Excavation Directors Report

Sydney Metro, City & Southwest

Pitt Street South Station

15/12/2023

Final Excavation Report on the Pitt Street South Station

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Executive summary

AMBS Ecology & Heritage (AMBS) was engaged by John Holland CPB Ghella Joint Venture to oversee, manage and advise on all heritage and archaeological matters for the Sydney Metro & City Southwest project, including the completion of archaeological investigations for a number of sites which would be impacted by the proposed works. The project was approved as State Significant Infrastructure (Application no. SSI 15_7400) on 9 January 2017. AMBS was subsequently commissioned to prepare the final excavation report for the Pitt Street southern entry to the station by Sydney Metro. This report addresses archaeological investigations undertaken at the Pitt Street South site in accordance with Condition E18 of the project approval. The Pitt Street South site will serve as the southern entrance to the underground Pitt Street Metro Station.

AMBS completed archaeological investigations on site between 23 November 2018 and 23 July 2019. Monitoring works were undertaken by Primary Excavation Director Jennie Lindbergh and Secondary Excavation Director Kevin Hickson, while open area excavations were led on site by Secondary Excavation Director Kevin Hickson and Heritage Team Leader Lian Ramage, with Jennie Lindbergh attending site on a regular basis to provide oversight to the works. All works on site were completed in accordance with the *Sydney Metro, City & Southwest Archaeological Method Statement for Pitt Street Station South* (AMBS 2017).

Historical documentation identified that by the 1820s the Pitt Street South station site had been subdivided and houses and shops were built on the blocks. An undated map of the Parish of St Lawrence indicates that the block of land grants bounded by Pitt, Bathurst, Castlereagh and Liverpool streets was divided distinctly more symmetrically than most neighbouring blocks and the area was occupied by a great number of wooden huts and temporary cottages. By 1823 Section 14, including PS3 and PS4, on Bathurst Street and Section 15 (PS2) on Pitt Street, were unoccupied, whereas Section 16 (PS1) Pitt Street was sparsely occupied with two structures. In 1826 we see continued development of the area with three structures recorded in PS4. By 1831 PS1 and PS2 were densely occupied by an irregular collection of buildings. Development of the site continued into the mid-1800s with the configuration of structures in PS3 and PS4 changing, now presenting a mixed-use occupation of the site with a variety of commercial enterprises. The earlier structures within PS1 and PS2 had also changed however they still comprised a more irregular collection of buildings. By the late 1800s early 1900s the site had undergone further development with PS1 and PS3 occupied by large scale buildings, PS2 and PS4 containing Victorian terraces.

Archaeological evidence within the Pitt Street South site was concentrated in PS4. Removal of the extant slab revealed sandstone associated with the 1880s building which occupied the site until it was demolished for the metro works in 2019. Remains associated with the 1880s building included chimney pads in each of the houses, a large cellar in rooms 1 and 2 of House 135, and hearths and underfloor deposits across all three houses. Many of these deposits had been impacted by later work within the footprint of the buildings, mainly related to the installation of services.

Archaeological remains were also identified which are likely to be associated with earlier occupation of PS4. In particular the sandstock brick water closet (WC) in the south-western

corner of the site is associated with the tenement buildings, which stood on site from c.1826 to c.1882. A series of post holes identified in House 131 also match the extent of the tenement as shown in the 1865 plan.

In the northern portion of the site, in room 1and 2 of House 133, a foundation trench running north south containing remnant sandstone footings was identified, with a return also running along the northern boundary of the property, closely matching the footprint of the c.1832 cottage.

In accordance with the AMS, no archaeological investigations were undertaken in PS2, as it had been subject to heavy disturbance by the installation of a basement level in the twentieth century. Monitoring within PS1 identified that the construction of Druids House in 1903 had removed all evidence of previous occupation on site, with the demolition of the existing slab revealing natural soil profiles. PS3 was also grossly disturbed, with only a single row of sandstone blocks identified, which may be associated with the c1865 stables on the site.

Based on the results of the excavations and subsequent artefact analysis, it has been assessed that the archaeological remains of the Pitt Street South site are of local significance and represent early settlement patterns of the local area and a response to the rapid growth of Sydney during the early years of settlement. Change from the residential nature to a mixed commercial and residential occupancy is also reflected in the archaeological resources. The artefactual evidence affirms the documented history of the terrace with the assemblage representing the different commercial activities and provides some evidence of the residents living and working on site, with occupation of the site from the 1880s of middle-class families providing services for the middle to low socioeconomic local community.

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1 Introduction

1.1 Background

The Sydney Metro City and Southwest project is a 30km-long section of new rail system from Chatswood to Bankstown and includes a new crossing beneath Sydney Harbour and new railway stations. The scope includes Tunnels and Station Excavation (TSE) Works and construction works associated with the following stations, dives and shafts (Figure 1.1):

- Chatswood
- Artarmon
- Crows Nest
- Victoria Cross (North Sydney)
- Blues Point
- Martin Place
- Barangaroo
- Pitt Street
- Waterloo
- Marrickville.

The Project was approved by the Minister for Planning on 9 January 2017 subject to a number of Conditions set out in Critical State Significant Infrastructure Sydney Metro and Southwest Chatswood to Sydenham Infrastructure Approval (Application no. SSI 15_7400) (Project Planning Approval), of which Condition E18 states:

> *Before excavation of archaeological management sites, the Proponent must nominate a suitably qualified Excavation Director who complies with the Heritage Council of NSW's Criteria for Assessment of Excavation Directors (July 2011) to oversee and advise on matters associated with historic archaeology and advise the Department and OEH.*
>
> *Where archaeological excavation is required, the Excavation Director must be present to oversee excavation and advise on archaeological issues. The Excavation Director must be given the authority to advise on the duration and extent of oversight required as informed by the provisions of the approved AARD and Excavation Methodology.*
>
> *A final archaeological report must be submitted to the Heritage Council of NSW within two (2) years of the completion of archaeological excavation on the project. The report must include information on the entire historical archaeological program relating to the CSSI.*

John Holland CPB Ghella Joint Venture, who undertook the TSE Works commissioned AMBS Ecology & Heritage (AMBS) to oversee, manage and advise on all heritage and archaeological matters for the project with Jennie Lindbergh, AMBS Director Historic Heritage, the Primary Excavation Director, in accordance with Condition E18. AMBS was subsequently commissioned to prepare the final excavation report for the Pitt Street southern entry to the station by Sydney Metro. This final archaeological report on the excavations at the Waterloo Station site has also been prepared in accordance with Condition E18.

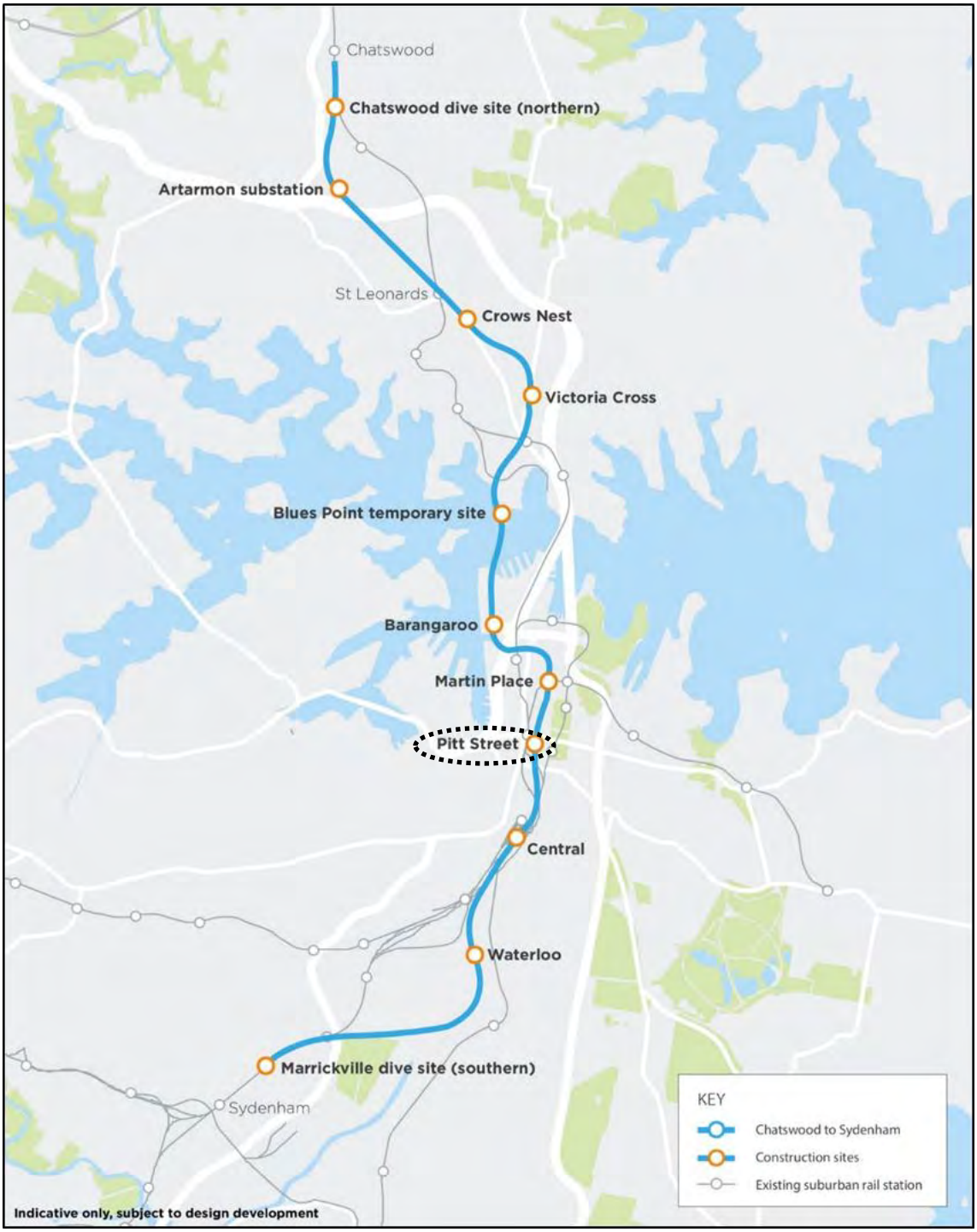

Figure 1.1 Project overview with Pitt Street Station circled (Sydney Metro Transport for NSW).

1.2 Site location

The metro line will run below Pitt and Castlereagh Streets and the Pitt Street Station site includes two station entrances a northern and southern entry within the City of Sydney Local Government Area (LGA). The northern entry to the station is located on Park Street between Castlereagh and Pitt Streets, with access off Park Street, and is the subject of a separate excavation Report prepared

by Casey & Lowe. The southern entry, which is the subject of this report, is on the south side of Bathurst Street and east side of Pitt Street accessed from Pitt Street (Figure 1.2). Located on the corner of Bathurst and Pitt Streets is the Edinburgh Castle Hotel, a locally listed heritage item on the City of Sydney Local Environmental Plan (LEP 2012). As the southern entry project area is located adjacent to the hotel on its eastern and southern sides protective measures were installed to avoid impacts to the building as per the 2017 Construction Heritage Management Plan.

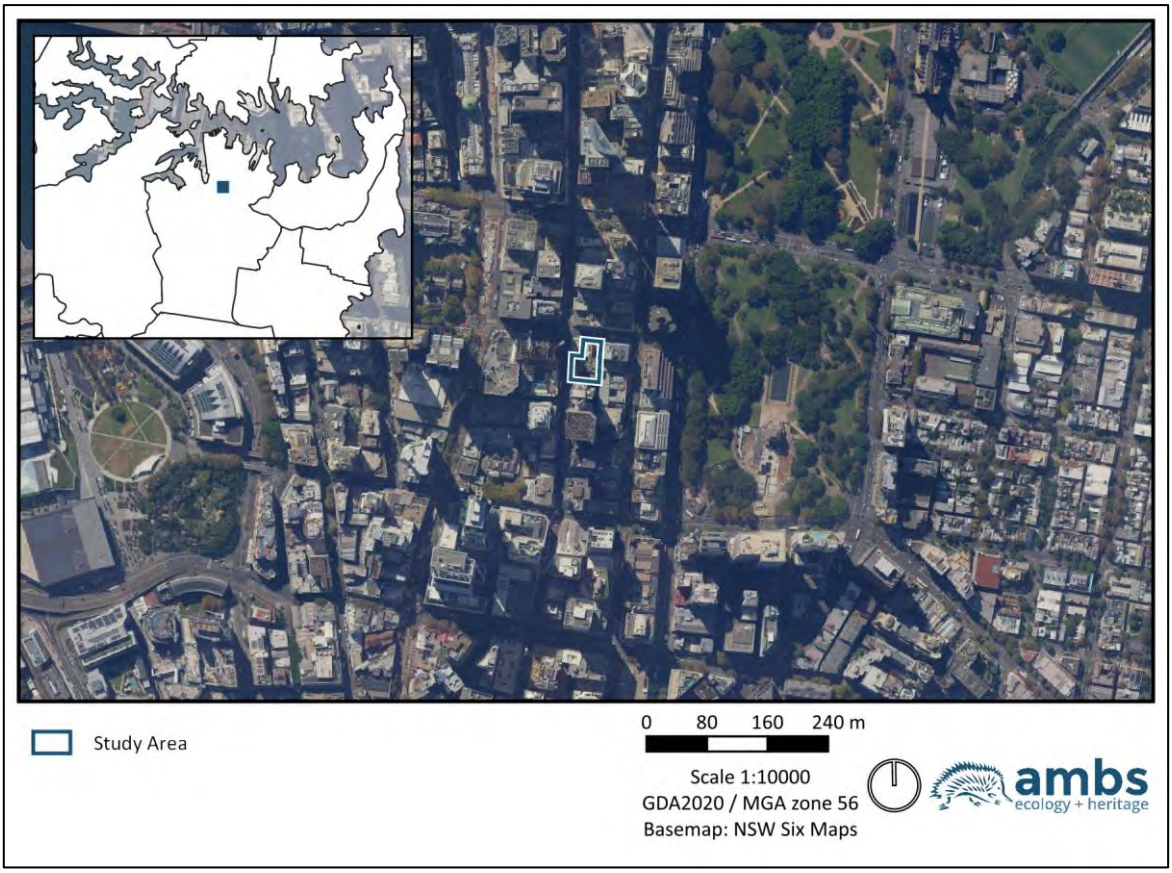

Figure 1.2 Location of the Pitt Street South Station site.

1.3 Project approvals

Prior to excavation at the Pitt Street Station South, AMBS prepared the Sydney Metro, City and Southwest Archaeological Method Statement for Pitt Street Station South (AMS), in June 2018 in accordance with Minister's Condition E17.

> *The Archaeological Assessment Research Design Report (AARD) in the PIR must be implemented. Final Archaeological Method Statements must be prepared in consultation with the Heritage Council of NSW (or its delegate) before commencement of archaeological excavation works. The final methodology must:*
> *(a) provide for the detailed analysis of any heritage items discovered during the investigations;*
> *(b) include detailed site specific archaeological management and artefact management strategies;*

(c) include cored soil samples for soil and pollen for the Pitt Street site within the Tank Stream Valley; and
(d) provide for a sieving strategy.

The AMBS AMS was informed by the Sydney Metro Historical Archaeological Assessment and Research Design Report (AARD) prepared in 2016 by Artefact Heritage (Section 2.1). This report has been prepared in accordance with Condition E18.

1.4 Report methodology

This report is consistent with the principles and guidelines of the *Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance 2013*. It has been prepared in accordance with current best-practice guidelines as identified in the *NSW Heritage Manual* (1996), published by the Heritage Office and Department of Urban Affairs and Planning (now the Heritage Division, Office of Environment and Heritage), and associated supplementary publications, in particular *Assessing Significance for Historical Archaeological Sites and 'Relics'* (2009) and the *Historical Archaeological Code of Practice* (2006).

1.4.1 Report structure

This report comprises One Volume and includes:

- **Section 1: Introduction.** This section outlines the background to the project including statutory approvals.
- **Section 2: Previous desktop investigations.** A summary of previous investigations completed for the Pitt Street South site.
- **Section 3: Historical background.** This section outlines the history of the site and is replicated from the Historic Context contained in the AMBS 2017 AMS.
- **Section 4: Archaeological investigations.** A summary of the methodology for the archaeological investigation and results of the fieldwork completed on site.
- **Section 5: Open area excavations.** Trench report with the results of the archaeological excavations.
- **Section 6: Artefact analysis.** The methodology and results of the artefact analysis.
- **Section 7: Response to the research framework.** Responses to the research questions based on the results of the archaeological investigations and artefact analysis.
- **Section 8: Re-Evaluation of archaeological significance.** A reassessment of the archaeological significance of the Pitt Street South site based on the results of the archaeological investigations.
- **Section 9: Conclusion.** A summary of the results of the assessment.

The report contains six appendices, including:

- **Appendix A: Digitised site plans and register.**
- **Appendix B: Context register.**
- **Appendix C: Photo register.**
- **Appendix D: Photo contact sheets.**
- **Appendix E: Artefact catalogue.**
- **Appendix F: Harris matrices.**

1.5 Authorship and acknowledgements

This report has been prepared by Lian Ramage, Heritage Team Leader, with assistance from James Cole, Senior Heritage Consultant. The artefact analysis presented in this report has been undertaken by a specialist in-house team under the direction of the Primary Excavation Director, Jennie Lindbergh and site director Lian Ramage. All artefact processing and analysis has been undertaken in accordance with AMBS' system, developed by Lian Ramage and Madeleine Rodwell to be consistent with standard artefact databases for the Sydney and wider regions and is and compatible across the excavation sites encompassed in the Sydney Metro project. Specialist artefact inputs have been authored by Madeleine Rodwell (glass and ceramic), Lian Ramage (fauna), Jane Rooke (miscellaneous), Sarah Rollason (shell), and Jane Rooke (metal and building materials). Appendices were compiled by Victoria Cottle and Jane Rooke, Historic Heritage Consultant. James Cole ensured that all documents were formatted correctly. The report has been reviewed for consistency and quality by Jennie Lindbergh, AMBS Director Historic Heritage.

