD	Australian Height Datum
C&LD	Casey & Lowe database
CALM	Department of Conservation and Land Management
CT	Certificate of Title
LAV&P	New South Wales Legislative Assembly Votes and Proceedings
LTO	Land Titles Office
L&PI	Land & Property Information
MHWM	Mean high water mark
MLWM	Mean low water mark
ML, SLNSW	Mitchell Library, State Library of New South Wales
MIC	Minimum Item Count
MNI	Minimum Number of Items
MVC	Minimum Vessel Count
NLA	National Library of Australia
PASS	Potential Acid Sulphate Soil
PWD	Public Works Department
SRNSW	State Records New South Wales
TAQ	<i>terminus ante quem</i> (date before which)
TPQ	<i>terminus post quem</i> (date after which)
TT	Test trench
SG	<i>Sydney Gazette</i>
ZFDTG	Fort Denison Tide Gauge