1.5.1 Archaeological field staff

The day-to-day management of the archaeological excavations were undertaken by Secondary Excavation Director, Kevin Hickson and Site Director Lian Ramage. Kevin Hickson has been managing the excavations of Sydney Metro sites at Chatswood Dive and the Waterloo Station site, under the direction of the Primary Excavation Director, Jennie Lindbergh. As the site had the potential for state-significant archaeology to be present, the Primary Excavation Director Jennie Lindbergh attended the site on a daily basis to consult with the Secondary Excavation Director and site supervisor, and to provide advice regarding strategies for the archaeological program and to direct excavation of state significant archaeology when exposed.

Guy Hazell, surveyor, set out a site grid, gridded areas of occupation deposit and surveyed all site features which contributed to the plan of the site in its entirety and in accordance with each identified phase of the site. The archaeological field team is outlined in Table 1.1.

Table 1.1 Archaeological field team.

Role	Staff
Primary Excavation Director	• Jennie Lindbergh
Secondary Excavation Director	• Kevin Hickson
Site Director	• Lian Ramage
Surveyor	• Guy Hazell
Planner	• Benjamin Wharton
Archaeologist	• Amelia O'Donnell • Catherine Munro • Jason Giang • Madeleine Rodwell • Robert Williams • Sebastian Loyzaga • Talei Holm • Victoria Cottle • Sarah Rollason • Matt Bryon

1.5.2 Acknowledgements

The TSE and on-site construction team are acknowledged for their interest in the progress and results of the excavations and their invaluable assistance, in particular:

- Robert Muir, JHCPBG Project Environment Manager
- Bobby Saeheng, JHCPBG Construction Manager
- Guy Oosterhoff, JHCBP Engineer
- Members of the construction team, including machine operators and labourers were helpful and interested.

1.6 Terms and abbreviations

The definitions of any abbreviations or specific terms used in the body of this report are provided in Table 1.2.

Table 1.2 Terms and abbreviations.

Abbreviation	Definition
AARD	Archaeological Assessment Research Design
AC	Asbestos cement
AMBS	AMBS Ecology & Heritage
AMS	Archaeological Method Statement
Artefact	Artefact Heritage
CEW	Coarse earthenware
CSSI	Critical State Significant Infrastructure
DP	Dry-pressed brick (machine-made from later nineteenth century)
ED	Excavation Director
FEW	Fine earthenware
Fibro	Fibrolite (AC)
Heritage Council	Heritage Council of NSW
Heritage NSW	Heritage NSW, Department of Planning and Environment
LEP	Local Environmental Plan
LGA	Local Government Area
NSW	New South Wales
OEH	Office of Environment and Heritage
Sands	Sands Sydney Directories 1858/59–1932/3, excluding 1872, 1874, 1874 and 1881
SSI	State Significant Infrastructure
TP	Transfer print
TPQ	Terminus post quem – minimum deposition date
TSE	Tunnels and Station Excavation
WC	Water Closet
MIC	Minimum Item count
MNI	Minimum number of individuals
NISP	Minimum number of specimens

2 Previous desktop investigations

2.1 Sydney Metro Historical Archaeological Assessment and Research Design Report (2016)

The AARD prepared by Artefact identified codes for each of the Pitt Street Station sites. Pitt Street Station south is identified as PS1–PS4 and Pitt Street north as PS5–PS10. The codes for the Pitt Street Station sites that do not have basements are PS1, 302 Pitt Street and PS4, 131–135 Bathurst Street. The analysis of the archaeological potential within the footprint of the Pitt Street Station South site included in the AARD is based on extremely limited historical research and analysis. The assessment of the archaeological potential for PS1 and PS4 contained in the AARD is summarised below in Table 2.1 and Figure 2.1.

Table 2.1 Summary of potential archaeological remains at the Pitt Street South site.

Site code	Phase	Likely archaeological remains	Potential
PS1	1 (1788-1840)	Land clearance, potential for tree boles, charcoal tree remains, isolated artefact scatters and fossilised pollens or other environmental material.	Low
		Land divided by 1820s and structures on the 1823 plan. Potential remains include postholes, brick or stone footings, underfloor deposits, rubbish dumps, wells, cesspits, garden soils, yard surfaces, drains and artefacts	Moderate-Low
	2 (1840-1900)	Single storey brick buildings with rear yards and timber out sheds constructed on site by 1865. Courtyard, stables and toilets in rear yards. Rear yard timber out sheds replaced with brick two-storey premises by 1880. Mixed use commercial premises during this time, including use as a livery stable, coach-making workshops, tailor's premises, and as a tent-makers' workshop. Archaeological potential for brick or stone footings; postholes; underfloor artefactual deposits (glass, ceramic, metal, bone); manufacturing and commercial discarded debris (leather, cloth, wooden and metal artefacts); manufacturing equipment (woodworking and metalworking equipment); rubbish pits, wells, cesspits, yard surfaces, drains (stone and brick).	Moderate
	3 (1900-1950)	19th century brick commercial buildings and rear-yard present until construction of Druid House (six-storey commercial building) in 1928. Potential remains associated with former mid-20th century services and utilities such as drainage pits and pipes. The building is likely to have resulted in localised to moderate levels of impact to evidence of previous phases.	Low
PS3	1 (1788-1840)	Land clearance, potential for tree boles, charcoal tree remains, isolated artefact scatters and fossilised pollens or other environmental material. Three buildings constructed on lot in 1820s; demolished by the 1850s. Residential building with possible garden and/or sheds for minor trades. Potential for timber postholes for building and fences; brick and sandstone footings; underfloor artefactual deposits; cisterns and wells; cesspits; rubbish dumps; field drains; sub-surface plough marks; artefacts	Low
	2 (1840-1900)	Single storey brick building constructed by 1865, used as premises for a carpenter's and undertaker's business. Rear roofed yard and outhouse buildings. Potential for brick and stone footings; postholes; underfloor artefactual deposits (glass, ceramic, metal, bone); manufacturing and commercial debris (wooden and metal artefacts); wells or cisterns; cesspits containing artefact-rich backfills; rubbish dumps; yard surfaces and drains (stone and brick).	Low
	3 (1900-1950)	Construction of three-storey newspaper printers and commercial office in 1905, location of the Worker newspaper printing office. Potential for brick footings, drains, yard surfaces and artefact deposits.	Low

Site code	Phase	Likely archaeological remains	Potential
PS4	1 (1788-1840)	Land clearance, potential for tree boles, charcoal tree remains, isolated artefact scatters and fossilised pollens or other environmental material.	Low
		Three buildings constructed on lot in 1820s; demolished by the 1850s. Residential building with possible garden and/or sheds for minor trades. Potential for timber postholes for building and fences; brick and sandstone footings; underfloor artefactual deposits; cisterns and wells; cesspits; rubbish dumps; field drains; sub-surface plough marks; artefacts.	Moderate-Low
	2 (1840-1900)	Two single storey brick commercial buildings facing Bathurst Street frontage built in 1850s; rear yard containing two two-storey brick out-buildings, two single storey timber out-sheds; constructed by 1865 and still present in 1880. Mixed use commercial premises during this time (grocers, cabinet makers, tailors, hairdressers, leather workers). Archaeological potential for brick or stone footings; postholes; underfloor artefactual deposits (glass, ceramic, metal, bone); manufacturing and commercial discarded debris (leather, cloth, wooden and metal artefacts); wells or cisterns; cesspits containing artefact-rich backfills; rubbish dumps; yard surfaces and drains (stone and brick).	Moderate-High
	3 (1900-1950)	Construction of three-storey Victorian Italianate building before 1910 with three commercial premises. Potential for archaeological remains of the initial services and utilities, such as drainage pits and pipes. The construction of this building is likely to have resulted in localised impacts for footings.	Low

Figure 2.1 Areas of archaeological potential and significance within the Pit Street South site (Artefact 2016b: 220, Figure 8-24).

2.1.1 *Statement of archaeological significance*

The AARD prepared by Artefact provides the following statement of archaeological significance for the site:

> *The Pitt Street study area has the potential for both local and State significant archaeological resources. The potential archaeological resources of the Pitt Street study area relate to the earliest European settlement of Sydney. Located within the Tank Stream catchment and initially on the edge of the embryonic colonial town, the area began to be developed in the 1820s following an influx of free settlers. With Pitt Street and allotments formalised by the early 1830s, several buildings occupied the sites. Granted to free settlers and emancipated convicts, the area developed as a commercial hub with various businesses, trades and residential properties. The potential archaeological resources could provide evidence of the urbanisation of Sydney, evolution of construction techniques and use of local and imported building materials, living and working conditions of the working and middle class city dwellers, lives and status of women and children, local economies and trades. Results of archaeological investigations and artefacts recovered from the sites could provide engaging material evidence for heritage interpretation and connect the public to the history and values of the place.*
>
> *Potential archaeological remains associated with post 1900s development (Phase 3 and Phase 4) are unlikely to have research potential and would not meet the threshold for local significance* (AMBS, 2017).

The assessment of significance of the archaeological potential of PS1, PS3 and PS4 is tabulated in Table 2.2.

Table 2.2 Summary of the potential for significant archaeology in the Pitt Street south site (Artefact 2016:218, Table 8-4).

Code	Phase	Potential	Archaeological resource	Significance
PS1	Phase 1 1780-1840	Low - Moderate	Evidence of natural environment and land clearance, and 1820s/1830s development and occupation	State
	Phase 2 1840–1900	Moderate	Evidence of urban redevelopment, commercial and residential occupation	Local
PS3	Phase 2 1840–1900	Low	Basement data not available. Potential for truncated or localised remains associated with urban development and occupation	Local
PS4	Phase 1 1780-1840	Low - Moderate	Evidence of natural environment and land clearance, and 1820s/1830s development and occupation	State
	Phase 2 1840–1900	Moderate - High	Evidence of urban redevelopment, commercial and residential occupation	Local

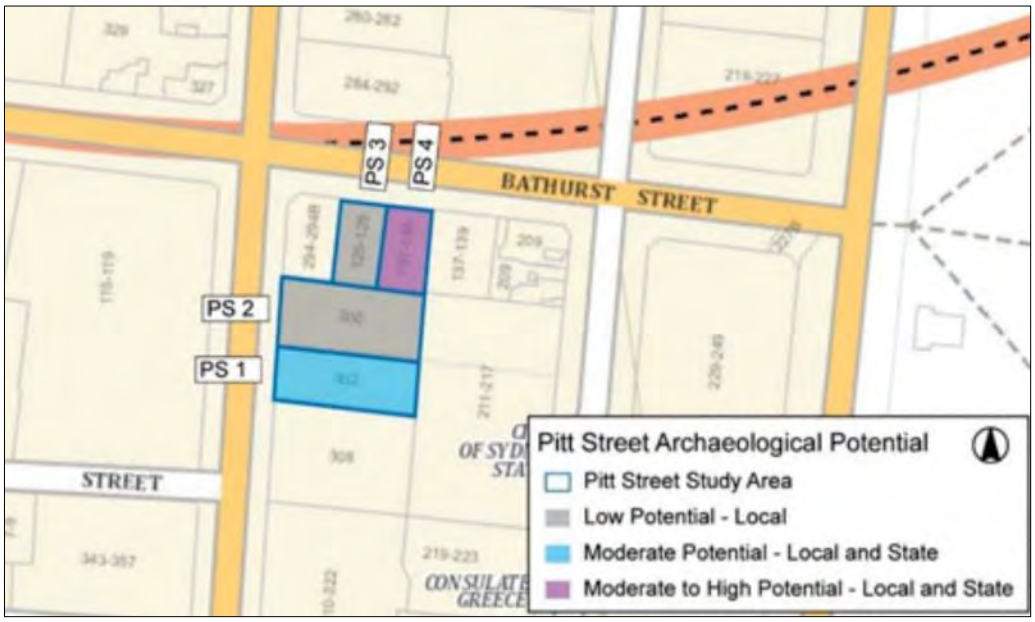

Figure 2.2 Detail plan showing the levels of archaeological significance by coded area (Artefact 2016:219, Figure 8-23).

2.2 Sydney Metro, City & Southwest Archaeological Method Statement for Pitt Street Station South (2018)

The AMBS AMS was prepared to respond to comments by the Secretary and Heritage Council in submissions on the EIS requiring that a revised and more detailed research design was prepared. The AMS identified an appropriate strategy for managing any significant archaeological resource or relics in the southern entry sites to Pitt Street Station. Summaries of the archaeological potential for PS1, PS3 and PS4 have been summarised below.

2.2.1 PS1: summary

The earliest indications of structures are two buildings that appear in PS1 on 1823 Harper's plan, which by 1831 have been supplemented by an irregular cluster of buildings. Hallen's 1831 plan of the lot seems to indicate that one of the original buildings is extant, but that the other has been removed (Figure 2.3). In 1841, PS1 is purchased by John Jones, a cheesemaker, and is described as being occupied by *Messuages tenements and dwelling houses* which in the 1845 Rates Assessment are described as three buildings: a single-storey four-roomed brick house, a two-storeyed two-roomed stone stores and a wood kitchen, each being shingled. By 1847 the buildings have extended to *several Messuages tenements and dwelling houses,* perhaps indicative of the growing success of the business as they likely housed the mason's works employees and families. Although this indicates that the density of buildings has increased since 1831, by the 1865 Trigonometric Survey of Sydney the layout has become regular with buildings surrounding a central courtyard. This layout no doubt reflects the requirements of the monumental mason's works. The monumental mason and sculptor William Patten held the lease from at least 1851 until 1903, after which all buildings were demolished, and a multi-storey warehouse was built on the site. The layout of the site depicted in the 1865 map remains unchanged in Percy Dove's 1880 Plan with the brick house that has been standing on the site since 1823, though perhaps extended and with the addition of a verandah. Dove's plan also identifies an Enclosure in front of the house on Pitt Street,

which may indicate an area for storing the raw stone to be worked (Figure 2.4). However, the plans give no real indication as to the function of the various buildings and the operation of this early atelier and industrial workshop.

The construction of Welsbach House in 1908 for the Welsbach Lighting Company of Australasia Ltd, the modifications to the building in 1917 for Australian Feature Films Ltd as Paramount House, and then changes associated with the occupancy of Druids House by the Ancient Order of the Druids in 1926, did not include a basement. As such the underlying archaeology may not have been greatly disturbed.

The potential archaeology within PS1 is likely to comprise structures shown on the early maps and plans of the site (Figure 2.3 and Figure 2.4):

- Evidence of the first land management of tree clearance, burning-off and stripping the soil may be present beneath or associated with the earliest structures on the site. Analysis of the soils and pollens will provide an insight into the early landscape and vegetation.
- Foundations and underfloor occupation deposits, containing artefacts of everyday life, associated with the brick house at the northern boundary indicated on Harper's 1823 map, along with evidence of extensions as indicated on the 1865 and 1880 maps, prior to its demolition in 1903.
- Similar physical remains associated with the stone messuages tenements, likely to be the long narrow building at the northern boundary built in 1841, extended by 1847 presumably to house workers and their families and also demolished in 1903.
- Workshop, studio, storage area, associated with the activities of the monumental mason and sculptor and likely within the L-shaped timber Shed (workshop) in the north-east corner of the lot and the stone building in the opposite corner identified as Patten sculptor (studio) on the 1880 map.
    - Physical evidence of the studio will likely comprise its stone foundations. It is unlikely that the studio had a timber floor, but it is likely that fragments of stone will be present. There may also be some evidence of the mason's work practices mislaid tools such as hammers, chisels, scutch combs and points may be recovered.
    - Physical evidence of the workshop will be post-holes and wall slots defining its footprint and any internal divisions. There will also likely be fragments of worked and unworked stone and tools.
- The workshop and studio are set-out around the central courtyard, which likely served as a work area for large works and may have been roofed so that it would be functional year-round. Within this area there is potential that larger sculptural and architectural fragments may be extant.
- The courtyard and the entry from Pitt Street may have been surfaced to provide a good access from Pitt Street. Surfacing may be little more than tamped earth, cobbles or paving. There may also be evidence of a fence line as a series of post-holes, or a wall of which the foundations may be present.
- Archaeological features, deposits and relics should provide an indication of the function of the Enclosure depicted on Percy Dove's plan of 1880.
- The contents of rubbish pits and cesspits which will provide information regarding the daily life and activities of the monumental mason's works.

- Analysis of the contents of cesspits will provide information regarding the diet of the people living and working at the monumental mason's workshop.
- It was not until 1857 that an oviform sewer was laid along Bathurst Street and two years later in 1859 that water was reticulated to Castlereagh Street. There is potential for a well/cistern and at least one, if not two, cesspits to be present which may contain artefacts associated with the life and work on the site.

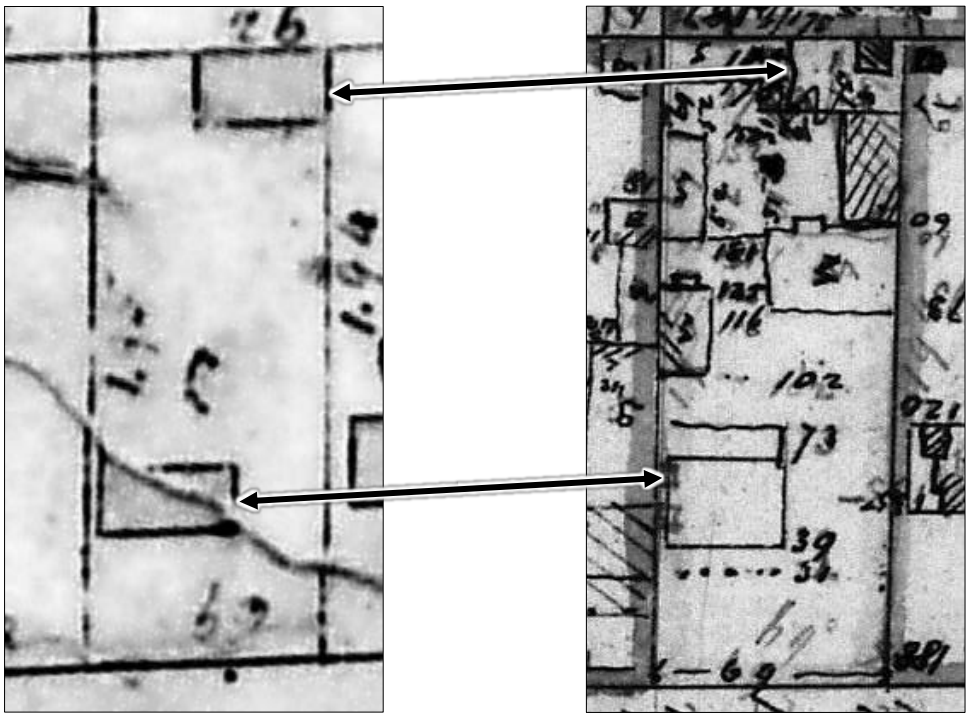

Figure 2.3 Detail from Harper's 1823 map (left) and Hallen's 1831 plan. The house is extant but the building in the south-east corner has been scribbled over indicating that it has been removed and a smaller structure erected in the corner of the lot.

Figure 2.4 Detail from the 1865 Trigonometric Survey of Sydney (left) and Percy Dove's 1880 Plan (refer to Figure 3.7 and Figure 3.8). The brick house appears to have been rebuilt or enlarged. There is a cesspit indicated on the 1865 plan (arrowed). (North is to the left).

2.2.2 PS3: summary

There are no buildings indicated on PS3 of Section 14 on Harper's 1823 or Stewart's c.1826 maps, nor Hallen's 1831 sketch plan. The earliest reference to a building on the lot is in 1834 when a brick building is noted as present in Edward Flood's lease and release documents. The house is described in 1845 as a two-storey nine-roomed brick house with shingled roof and one-room single-storey brick and shingled *kitching*. The building remains standing until 1905, by which time one outbuilding has been identified as a two-storey brick stables and another outbuilding may be a coach house, mentioned in the 1863 Rates Assessment. The shingled roof is replaced with iron in 1882. Between 1865 and 1880, an iron roof is covering the yard, the WC identified in south-east corner on the 1880 plan is also present in 1865 and likely is the location of a cesspit serving the 1834 house.

In 1905, the new *Worker* newspaper office building was built over the houses on the site. The building had a basement which covered approximately half of the lot. The footprint of the basement is such that the brick house, standing on the site since 1834 has been removed (Figure 2.5). As such, the potential archaeology within PS3 is likely to comprise:

- Brick or stone foundations associated with the two-three brick and stone outbuildings, including stables.
- Yard and stables surfaces.
- Possible underfloor deposits associated with the eastern outbuilding.
- WC/cesspit and much of the yard may have survived.

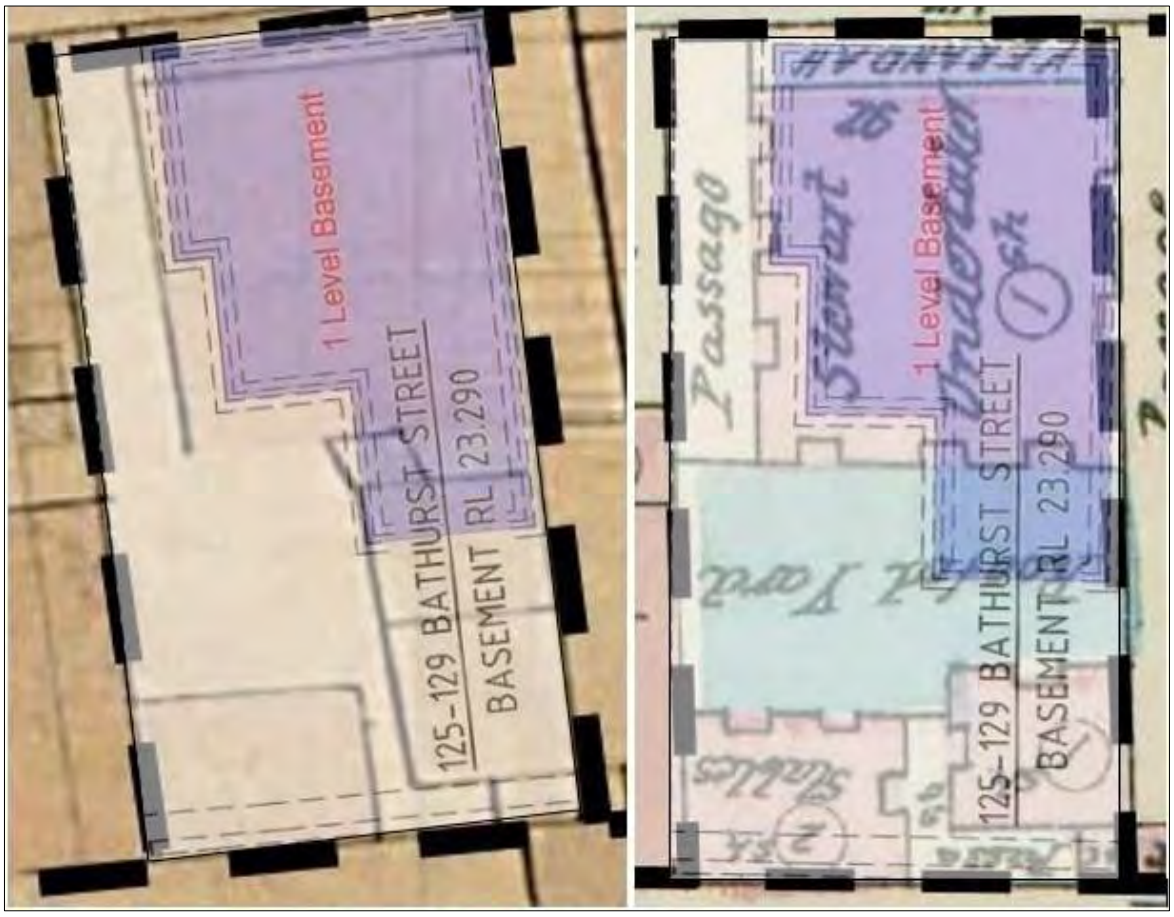

Figure 2.5 Detail from the 1865 Trigonometric Survey of Sydney (left) and Percy Dove's 1880 Plan. The footprint of the basement surveyed are shown.

2.2.3 PS4: summary

The earliest buildings indicated on PS4 appear in c.1826: a house addressing Bathurst Street, a building in the south-east corner and a cesspit in the opposite corner of the property (Figure 2.6). Although these are the earliest recorded buildings on Reuben Hannem's Lot 14, it is known that he had been operating the Red Cow public House since at least 1823 on the corner of Castlereagh and Bathurst Streets. In 1832, Reuben Hannam gifted land to his son-in law Edward Flood on which he has already built *a good and substantial cottage Messuage or Tenement Dwelling house and premises.* The good and substantial cottage is likely to be the same building addressing Bathurst Street in Knapp's c.1826 plan, whereas the messuages or tenement dwelling house is less certain but may be the building against the southern boundary, which has been extended. However, the alignment of this building in Hallen's 1831 sketch plan indicates that this is unlikely as the alignment of the building is rotated in his plan and as such is more consistent with the later tenement dwelling, Louisa Terrace. In 1853, Thomas Clare acquires the property, at which time the cottage has been noted in lease transfers and in the Rates Assessments as a six-roomed brick house and a shop next to the cottage. This may indicate that the original house has been replaced by the house and shop. At the rear of the lot the tenement, Louisa Terrace, has been extended by 1858.

The cottage and shop, as well as the tenement, are depicted on the 1865 Trigonometric Survey of Sydney plan and Percy Dove's plan of 1880. However, the tenement at the southern boundary

remains, albeit extended to occupy the width of the lot with what seems to be the original cesspit at the south-west corner. The cottage at the front of the lot has been replaced by the house and shop noted in the 1848 Rates Assessments. In 1881, Louisa Terrace is condemned and demolished and in 1882 the house and shop have also been demolished and replaced by a Victorian Italianate terrace row of three shops with residences above.

The potential archaeology within PS4 is likely to comprise structures shown on the early maps and plans of the site (Figure 2.6 - Figure 2.7):

- Evidence of the first land management of tree clearance, burning-off and stripping the soil may be present beneath, or associated with the earliest structures on the site. Analysis of the soils and pollens will provide an insight into the original landscape and vegetation.
- Foundations and underfloor occupation deposits, containing artefacts of everyday life, associated with the brick house at the northern boundary indicated on Knapp's c.1826 plan and evidence of extensions as indicated on Hallen's 1831 plan and demolished in c.1848.
- Foundations and underfloor occupation deposits, containing artefacts of everyday life, associated with the 1823 building at the south-west corner and of the brick *messuages tenements*, Louisa Terrace, standing and extended from 1831 until 1881.
- Similar physical remains and deposits associated with Thomas Clare's 1853 house and shop.
- Gardens and rubbish pits associated with the early garbage disposal prior to the introduction of Council garbage removal.
- It was not until 1857 that an oviform sewer was laid along Bathurst Street and two years later, in 1859, that water was reticulated to Castlereagh Street. There is potential for a well/cistern and two, if not three, cesspits to be present which may contain artefacts associated with the life and work of the site. Analysis of the contents of cesspits will provide information regarding diet.
- Physical evidence associated with the terrace row of three shops constructed in 1882 are likely to overlie and to have disturbed the earlier structures but are unlikely to have extensive occupation deposits. Services have been laid on by 1882 so wells and cesspits are no longer used and flooring is tongue-and-groove so underfloor deposits are no longer present.

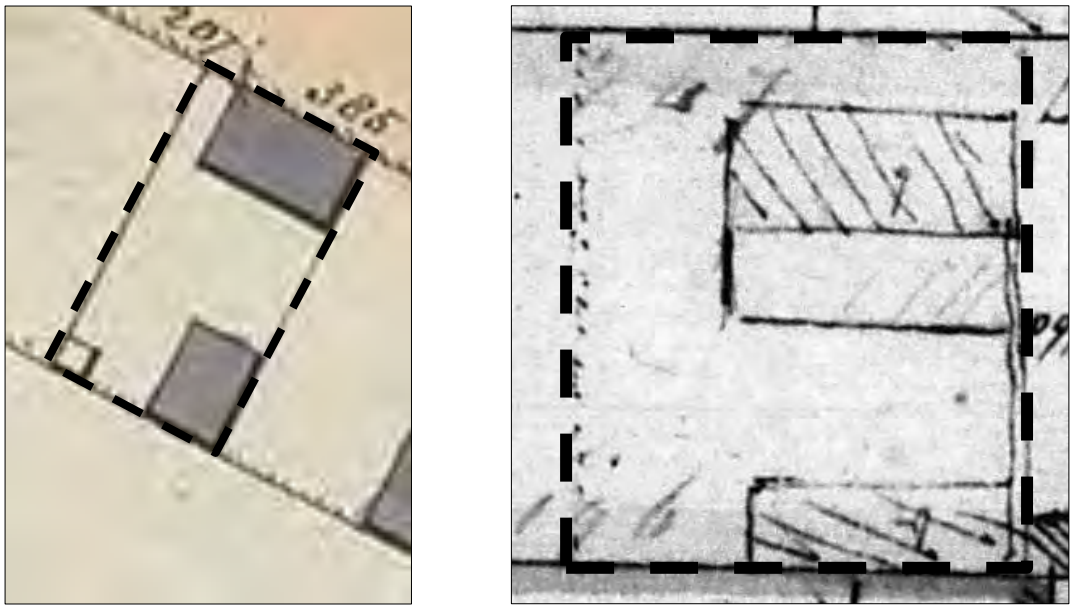

Figure 2.6 Detail from E Knapp's c.1826 plan (left) and Hallen's 1831 sketch plan. Note that the building in the south-east corner has changed its alignment.

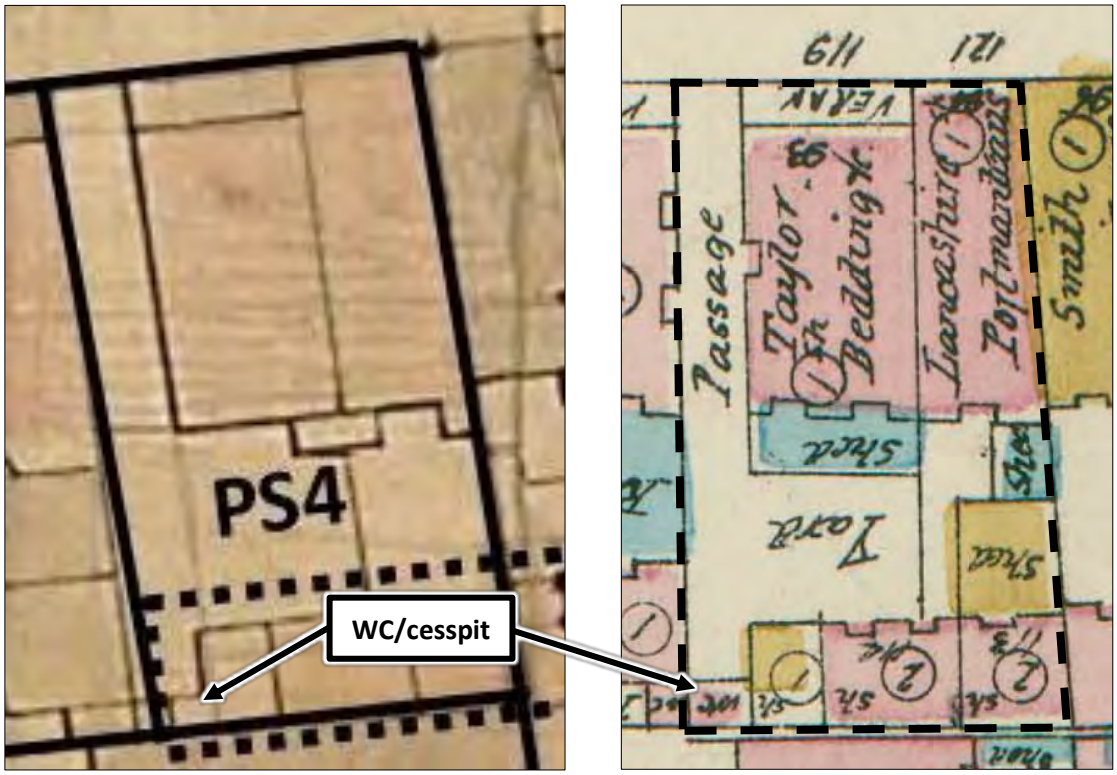

Figure 2.7 Detail from the 1865 Trigonometric Survey of Sydney (left) and Percy Dove's 1880 Plan. The house, shop and Louisa Terrace remain largely unchanged throughout this period.

2.2.4 Archaeological significance of the Pitt Street Station South site

The archaeological significance of the Pitt Street South Station site is summarised in the statement of significance:

> *The archaeological resource in PS1, PS3 and PS4 of the southern entry to Pitt Street Station has the potential to provide information that will contribute to a greater understanding of the historical development of phases of occupation from the 1820s of a small but developing community. Evidence of the processes of landscape modifications prior to the construction of housing in the 1820s may include the remains of burnt-out trees which would contribute to an understanding of the original landscape and vegetation.*
>
> *Physical evidence of houses, shops and a monumental mason's workshop, as well as artefact assemblages from underfloor deposits, cesspits, wells/cisterns and rubbish pits have the potential to provide an insight into population densities, occupations, class, gender and social interactions. Evidence from the archaeological resource of the PS1 and PS4 sites, such as personal and domestic artefacts and masons' tools, has the potential to be compared with the assemblages from sites within the local vicinity and beyond, to contribute to addressing research questions relating to urbanisation, material culture, consumerism, identity, and social interactions within this local vicinity. In addition, comparison of the artefact assemblages from the tenements in PS1 and PS4 would provide an insight into local living and working conditions from the 1830s.*
>
> *The archaeological resource within the PS1, PS3 and PS4 is likely to have a high level of research potential and well-preserved substantive archaeological remains of the 1820s would have state significance* (AMBS, 2017).

2.2.5 Research questions

The following research questions have been developed to inform the archaeological investigations within the footprint of PS1, PS3 and PS4 of the southern entry to the Pitt Street Station site. These will allow for responding to larger research themes relating to consumerism, material culture, urbanisation, and personal and social identity:

Landscape & environmental archaeology

- Is there surviving evidence of the early local landscape and environment, such as early soils, fossil pollens and seeds?
- Is there evidence of early land-use practices including land clearance methodologies, such as was recovered from the 209 Castlereagh Street site and what can this evidence tell us about the modification of the original landscape?

Residential housing, commercial premises and material culture

- What can the construction techniques, size, layout and form of the 1820s, 1830s, 1840s and 1850s houses, shops and commercial enterprises tell us regarding the period of use and areas of activity? How were buildings modified over time and how does this reflect changes of use?

- What can intact occupation deposits tell us about settlement patterns, and domestic and commercial practices of an early developing urban environment? What are the patterns of subsistence and self-reliance and how do they inform us about this local environment and adaptation to it?
- What can the contents of occupation deposits from beneath floors, cesspits, rubbish pits and wells/cisterns (if present) tell us about the daily lives and domestic and commercial practices of the occupants of houses, shops and businesses. How does this compare with artefact assemblages from the nearby similar sites, that may not be available from other sources?
- What can the artefact assemblages tell us about the minutiae of everyday life of the domestic and commercial development of this local area? and of this local community? What do the artefact assemblages from houses and shops tell us about population densities, occupations, class and gender?
- Do the artefact assemblages indicate social interaction with neighbours in the local area?
- What similarities and differences can be discerned between the artefact assemblages from PS1, PS3 and PS4, the 209 Castlereagh Street, No 1 Firestation and 101 Bathurst Street sites and what does this tell us about social standing, economic or employment differences within these sites?

Industrial environments

- What can the form and layout tell us about the operation of a monumental masonry works of the second half of the nineteenth century?
- What do changes in the layout of the site tell us about changing practices within a monumental masonry works throughout the second half of the nineteenth century?
- What is the evidence for changes in use of particular areas and how do these reflect changes in the practice of a monumental masonry works?
- What does the artefact assemblage from domestic contexts tell us about life within the environment of the monumental masonry works? How does the artefact assemblage compare with the artefact assemblages from those sites in the local vicinity and beyond?
- What do tools and fragments tell us about the quality of stone working in mid-nineteenth century Sydney?
- How do the physical remains of Patten's monumental masonry works reflect nineteenth century practice and how does this compare to developments since that time to the present day?

3 Historical background

3.1 Early colonial Sydney

The British colony at Sydney Cove was established along the banks of the Tank Stream, which was the colony's first and main source of drinking water. The stream formed a topographic boundary demarcating housing for different 'classes' of settlers; the governor's residence, provost marshal's tent, general's marquee, storehouses and farming gardens dominated the eastern side of Sydney Cove, while to the west of the Tank Stream lay the Rocks, where the convicts were provided with makeshift accommodation and were overseen by the marine officers and barracks (Casey 2006:88; Godden Mackay Logan [GML] 2013:9). Clay for brickmaking was quarried from Brickfield Hill, and the surrounding landscape was pock-marked with sawyer's pits and felled timber. Plans of Sydney from the late eighteenth and early nineteenth centuries show that the Pitt Street Station south site was at the fringe of the settlement (Figure 3.1 and Figure 3.2). Pitt Row (now Pitt Street) terminated at Bathurst Street, and only a few dwellings dotted the slope down to the Haymarket (West 1988:6; CRM 2001:16). The station site was part of a large and poorly defined area that had been largely cleared and was used as a common for grazing animals and gathering firewood and later, for horseracing, sports, and recreation (CRM 2001:14; HBO + EMTB 2006:3). The land that was to become Hyde Park was cleared of *a wild forest* to create an open space reserved for recreational purposes, in particular horse races with the first race meet held in October 1810 (Figure 3.3). Races were held until 1821, by which time the adjacent areas had begun to be developed with residential housing and public houses (Fowles 1848:69-71).

Figure 3.1 The approximate location of the Pitt Street Station south site on the 1802 *Plan de la ville de* Sydney, *Capitale des Colonies Anglaises Aux Terres Australes* by Jean Baptiste Antoine Cloquet (left), and the 1807 *Plan of the Town of Sydney in New South Wales* by Jas. Meehan (right) (Ashton & Waterson 2000:15, 17).

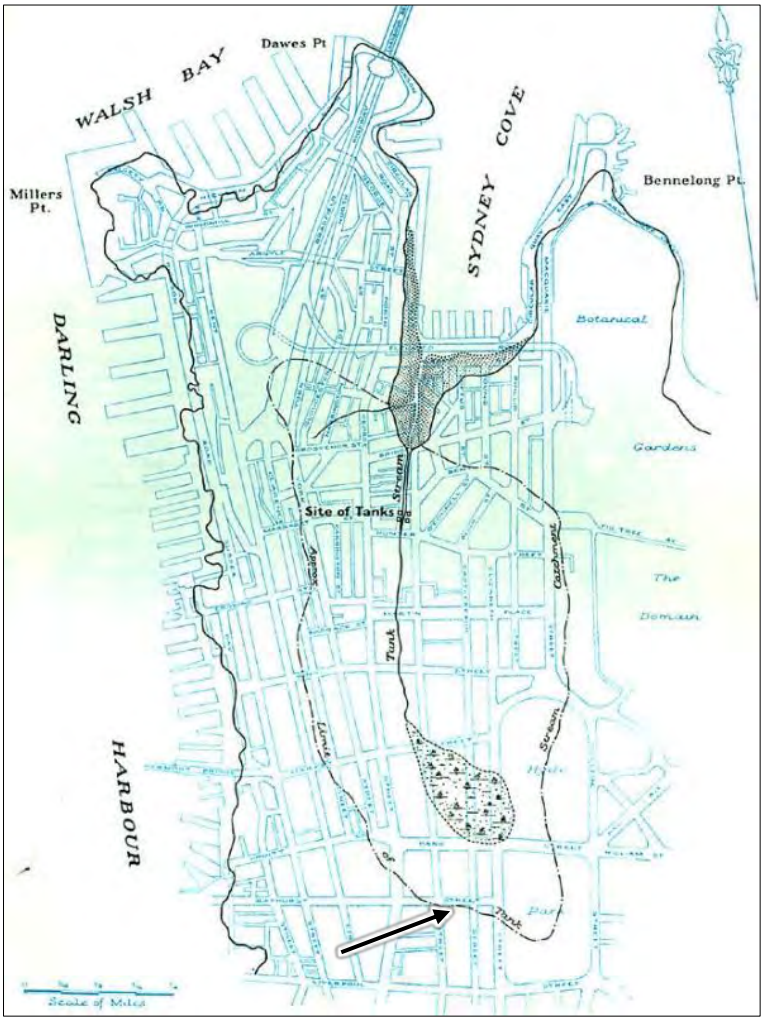

Figure 3.2 Map of Sydney and the Tank Stream catchment area. The location of the southern entry to the Pitt Street Station site on the line defining the limit of the Tank Stream catchment is arrowed (Source: City of Sydney, http://history.cityofsydney.nsw.gov.au/waterexhibition/images/zoom/tank1.jpg.html reproduced from Aird 1961).

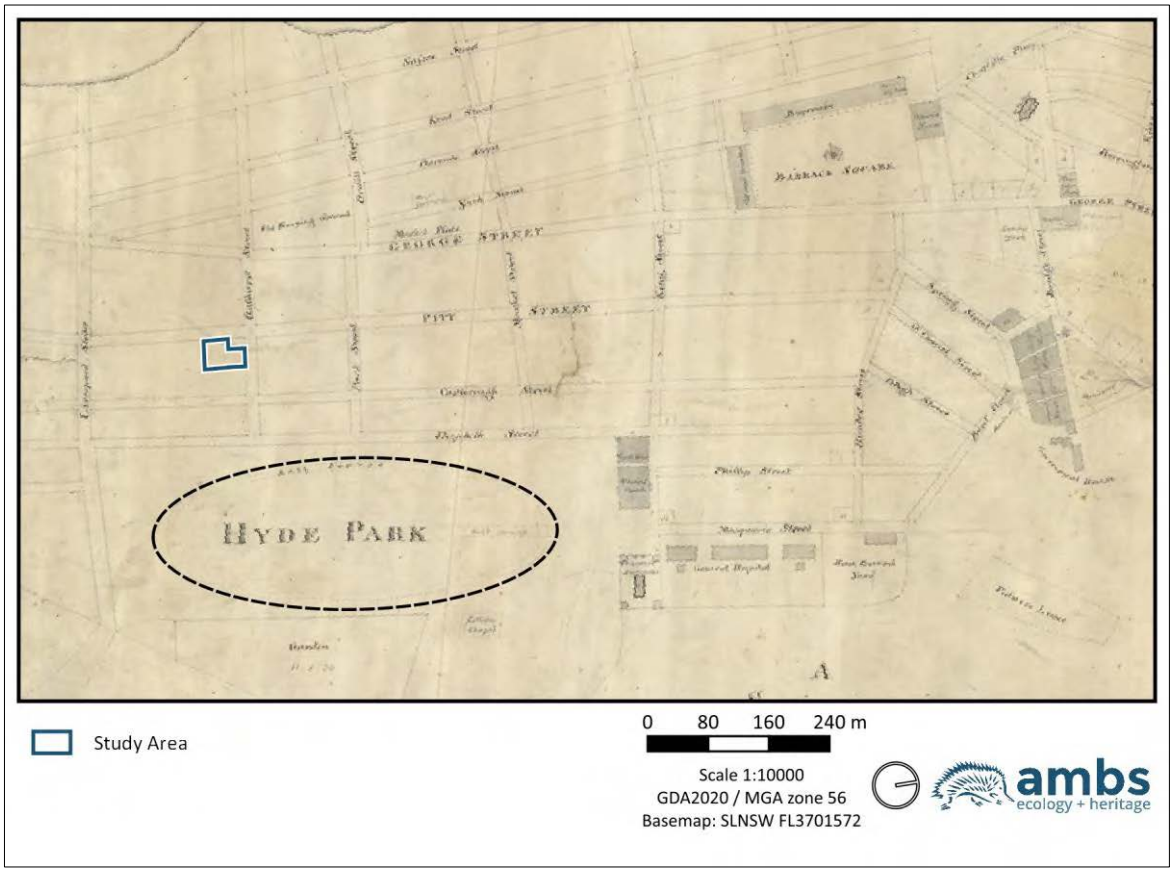

Figure 3.3 Detail from an unattributed *Sketch of the Town of Sydney* dated 1821. The racecourse around Hyde Park is outlined in black, a road leading into the centre is identified as *Road forming*.

3.2 'Wooden huts and temporary cottages'

For the first 20 years, urban development of the colony was haphazard, but from 1809 Governor Macquarie set about a program of civic improvement. Roads were widened, re-aligned and renamed and the township extended southward (GML 2013:9-10).

By the early 1820s, portions of the former common and recreation grounds at the southern end of the city had been divided into town blocks, the principal streets had been extended, and houses and shops were built on the blocks. Throughout the 1820s and 1830s, the southern area of the city developed as a location for small traders. Whilst no formal arrangements were made, these properties were likely rented for a nominal fee and were quickly developed by entrepreneurial tenants. During 1829, Governor Ralph Darling offered land grants in the southern part of the town, partly to encourage building and also to regularise the often-ramshackle division of allotments. An undated map of the Parish of St Lawrence indicates that the block of land grants bounded by Pitt, Bathurst, Castlereagh and Liverpool streets was divided distinctly more symmetrically than most neighbouring blocks. The area was described as being occupied by a *great number of wooden huts and temporary cottages, which were however rapidly giving way to buildings of a more substantial nature* (Maclehose 1839:73). The buildings were still surrounded by large areas of vacant land and yard space. William Harper's plan of 1823 records that Section 14, including PS3 and PS4, on Bathurst Street and Section 15 (PS2) on Pitt Street, are unoccupied, whereas Section 16 (PS1) Pitt Street is sparsely occupied, with two structures (Figure 3.4 and Figure 3.5).

Limited services were provided for tenants and living and working conditions were considered poor. The completion of Busby's Bore in 1844 brought a reticulated water supply to the streets of Sydney, though few houses had water laid on. Most collected water from standpipes or fountains in the street until 1858, when a water pumping scheme was implemented (HBO + EMTB 2006:S-24). Overcrowding, poor, or non-existent sanitation and drainage, little ventilation, unsatisfactory sleeping accommodation, contaminated water and food supplies and ramshackle housing were just a handful of the conditions faced, but little was done to alleviate these problems. In 1857 an oviform sewer was laid along Bathurst Street and in 1859 water was reticulated to Castlereagh Street, both of which services would have improved the standard of living for those living in the local area.

Figure 3.4 Detail from Harper's 1823 Map of Sydney. Note that the Bathurst Street frontage is vacant; however, there are two buildings on the PS1, 302 Pitt Street site.

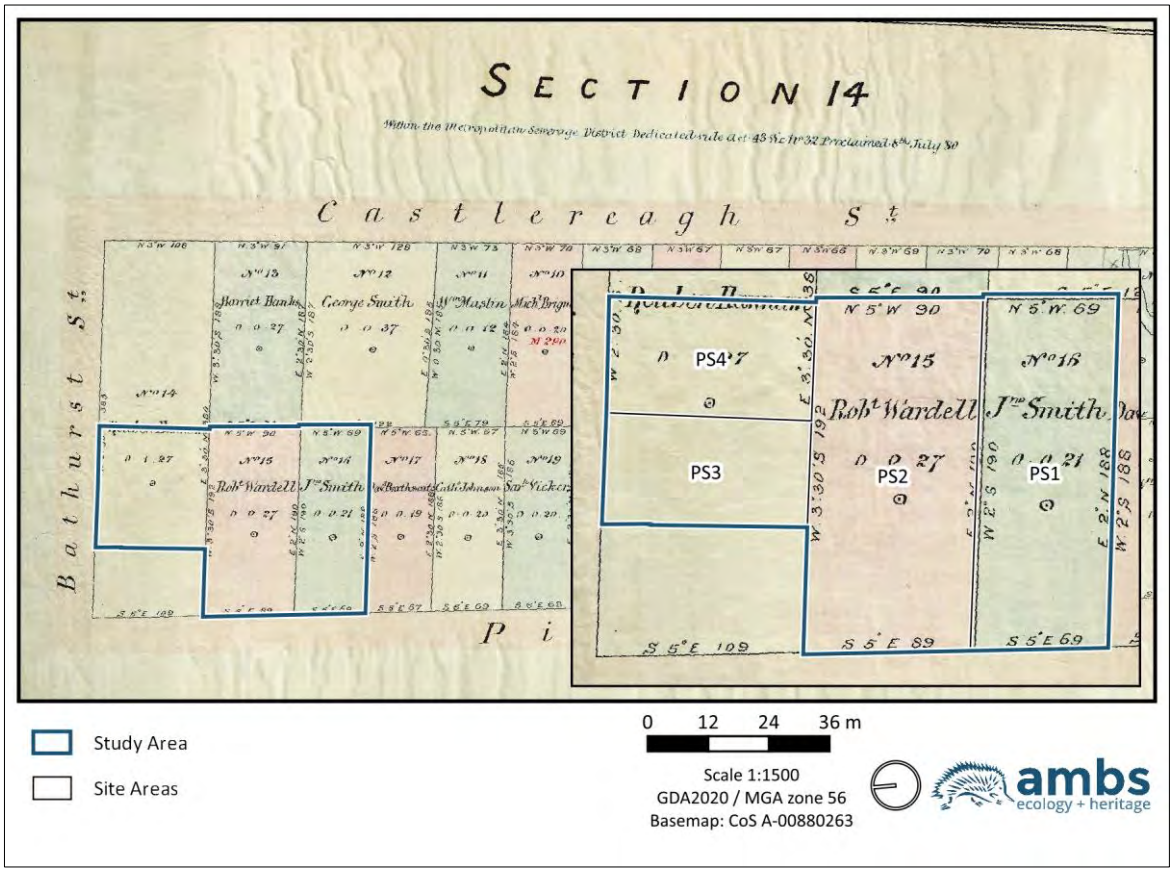

Figure 3.5 Section 14 of the 1833 City Section Survey Plan with the outline of the Pitt Street Station South site and inset detail.

3.3 Section 14 Allotment 16 – 302 Pitt Street (PS1)

The first recorded activity on Lot 16 of Section 14 was on 30 June 1823 when John Smith was granted a 21-year lease of 21 roods on east side of Pitt Street (Grants, Volume 23 No 230, LRS). On 19 October 1831 Smith was granted 21 perches bounded on the west by Pitt Street 69 links, on the south by lot 17 188 links, on the east by lot 12 69 links, on the north by lot 15 190 links (Grants, Volume 49 No 311, LRS). Although there are no attached maps to indicate whether Smith constructed buildings on the land, two buildings are shown on Harper's 1823 Map of Sydney (Figure 3.4). Also, a sketch plan in Ambrose Hallen's fieldbook, of September 1831, shows various buildings on Lot 16 Section 14 (NRS 13889, Surveyor-General, Field Book No 347, A Hallen, 1831, SANSW 2/5195). Hallen's plan shows the lot as densely occupied by an irregular collection of buildings, possibly including the two buildings shown on Harper's 1823 map; however, the building in the south-east corner may have recently been demolished as its outline has been scribbled over (Figure 3.6). In October 1831, John Thomas Smith died intestate and John Edye Manning was appointed administrator of his estate.

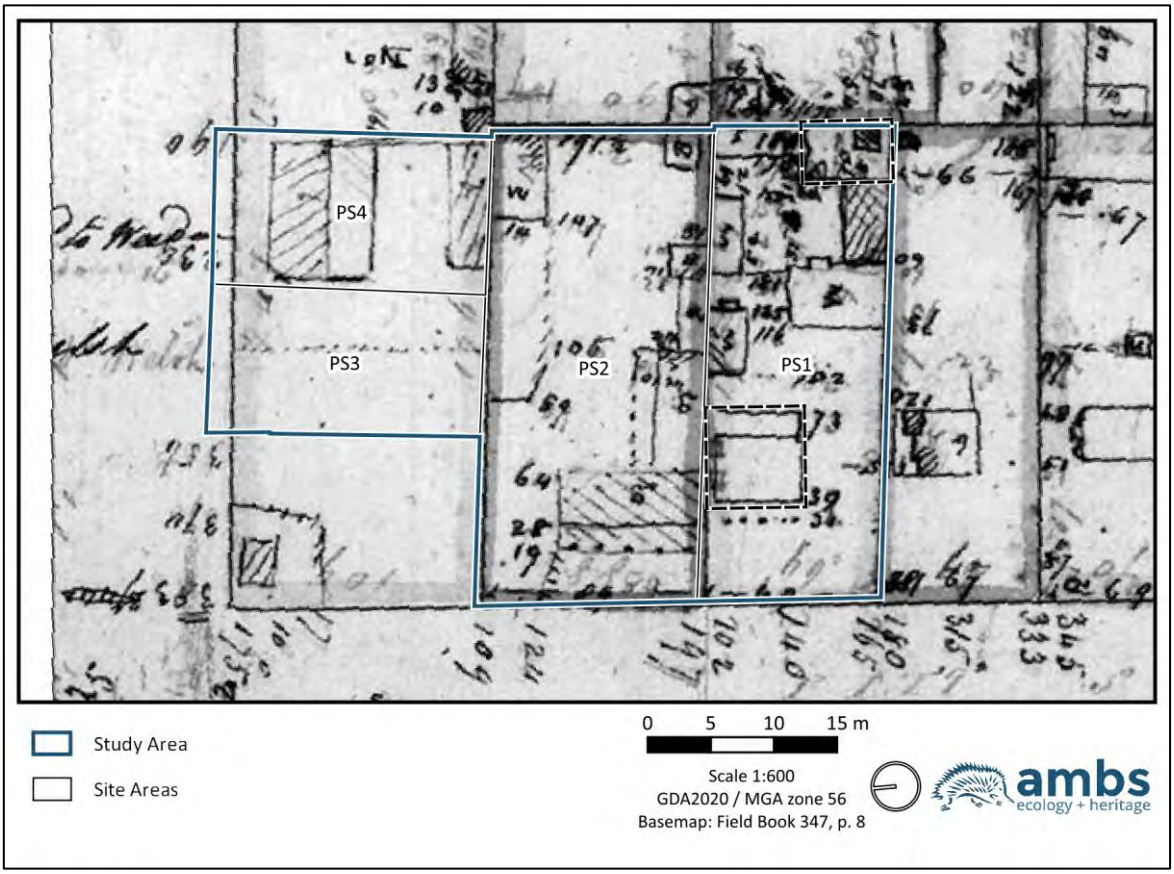

Figure 3.6 Page 8 of Ambrose Hallen's field book of 1831 with Lot 16 of Section 14 (PS1) and the two buildings on Harper's 1823 map, that may be extant, outlined in black.

On 24 November 1836 through a series of leases and releases the property changed hands; first to Stephen Gane, Brixton, Co Surrey, England, gardener and wife Jane; Edward Smith, Token House Yard, London, gent; John Edye Manning, Sydney, esquire. Recited with the reference to Manning, is the fact that Stephen Gane was John Thomas Smith's heir, and who owed £110 to Edward Smith and £387 to John Hunter. The Property was transferred to Manning *who will sell to realise value* (Copy in NRS 17513, Land Titles Office, Real Property Application Packet, RPA 12668, SANSW).

Manning released the property to a Miller of Sydney, John Hill for £100 on 16 October 1840 (OSD, No 460 Bk T). Some twelve months later the land was again leased and released, first to John Hill, a miller, second to John Jones, a cheesemaker at the Butter Market, Sydney, and third to John Edye Manning, esquire. The land with *Messuages tenements and dwelling houses* was purchased for £1,000 by John Jones (OSD, No 76 Bk Y). On 29 May 1847, the land now described as occupied by *several Messuages tenements and dwelling houses* was mortgaged by Jones and his wife Ann of Pitt Street to Arthur Little, gentleman of Sydney, for £200 for 1 year at 10%, with an additional loan of £100 (OSD, No 908 Bk 12; OSD, No 512 Bk 18). The entry for the property in the 1845 Rates Assessment describes John Jones as having three buildings: a single-storey four-roomed brick house, a two-storeyed two-roomed stone stores and a *wood kitching* each being shingled, with an annual value of £75. These buildings are no doubt those indicated on Hallen's plan. On 15 October 1850, John Jones and his wife reconveyed the mortgage to Eleanor Terry, widow of Woolloomooloo, John Richard Rouse, of Bathurst and George Rouse, of Rouse Hill, for £450 for 5 years at 9% (OSD, No 512 Bk 19).

From April 1851, William Patten occupied the land as a monumental marble mason's works and dwelling as tenant of John Jones. He arranged to buy the property from Jones in about 1860 but the conveyance was not finalised for some years since Jones was overseas (Stat Dec, John Dawson, Pitt Street, solicitor, 13 Aug 1894, in NRS 17513, Land Titles Office, Real Property Application Packet, RPA 12668, SANSW). The Rates Assessments for 1861 shows Patten as the tenant of the stone house and shop with kitchen, now valued at £100, and the owner as WW Billyard. Francis George Patten, son of William Patten, thought his father had occupied the land since 1853 (Stat Dec, Francis George Patten, 302 Pitt, gentleman, 11 Aug 1894, in NRS 17513, Land Titles Office, Real Property Application Packet, RPA 12668, SANSW). This is confirmed by the entry in the 1852 Rates Assessment, where Patten is recorded as the tenant to John Jones in a stone house valued at £55. On 19 June 1868, the land is conveyed by John Jones, landholder and wife Ann, to William Patten, marble and stone mason for £600, but it is still subject to the existing mortgage (OSD, No 860 Bk 108). In 1835, Patten had established a workshop at 100 Pitt Street, as *Messrs Clewett and Patten*, marble masons operating the *Australian and Italian Marble Works* on Pitt Street that year (*Sydney Herald*, 27 April 1835:3). As indicated in the 1865 Trigonometrical Survey of Sydney, when Patten acquired the Pitt Street lot in 1868, the layout appears little changed since Hallen's 1831 plan (Figure 3.7).

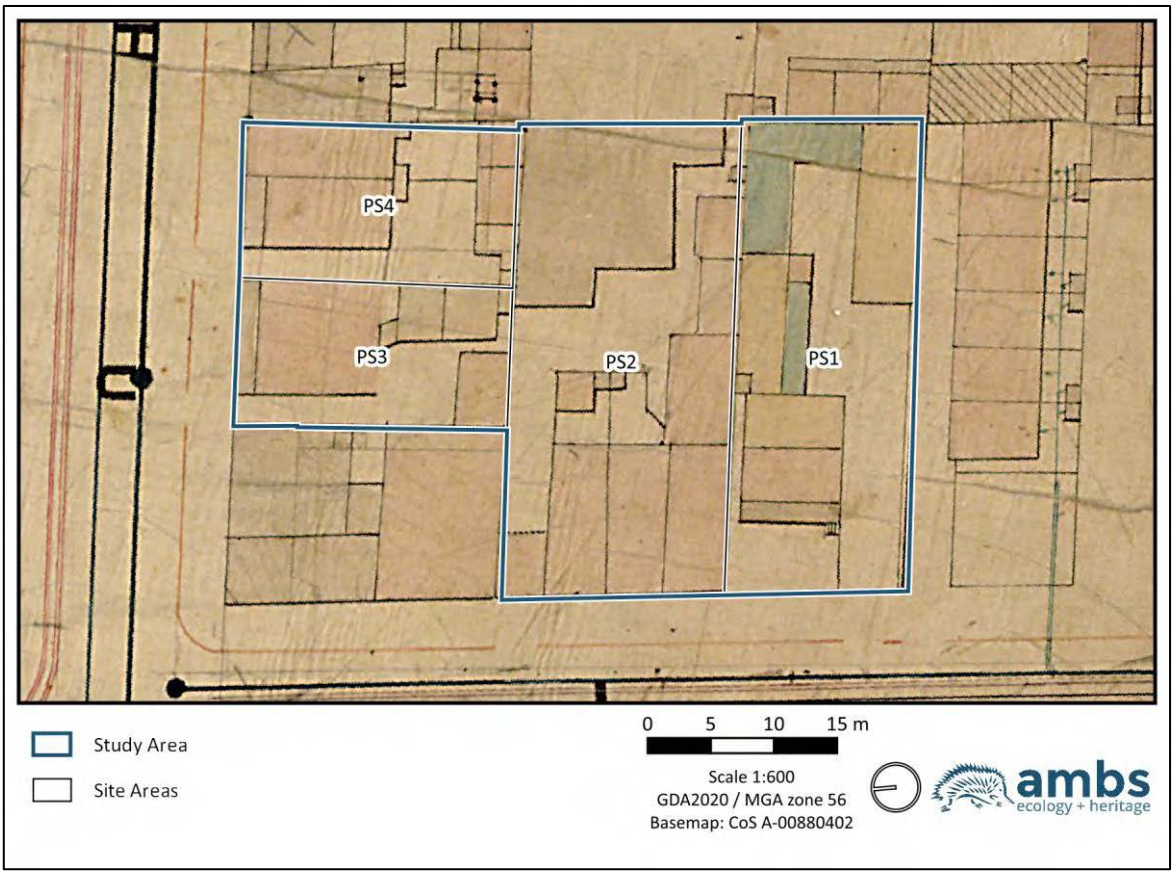

Figure 3.7 Detail from Block O2 of the 1865 Trigonometric Survey of Sydney with the study area outlined. The layout of PS1 is much the same as indicated in Hallen's plan above (colours identify primary construction materials: pink - brick, yellow – stone, grey - timber).

Patten's wife and two sons inherited the property on his death in 1874 and on 24 July 1878, Rouse reconveys the property to Francis George and William Patten (OSD, No 638 Bk 182). Francis George and William continued the family business, trading as *Patten Brothers, Monumental Masons and Sculptors. Established in 1835*. Again, the layout of the lot is unchanged as shown in Percy Dove's 1880 plan, which also identifies a single-storey brick building in the south-east as *Patten Sculptor* (Figure 3.8). On 17 August 1894, Francis George Patten and William Patten, monumental masons mortgage the property to James Marks and Theodore John Marks, for £2,500 for 3 years at 6½% (OSD, No 913 Bk 542). In 1900, Francis George Patten died leaving his brother William Patten as his sole heir. On 23 December 1902, the property was leased to David Ross and Henry James Bowman, monumental masons for one year from 1 January 1903 for £119/12/0 per annum with a caveat that the property was to be used only as a monumental mason's yard (Copy in NRS 17513, Land Titles Office, Real Property Application Packet, RPA 12668, SANSW). Ross and Bowman were sculptors specialising in funerary and commemorative monuments who had established their firm in 1877, operating from offices opposite Waverley Cemetery, which had opened that year. On 1 July 1903, William Patten's application for the Certificate of Title for all of lot 16 and part of lot 12 (immediately east of Lots 16 and 17) measuring 20½ perches was issued, which was transferred in August of the same year to Frederick George Fox and Alfred Paine Fox, sanitary engineers, as tenants in common (CT 1476 f 116).

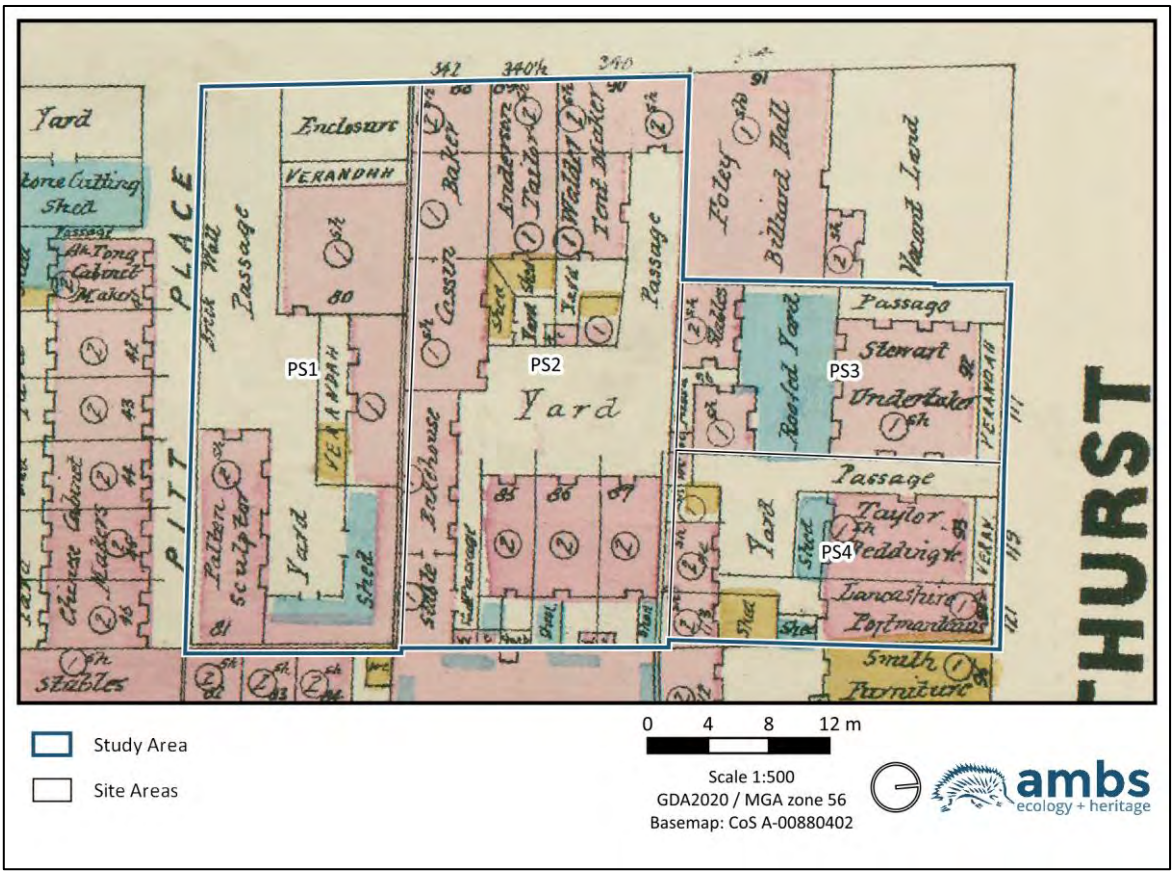

Figure 3.8 Percy Dove's 1880 Plan of Sydney with the study area outlined. The address of PS1 is not shown but based on the adjacent buildings should be 344-346, until the street numbers change in 1880 when it becomes 302. PS1 appears to be little changed since 1831.

In 1908, the lease, and then the Certificate of Transfer, was issued to Robert Wall senior, James Wall, Harry Wall and Robert Wall junior, all contractors of Sydney (CT 1483 f 195-196). Robert Wall senior was one of Sydney's most prolific builders who, with his sons, constructed numerous public and commercial buildings including Culwulla Chambers and the Government Savings Bank, Martin Place (*Building*, 12 March 1926). The Walls leased the site to the Welsbach Lighting Company of Australasia Ltd and constructed a factory and offices for the company (CT 1936 f 156). The Welsbach Lighting Company was founded by Carl Auer von Welsbach, an Austrian chemist famous for inventing the gas mantle in 1885, the metal filament for light bulbs in 1902, and modern fire strikers for lighters in 1903 (Figure 3.9).

Figure 3.9 Advertisement for Welsbach Electric Light from the Barrier Miner (20 July 1910:2; http://nla.gov.au/nla.news-article45134593).

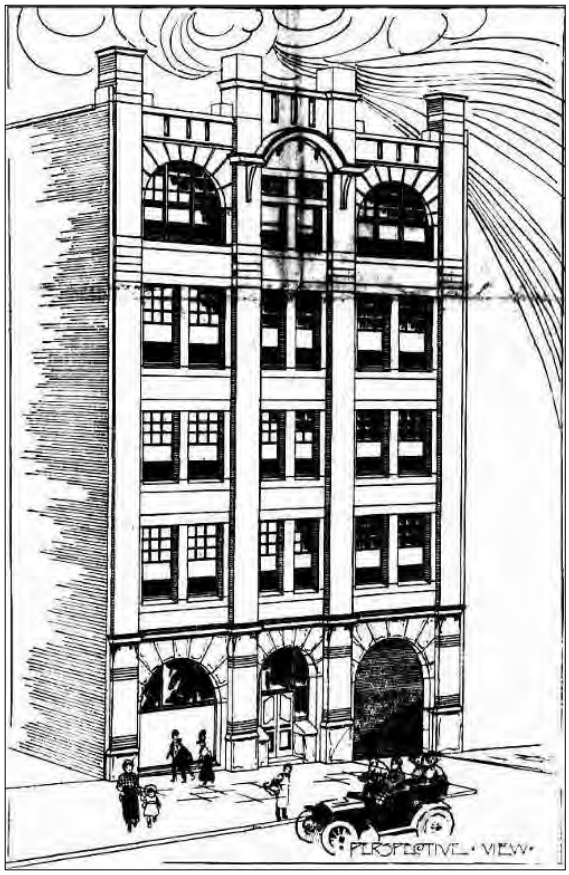

Figure 3.10 The Splendid Warehouse being Erected in Pitt-street, Sydney, for the Welsbach Light Co., of Australasia Ltd (Weekly Supplement to Building Tuesday 6 April 1909:1).

Welsbach House was designed by SH Buchanan, who designed several Sydney factories and warehouses, though domestic architecture was his main work, generally expressed in the contemporary Art & Crafts style. This aesthetic was evident in the cornice and the stone and brick elements of the new five-story building's façade (Figure 3.10). Notable also was the extensive fenestration: *Floods of daylight pour through each floor and every corner is light and airy. It is indeed an ideal construction* (*Lone Hand*, 1 June 1911:180-181). The building's structure comprised:

ironbark girders and story posts, with tallowwood floors (except three bays of the third floor, which are of reinforced-concrete for the machinery)…The ground floor is being used as a showroom, the first floor is apportioned for offices, the second floor for a bulk store, and the upper floors are devoted to factory purposes. The flat roof has a dining-room 30ft. x 20ft. for the factory hands (Daily Telegraph, 28 August 1909:18).

A 1909 article describing a factory visit by 200, remarks on their admiration and astonishment while watching *the delicate and intricate processes involved in the manufacture of the Welsbach [gas] mantle*, which was advertised as *made in Australia, by Australians, for Australians*, and *may be said to control a genuine national Australian industry, and a successful one, since its output, to-day exceeds 1,500,000 mantles* (*Jerilderie Herald and Urana Advertiser*, 26 November 1909:7).

The advent of WWI saw the end of the Welsbach Lighting Company's activities in Australia. The Austrian origin of the company was such that it was prohibited under the *Trading with the Enemy Act 1914* (*Commonwealth of Australia Gazette*, September 18 1915:2345). Despite an appeal to the High Court the company's lease on Welsbach House was forfeited. At the time the site was owned by Wallace John Carson, a partner in D'Arcy & Co. wine and spirit merchants (LTO Transfer 549769, 28 December 1909). On his death, Carson was revealed to be a reclusive bachelor and one of the richest estates ever submitted for probate (for example, *Argus*, 27 July 1937:8).

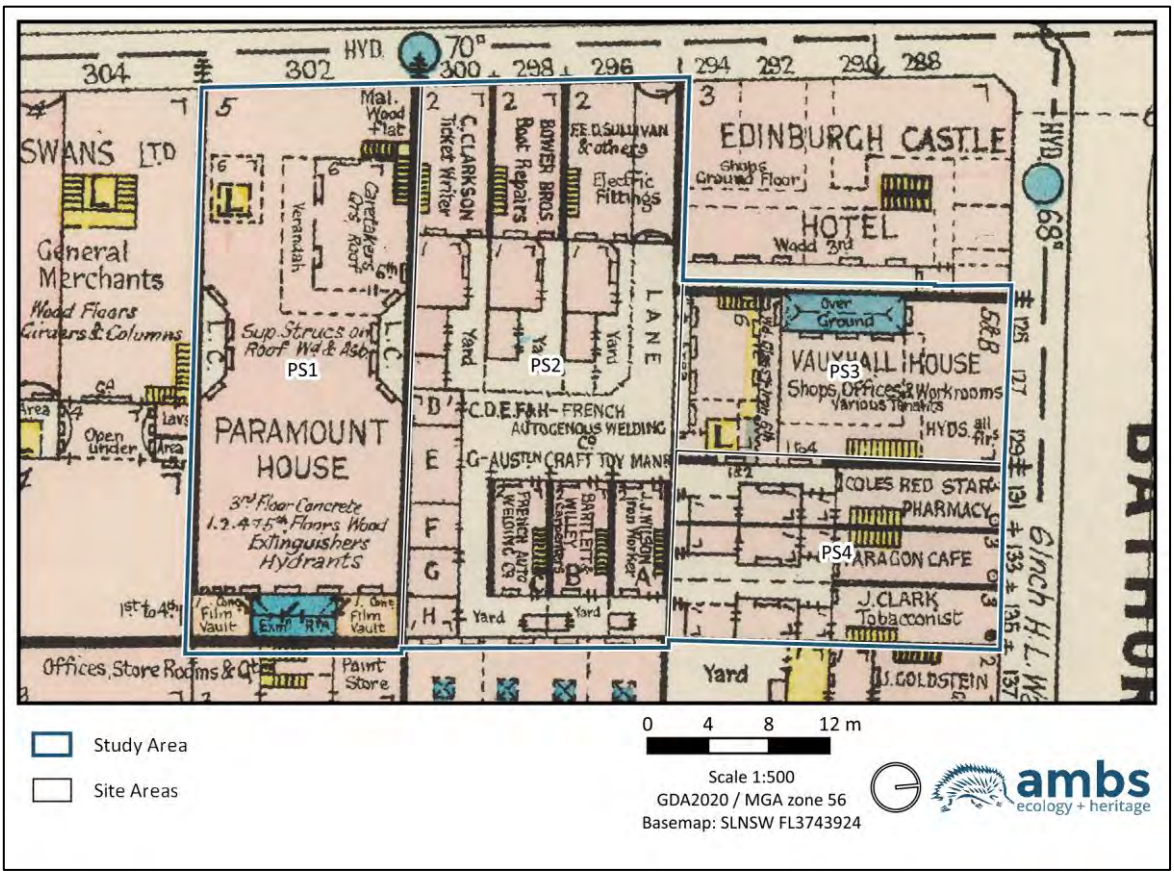

Figure 3.11 Pre-1924 Block 168-170 Fire and Accident Underwriters Association of New South Wales plan by Thomas Murray, 1919-1940. The entire footprint of PS1 is now occupied by Paramount House (formerly Welsbach House).

On 31 October 1917, the property was leased to Australian Feature Films Ltd (CT 1936 f 156). At the time, Australian Feature Films Limited had recently become the Australian agent for Paramount Pictures and was in need of new storage and office premises after a fire at its Castlereagh Street address (Melbourne *Herald*, 27 August 1971:1). The building is now recorded in the Sands Directory as Paramount House which is described in the 1921 Rates Assessments as a brick warehouse with five floors and an iron roof valued at £1464. In 1919, the lease was held by Robert C Swan & Co Ltd, mortgaged to the Commonwealth Bank of Australia, discharged in 1926, when the company is known as Swans Ltd (Swans Ltd). On 12 March 1926, a few days after the mortgage was discharged, the lease is transferred to William Thomas Willington, silversmith of Arncliffe, George Watt, clerk of Harris Park, Thomas Ellis Coulson inspector of Randwick as joint tenants (trustees for Society of Druids), reserving easements as shown on plan (CT 1936 f 156). The Ancient Order of Druids was founded in London in 1781 based on the principles of justice, benevolence and friendship, with the Australian branch founded in 1851 in Melbourne. The building is recorded in the 1928 Sands Directory as the Druids Building and as Druids House in 1929 (Figure 3.12). From 1929 until 1959, the five floors of the building are tenanted by a range of businesses including photographers, jewellers, chocolate makers etc (CT 1936 f 156). To accommodate the requirements of the Ancient Order of Druids, Paramount House was modified with a new lodge room and assembly hall on level four. At the time of the 1928 opening ceremony, the Order had approximately 240,500 members and was playing an active role as a Friendly Society in Sydney.

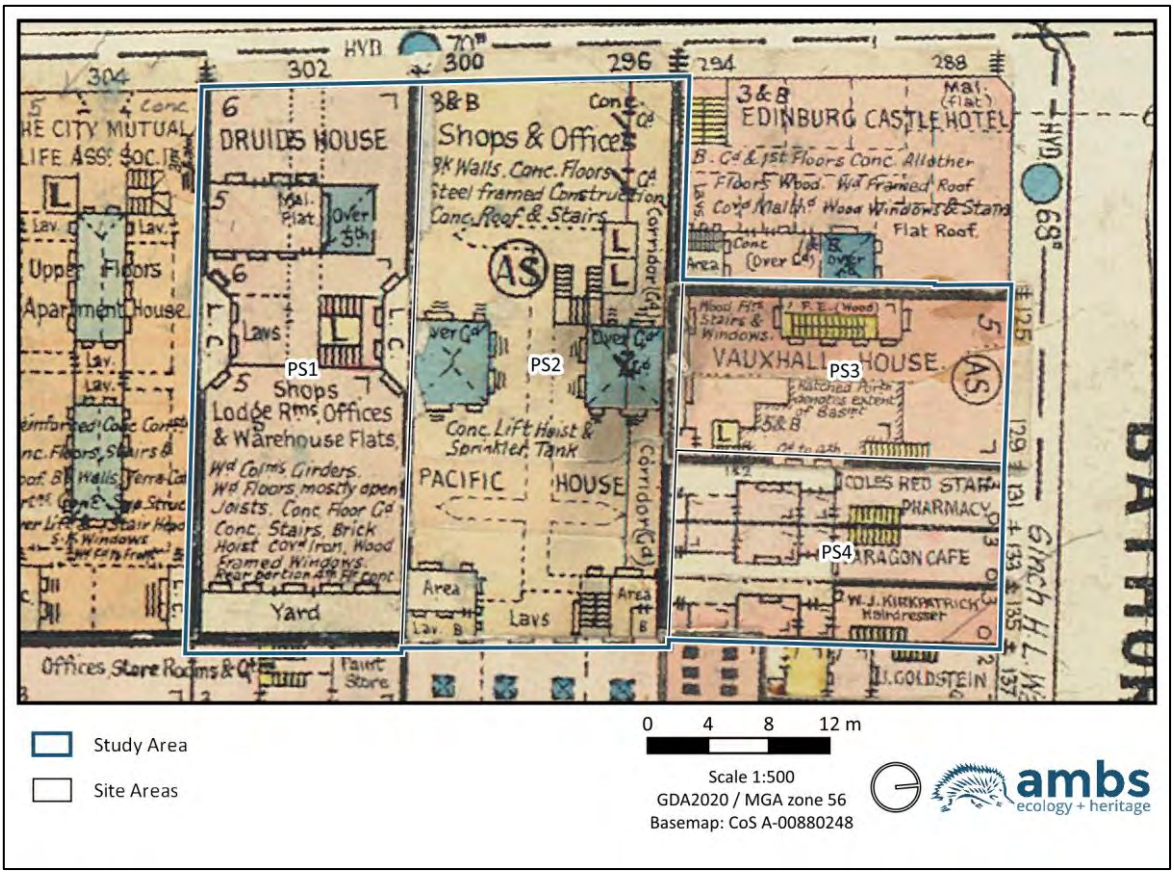

Figure 3.12 Post-1924 Block 168-170 of the Fire Underwriter's Association of NSW Survey Plans showing PS1. Now occupied by Druids House.

3.4 Section 14 Allotment 14 – 131-135 Bathurst Street (PS4)

On 5 April 1828 Reuben Hannam applied for a lease on the grounds that part of the land had been bought from Charles Tompson on 20 March 1820 (eastern part) and the rest was given by Governor Macquarie for land he had given up at the Brickfields (28/3114 in Col Sec, Re Land, Reuben Hannam file, SANSW 2/7874). On 19 October 1831 Reuben Hannam was granted 1 rood 27 perches, bounded on the east by Castlereagh Street 108 links, on the north by Bathurst Street 383 links, on the west by Pitt Street 109 links, and on the south by lots 15 and 13, 380 links: Lot 14 of Section 14 (Grants, Volume 49 No 307, LRS). Hannam was a brick-maker who had been transported to the colony in 1810 for larceny, was granted a conditional pardon in 1815 and appointed overseer of the Government brick works at Brickfield Hill. Reuben Hannam is recorded as establishing the Red Cow public house at the corner of Bathurst and Castlereagh Streets by 1813:

> *That well-known o'd Public-house, the sign of the "Red Cow"…….now being a licensed house for the last 13 years (advertisement in The Sydney Herald* 9 June 1836*).*

In 1826, Hannam gifted a Certain Allotment or Parcel of Ground Situated in Bathurst Street at Sydney … Bounded on the North and South by Forty feet and in the East and West by Seventy one feet (PS4) to his son-in-law Edward Flood, a builder (Not registered. Copy in NRS 17513, Land Titles Office, Real Property Application Packet, RPA 9101, SANSW). In 1828, William Cordeaux, Commissioner of Lands reported that There are two good brick Buildings in the Centre of the Ground newly built (Col Sec, Re Land, Reuben Hannam file, SANSW 2/7874). These buildings appear on a map erroneously attributed as Harper's 1823 map but prepared by GC Stewart and likely dating to c.1826, as would E. Knapp's plan of An Allotment for Reuben Hannon in Bathurst Street. E. Knapp draftsman (Figure 3.13 and Figure 3.14).

On 8 March 1832, Reuben Hannam again gifts land to Edward Flood who has by this time erected *a good and substantial cottage Messuage or Tenement Dwelling house and premises* on the land (Figure 3.15). The title is now clarified and the land is described as measuring 10½ perches bounded on the north by Bathurst Street 61½ links, on the west by Hannam 109 links, on the south by Mrs Rowe 61½ links and on the west by Hannam 109 links (OSD, No 965 Bk D). It is unknown whether the tenement has replaced or is an extension of the building indicated at the rear of the property on E Knapp's plan. Flood was to become a magistrate and founding City alderman and mayor of Sydney in 1849. At the same time, Flood leases to Richard Allen, Sydney, gent, land with a brick house, which is presumably separate to the tenement (OSD, No 964 Bk D). The following year, Richard Allen takes out a mortgage on the property for £150 to Charles William Roemer merchant and banker; the mortgage is discharged in 1840 (OSD, No 858 Bk E, OSD, No 407 Bk U). Following Richard Allen's death in 1844, the land with cottage passes to his brother, George, who may be the founder of the continuing practice Allen, Allen and Hemsley, and was a director of the Gaslight Company, solicitor to the Bank of NSW, and owner of considerable property.

Figure 3.13 Detail from the Plan of the Allotments of Ground in Sydney by GC Stewart with the study area at the corner of Bathurst and Pitt Streets outlined. The map is often erroneously referred to as Harper's 1823 map but is likely dated to c.1826.

In 1853, Allen sells the property to Thomas Clare which he occupies as tenant for £500 cash plus £450 under mortgage at 7% for 3 years (Not registered. Copy in NRS 17513, Land Titles Office, Real Property Application Packet, RPA 9101, SANSW). In the 1848 Rates Assessments, the cottage is described as a brick and shingled six-roomed house and by 1852, a small shop was standing next door. Across a yard to the rear of the buildings was a pair of two-storey brick and shingle houses which abutted the terrace row of five two-room houses built by Reuben Hannan (Section 3.4.1). The 1865 Trigonometric Survey of Sydney plan indicates that at some time between 1831 and 1865 the original cottage has disappeared to be replaced by two buildings addressing Bathurst Street (Figure 3.16). It is possible that this change occurs around 1848 when a brick house and adjacent brick shop appear in the Rates Assessments, perhaps built by Thomas Clare. When Clare died in 1858, his two buildings were being rented by fellow grocer William Farrell as advertised in the *Sydney Herald* on 21 December 1858:

> *To GROCERS and others. A certain Fortune for an Industrious Man. To be DISPOSED OF: that old established Grocery Business, situated in Bathurst-street East, for many years carried on by the late Mr Thomas Clare, and for the last two years by the undersigned, doing a good ready money trade, of which satisfactory proof can be shown. For further information apply to W. T. FARRELL, corner of Market and Castlereagh streets, Sydney.*

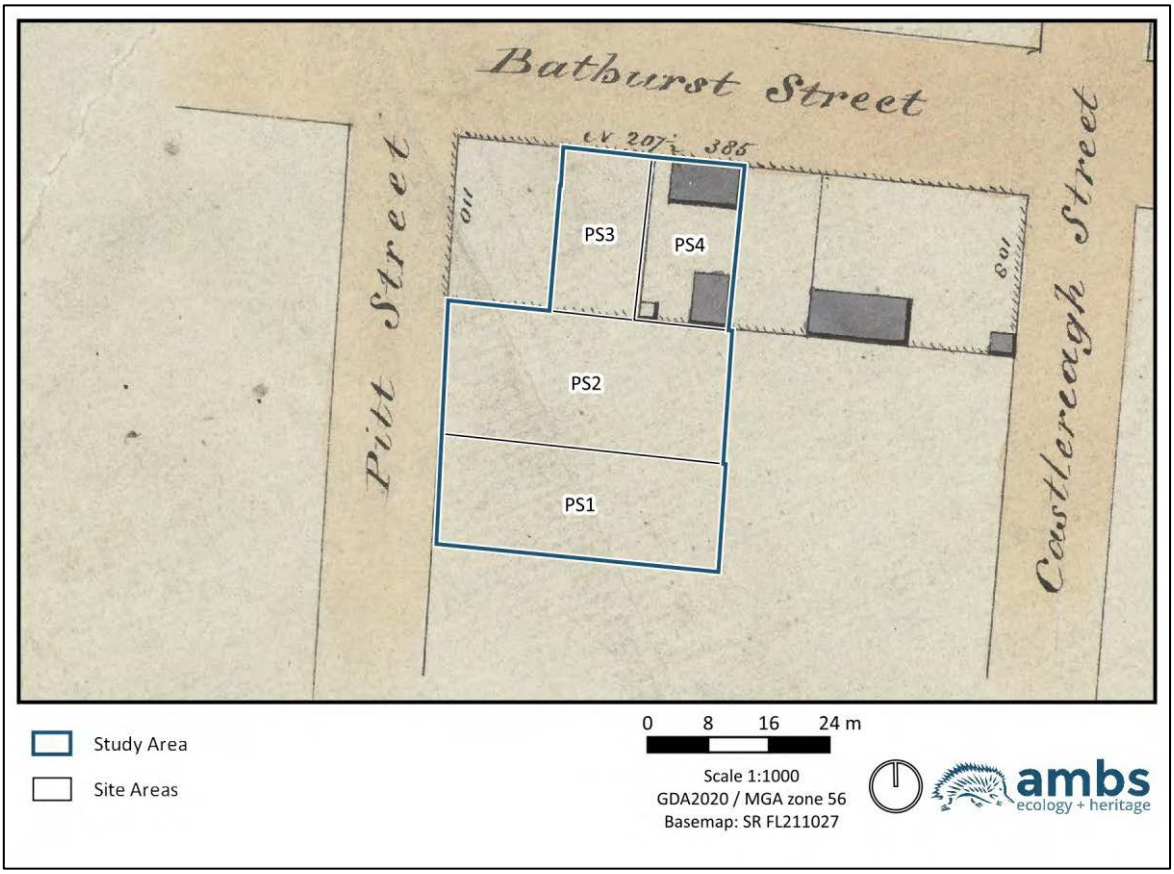

Figure 3.14 Undated, though likely dating to c.1826, plan of Section 14 *Sydney St Lawrence - An Allotment for Reuben Hannon in Bathurst Street. E. Knapp draftsman [Sketch book 1 folio 15]*. PS4 is outlined.

The property remained in Thomas Clare's family until 1875. Following Thomas' death, the property was managed by his sons William and Thomas junior. His widow Maria is recorded as residing at 119 Bathurst Street until her death in 1875 (Probate, Series 2, No 1901). In 1875, William and Thomas Clare Jr are described as cordial manufacturers who convey the title to the Hon John Frazer, Quirang near Sydney, esquire, MLC, for £1,450 (OSD, No 485 Bk 156). Frazer was one of Sydney's substantial property owners, arriving in 1842 from Ireland, and opening a grocery store in 1847. By 1870 John Frazer & Co was Sydney's leading wholesale merchant, with two large produce stores and a bonded store as well as Frazer House, the company's Bridge Street headquarters. Frazer became a member of the NSW Legislative Council and was a notable philanthropist. The pair of sandstone drinking fountains, at the intersection of Prince Albert Road and St Mary's Road and in Hyde Park, opposite Sydney Grammar School, were donated to the city by John Frazer.

The Rate Assessments for 1867 identifies William B Lancashire, Portmanteau Maker, as Mrs Clare's tenant at 121 Bathurst Street, described as a single-storey brick house with slate roof, and at 1 off. The house at 121 has five rooms with an annual value of £60, whereas the house behind has two rooms and is valued at £18. In 1877, Lancashire is John Frazer's tenant at the same address, of a house and shop, which in 1880 is described as 133 Bathurst Street. In 1880, street numbers change such that the properties at 119 and 121 Bathurst Street become 131-133 Bathurst Street (Figure 3.18). Lancashire appears to deal in luggage, advertising on 25 April, 1879:

PORTMANTEAUS AND LADIES' DRESS TRUNKS made to order. Old ones repaired or exchanged, good workmanship guaranteed, by W. B. LANCASHIRE and SON, 121 Bathurst St East, between Pitt and Castlereagh streets.

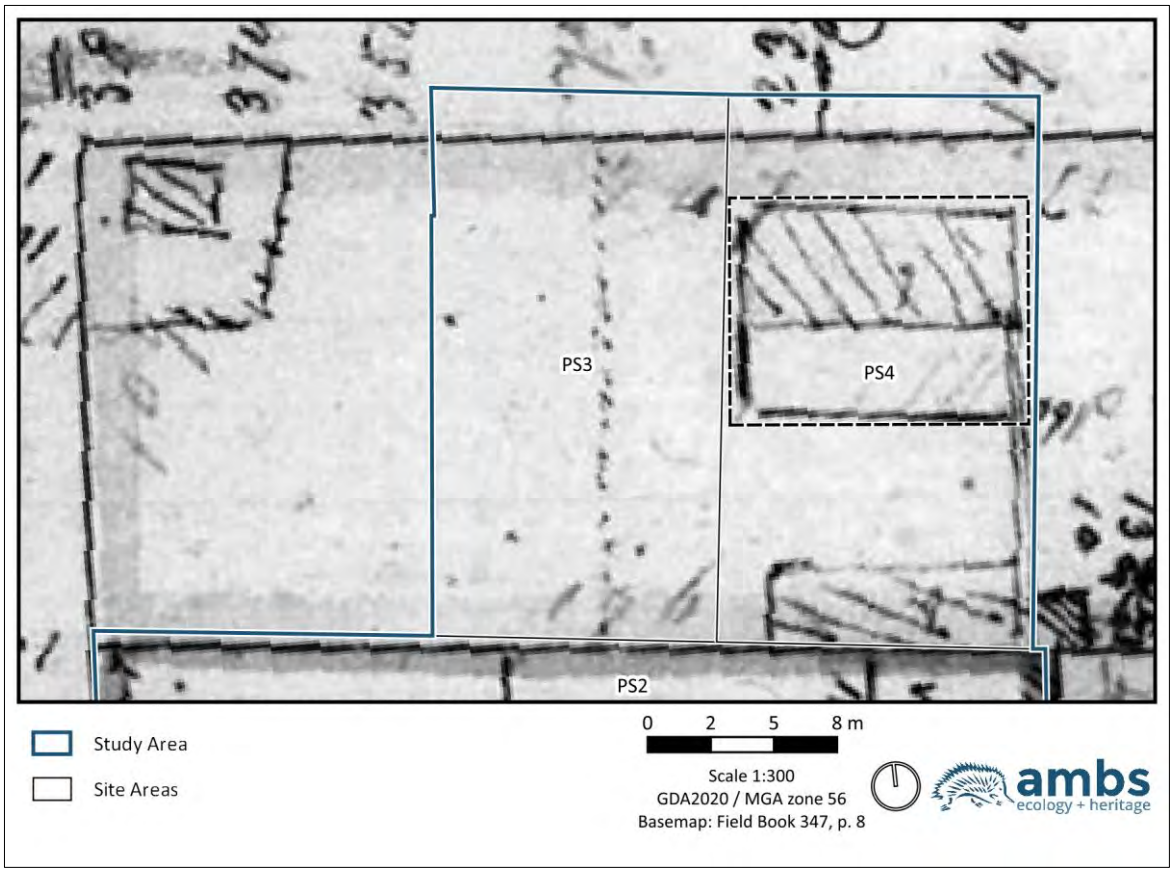

Figure 3.15 Detail from Figure 3.6 of Ambrose Hallen's fieldbook sketch plan of 1831 of lot 14 showing the buildings on PS4 (outlined) and the *Messuage or Tenement* (Louisa Terrace) at the rear of the block.

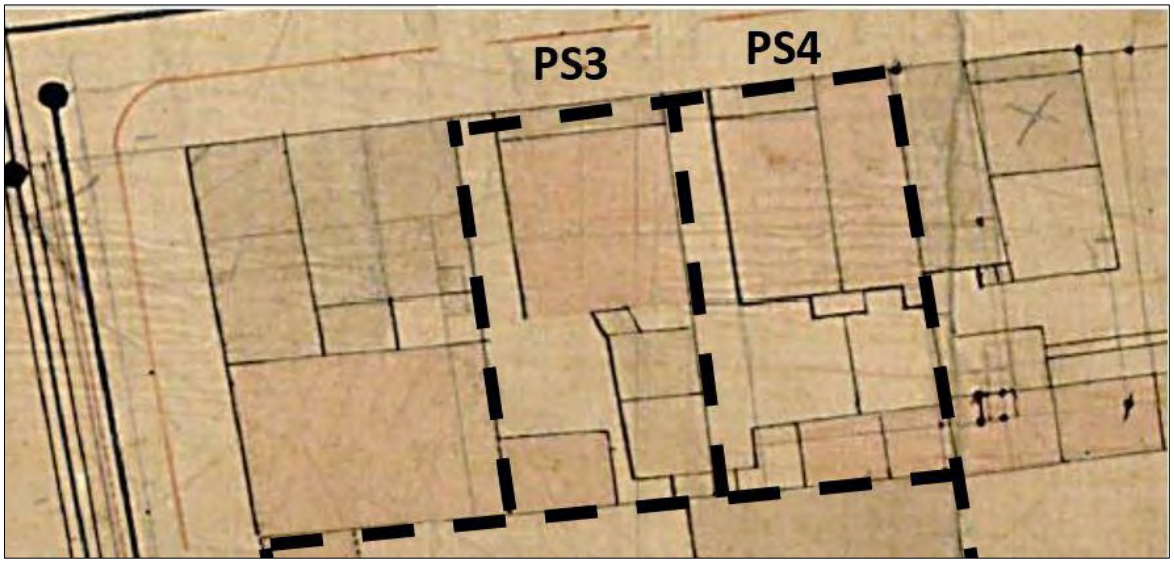

Figure 3.16 Detail from Figure 3.7 showing that the layout of PS4 has changed since 1831. Louisa Terrace along the southern boundary of Section 14 is also outlined.

In 1878, the Sands Directories identify the tenant of the house as Taylor & Co, Bedding makers, which in 1880 is John Taylor, Bedding manufacturer, which is also shown on Percy Dove's 1880 plan. Although the building is identified as a house, Dove's plan seems to indicate that Taylor may be trading from the house (Figure 3.17).

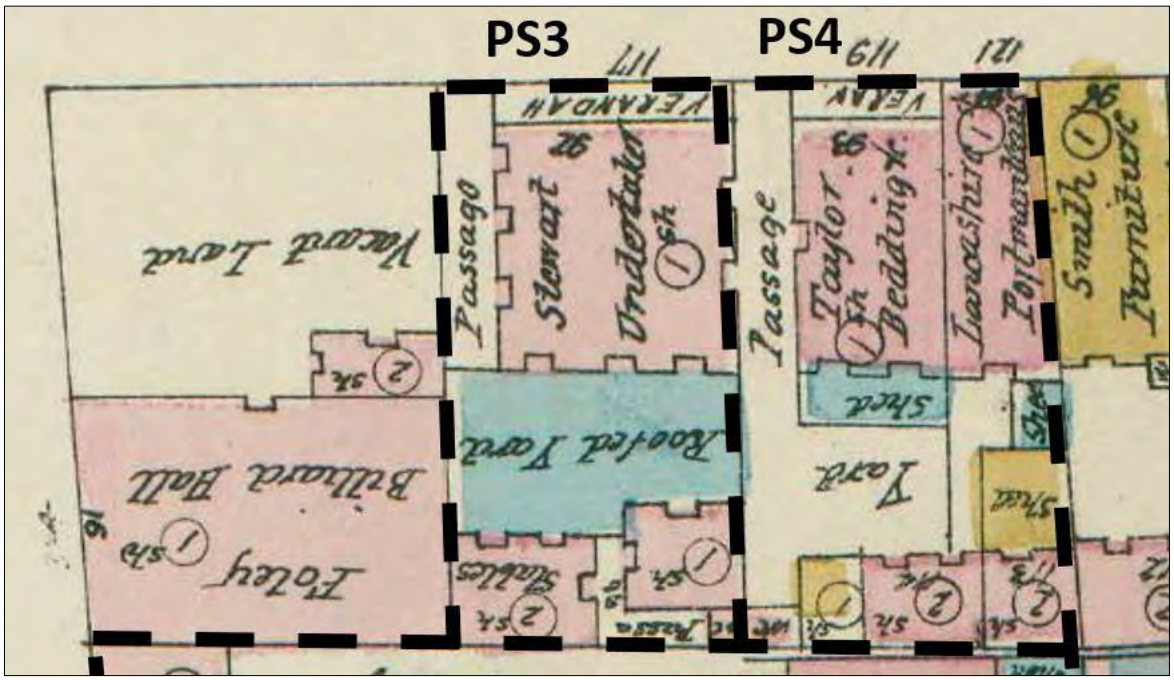

Figure 3.17 Detail from Figure 3.8 of PS4 in 1880 when the layout remains largely unchanged from that of 1865. Note that street numbers have not yet changed to those used today.

In 1882 there is a change in the layout of PS4. The Sands Directory records that between 129 and 133 Bathurst Street *Shops in course of erection,* which comprises a terrace row of three shops, presumably with residences above. The shops are each three-storeyed brick with slated roofs and seven rooms, rated at £156 per annum. The terrace is shown in the Fire Underwriters plans and was presumably erected following the demolition of the house and shop that had stood on the lot since approximately 1848 (Figure 3.18). The shops are occupied by, from west to east, J Robins' Grindery warehouse, George Tall, ironmonger, and James Dawson, Pawnbroker. In 1887, the businesses are modified with Robins' grindery also housing a boot-upper manufacturer, Tall's ironmonger and locksmith (later locksmith only), while the pawnbroker remains unchanged. Frazer leased the property to George Tall of 131 Bathurst Street for five years from 1 March 1891 (Recited in CT 1115 f 171). The Rates Assessments for 1891 identify the shop at 131 as vacant, the shop at 133 as tenanted by G Tall and the shop at 135 as tenanted by GW Hall. The Sands Directory for the same year identifies George Tall as the locksmith at 133, and Thomas W Hall, pawnbroker at 135; there seems to be some discrepancies in the spelling of the names of occupants. The triple-fronted façade in the prevailing Victorian Italianate architectural style of the later nineteenth century is extant to the present day (Figure 3.19).

In 1893, an application for 10½ perches, part of Lot 14, Section 14, occupied by George Hall (Tall?) and T W Hall, is lodged by Elizabeth Frazer, widow, at the time in Europe, James Watson and James Ewan, merchants, William Russell, solicitor, and John Frazer Hoare, sharebroker, all of Sydney (RPA 9101). The certificate of Title was issued the following year. In 1909, following the deaths of Ewan,

Russell and Watson, the property is transferred to Elizabeth Frazer, John Frazer Hoare, Ewan Richards Frazer and Sir John Reading Fairfax, as tenants in common (CT 1115 f 171).

In 1896 the shop at number 133 becomes a restaurant run by Mrs M Brown, which is identified in the Fire Underwriters plans as the Paragon café, while Thomas W Hall continues to run the pawn shop at 135; however, the shop at 131 has been Mrs Elizabeth Tall's second-hand clothing shop since 1892. These businesses continue until in 1904 the shop at 135 becomes a Fruiterers. In 1907, Myer Mitchell has become the tenant at 131, continuing the second-hand clothing, furniture etc. Myer Mitchell had established a second-hand dealership at 145-147 Bathurst Street since 1897, which advertised the sale of second-hand false teeth in 1914, a number of examples of which were recovered during excavations at the 209 Castlereagh Street site (Australian Museum Consulting 2015b:16, 109-110, Figure 4.52). In 1910, James Clark is operating a tobacconist at 135 (Figure 3.18).

In 1914 the Certificate of Title is transferred to Maurice Moran, Sydney gentleman, after which it is leased to various solicitors until in 1929 the property is leased by Jack Rapken, pawnbroker of 133 Bathurst Street. Rapken appears to retain the lease until 1947 when the lease is transferred to Solomon Cohen and Charles Nathan Schachtel as tenants in common (CT 3093 f 249). The property changes hands over the next decade until 27 January 1961 the lease is taken by William Auliffe Winston, chemist, of 131 Bathurst Street (CT 7374 f 82). However, the Sands Directory and Rates Assessments record Robert C Cole, chemist, at shop 131, the Red Star Pharmacy, from 1923. The restaurant at 133, continues to operate until 1926, after which Jack Rapken operates a dealership.

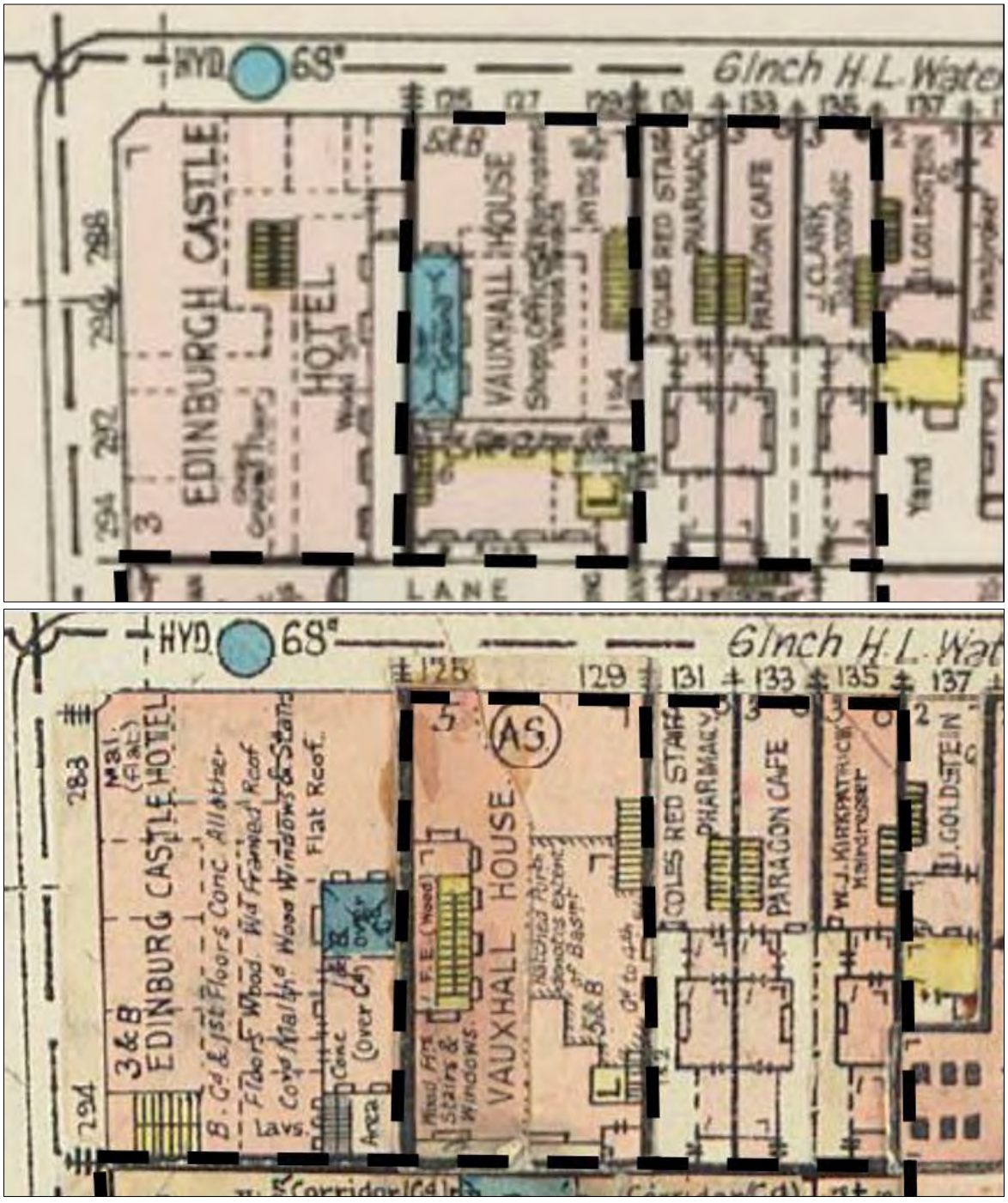

Figure 3.18 Details from, Fire and Accident Underwriters Association of New South Wales plan above, and detail from Figure 3.12 of the later Fire Underwriter's Association of NSW Survey Plans, below showing the footprint of the southern Pitt Street Station site with PS4 framed. The tenants of 131 and 133 continue into the later period, whereas 135 has changed hands.

Figure 3.19 The Victorian Italianate terrace of three shops built in 1882 at 131-135 prior to demolition in 2019.

3.4.1 Messuage or tenement dwelling – Louisa Terrace

By the 1830s Sydney was becoming a cosmopolitan and prosperous town where speculative building became a profitable occupation:

> *The sort of building which promises the surest and most profitable return is the construction of small houses and shops for retail dealers... From the constant influx of Emigrants and the number of mechanics and labourers with their families now employed in Sydney there is a constant demand for small houses or suitable apartments for the accommodation of small families of the industrious classes. To meet this demand houses may be built in the outskirts of the town for £35 each on ground of nearly the same value making the amount of capital expended about £75. The rent of a house so constructed is from 8s. to 10s per week* (The New South Wales Magazine 1834:203-4).

Reuben Hannam's 1832 gift to Edward Flood is described as including *cottage Messuage or Tenement Dwelling house* (Section 3.4). Although these are not described clearly, it is likely that this represents the cottage mentioned as sold to Thomas Clare in 1844, and a tenement dwelling house. Hannam had erected a terrace row set back along the southern boundary of lot 14, parallel with Bathurst Street, from which it was accessed via a vacant block of land/right of way and a passage (Figure 3.20). Ambrose Hallen's 1831 plan shows the tenement also as extending to PS4, but as separate from Reuben Hannam's tenement to its east (Figure 3.21).

Louisa Terrace was built at a time when terrace housing was just becoming a more common form of housing in Sydney and is likely to be among one of the earliest examples of the type. From 1836, merchants were investing in their construction as an ideal housing form to cater to grand accommodation, such as the Lyons Terrace overlooking Hyde Park, to the more economical and traditional two-up, two-down terrace housing (Freeland 1974:89). Louisa Terrace was very basic example of the type, being a simple and cheap one-up, one-down accommodation row, presumably designed as low-cost housing on the outskirts of the urban centre. Despite the simplicity of design and scale, the Louisa Terrace houses may have been considered a superior class of accommodation to other contemporary housing such as the simple free-standing timber cottages on John Harris' swampy Ultimo Estate (Australian Museum Consulting 2015a:44-45). The Louisa Terrace row is described in the 1845 Rates Assessment as five houses owned by Reuben Hannam in Hannam's yard. It would appear that the terrace row was extended, perhaps by 1858 when the Sands and Rates Assessment Books indicate occupants to more than four residences. Certainly the 1867 Trigonometric Survey of Sydney and Dove's 1880 plan indicates that the terrace row comprised at least seven separate residences (Figure 3.22).

By 1858, the value of the terrace row has increased to £26 each for four houses, and £52 for the fifth, which having four rooms must be the equivalent of two houses.

The original haphazard construction of housing was improved by Governor Macquarie when, on 15 December 1810, a General Order was issued:

> *The Dwelling Houses are to be either made of Brick or Weatherboard, to have brick chimnies and Shingled roofs and Offices will be left with each District Constable to which each Settler must conform in the erecting of his Building (*Freeland 1974:31*).*

Listings in the Rates Assessments and Sand's Directories from the 1840s to the 1880s reveal that Louisa Terrace was occupied by a variety of tradespeople and their families, with a high tenant turnover. Sources reveal a variety of tenants: mariners, masons, cabinet makers, bricklayers, a shingler, a tobacco twister, blacksmith, bootmaker, tobacconist, labourer, laundress, a dressmaker, wet nurse and a show stand manufacturer, although the address of each tenant is unknown. The houses are numbered 108 to 114 from east to west on Percy Dove's plan. Mention is made of Louisa Terrace, off Bathurst Street, during the 1860s and 1870s in brief advertisements attesting to the name, which Thorp identifies as Louisa Place (CRM 2001:83). During the excavation of the 209 Castlereagh Street site, the right-of-way indicated on Percy Dove's 1880 plan was given the name Louisa Place for convenience (Australian Museum Consulting 2015b:80).

In 1875, the Sydney City and Suburban Sewerage and Health Board was formed to investigate issues relating to increases in rates of illness and death due to a lack of cleanliness and pollution from drains and open sewers, overflowing cesspits and water closets, and all aspects of sewage collection and disposal. A select committee of the Legislative Assembly was appointed to inspect properties in the areas under investigation, which were often described as being damp, dilapidated, unhealthy and unfit for human habitation (Legislative Assembly of NSW 1877:77). In 1881, the *Mayor of Sydney, Mr J Harris, in company with the City Building Surveyor, Mr. Sapeford, the Health Officer, Dr Danger, Inspector Seymour, and other gentlemen inspected a number of tenements which had been reported as being unfit for human habitation. The buildings were for the most part old structures, and only kept erect by means of ingenious patches and temporary*

*supports, and were manifestly unsafe and unfit for habitation….six houses known as Louisa terrace…*were included in the list of condemned houses (*Further Raid on the Rookeries*, *Evening News*, 4 February 1881, page 3).

The terrace row was demolished in 1881 prior to the construction the terrace row of three shops in 1882 addressing Bathurst Street that replaced the earlier house and shop.

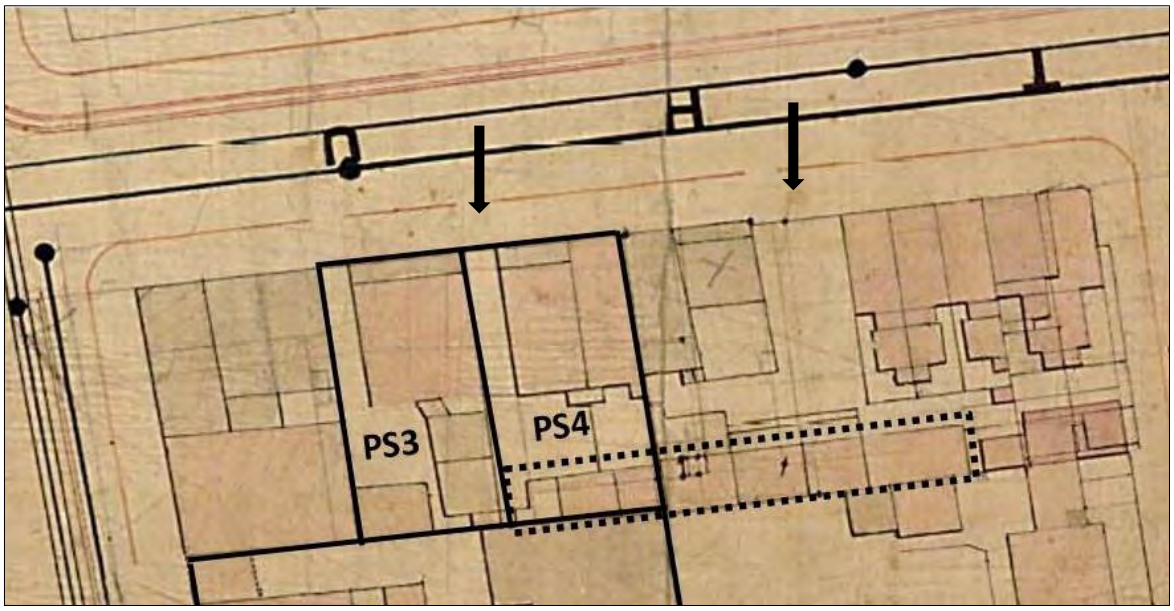

Figure 3.20 Detail from Figure 3.7, the 1865 Trigonometric Survey of Sydney, showing Louisa Terrace along the southern boundary of Section 14 with the two access points from Bathurst Street (arrowed).

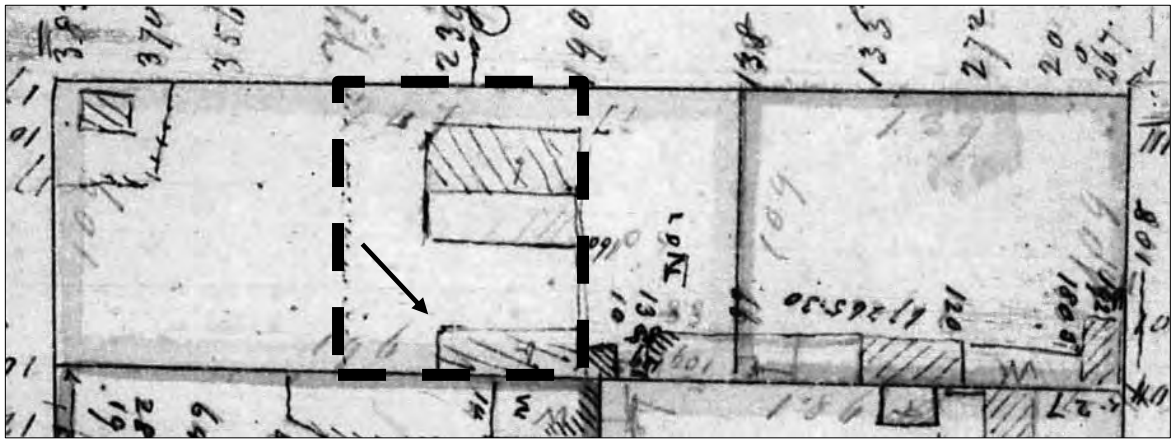

Figure 3.21 Detail from Figure 3.6 of Ambrose Hallen's fieldbook of 1831 showing the buildings on PS4 and the *Messuage or Tenement* at the rear of the block (arrowed). The tenement within PS4 appears to be a separate construction to the tenement to the east.

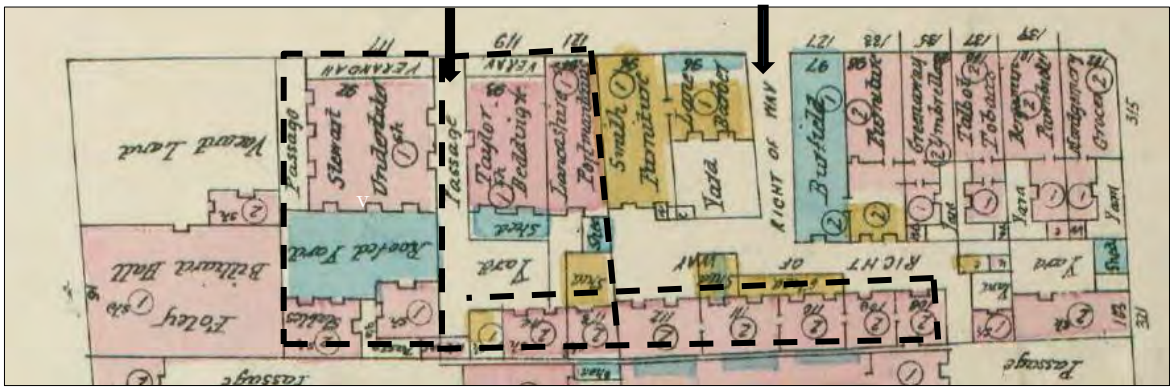

Figure 3.22 Detail from Figure 3.8, Percy Dove's 1880 plan, which identifies Louisa Terrace (indicated by dotted rectangle) as sequentially numbered 108-114 from east to west. Rights of Way accessing the terrace are arrowed.

3.5 Section 14 Allotment 14 – 125-129 Bathurst Street (PS3)

On 15 and 16 November 1831, Reuben Hannam leased and released land bounded on east by Edward Flood 72 feet (PS4), on north by Bathurst Street 37 feet 6 inches on west by land sold by Hannam to John Jobbins 72 feet and on south by Rowe (now owned or occupied by Edward Deas Thompson) for £120 to his son-in-law Edward Flood, licensed victualler (OSD, No 722 Bk D) (Figure 3.23). It is not until 1834 a brick building is noted as standing on the land when Edward Flood leased and released it to Reverend Ralph Mansfield a former Methodist minister who was by then editor of the Sydney Gazette newspaper, for £650 (OSD, No 159 Bk G). A few days later on 8 July 1834, Mansfield had a mortgage for £600 at 12½% to Peter Gardner, gent, which was transferred and released in 1840 to Robert Scott (OSD, No 234 Bk R and OSD, No 235 Bk R). The house is described in the 1845 Rates Assessments as a two-storey nine-roomed brick house with shingled roof and one-room single-storey brick and shingled *kitching* with an annual value of £72 and tenanted by James Dalgamo. Ralph Mansfield was editor of the *Sydney Morning Herald* and a prominent figure in the Sydney establishment, sharing company boards with George Allen, who owned the neighbouring block (PS4) 1844-1853.

On 11 May 1849, Reverend Ralph Mansfield and his wife Lucy of Kent Street convey the equity to Thomas Smidmore for £100 with a mortgage of £700 still due (OSD, No 610 Bk 16). In 1848, the house on Bathurst Street is described as being a single-storey eight-roomed brick house with shingled roof valued at £60 with George Kent as Smidmore's tenant. Why there is a discrepancy between the description of the house in 1845 and 1848 is not explained in any of the documents. However, by 1856 the house has two floors indicating that the single-storey description may be erroneous. Thomas Smidmore was the son of a convict but became a successful businessman, with one of his ventures being a Staffordshire pottery warehouse on George Street during the 1820s and 1830s. He had extensive landholdings in Newtown, Marrickville and Sydney, including the Thistle and Crown Inn on George Street. He was a founding alderman on the Sydney City Council, from 1842 to 1850, representing the Brisbane Ward and was proprietor of the Australian Chronicle in 1844.

In 1863, the house is tenanted by J McDermott a coachbuilder, at which time a coach house and stabling have been added to the property, now valued at £90. The 16-roomed two-storey Edinburgh Castle Public House also appears for the first time in 1863, at the corner of Bathurst and Pitt Streets, tenanted by Sarah Joseph. McDermott continues as the tenant until in 1867, Robert

Stewart, Undertaker takes over as tenant, advertising his services *STEWART. UNDERTAKER: 117 Bathurst-street; 401 Pitt-street. Funerals arranged on moderate terms* (*Empire*, 3 October 1866:7). Also advertised were *Hearse, Mourning Coaches, Ostrich Plumes, and other requisites recently imported, similar to those now in use in England. DRY CEDAR ON SALE* (*Australian Town and Country Journal*, 1 October 1870:2). Stewart's business also functioned as a joinery and sawmill, producing hearses and cedar coffins as well as furniture.

Robert Stewart was followed into business by his son Walter:

> *Walter Stewart, Undertaker, 129 BATHURST-STREET SYDNEY. Hearses and Coaches, new and second-hand, for Sale, or built to order for the trade, cheap. Orders for Funerals, post or telegraph, from the suburbs or country, to meet trains or steamers, promptly and carefully attended to. Steam Sawmills and Turnery Works, Bathurst-street (Australian Town and Country Journal,* 13 February 1886:6).

Embalming was added to Stewart's offerings shortly after. The layout of the site remains largely unchanged on 1865 Trigonometric Survey of Sydney and Percy Dove's 1880 Plan of Sydney. Dove's plan identifies the buildings appearing on the 1865 plan with the large brick house, the stables in the south-west corner, and an outbuilding (coachhouse?) in the south-east, though in 1880 a covered yard has replaced the building between the house and outbuilding. The WC/cesspit is located in the south-east corner behind the outbuilding (Figure 3.24 and Figure 3.25).

The Bathurst Street property is retained by the Smidmore family until 1897, when the trustees of Smidmore's Will convey the property to Herbert Shackelford Gibson of Randwick for £1,900 (OSD, No 114 Bk 597). The Certificate of Title is issued to Gibson in September (CT 1230 f 60). Gibson ran a horse and carriage hire service in Castlereagh Street during the 1860s, becoming a prominent auctioneer of livestock and proprietor of Gibson's Horse Bazaar, 244 Pitt Street, until 1880 when it was bought by William Inglis.

Stewart's tenancy of the Bathurst Street property ceases in 1906.

In May 1905, the Certificate of Title is transferred to Donald Macdonnell, Nicholas Buzacott, Thomas White, Arthur Rae and Albert Hinchcliffe (CT 1230 f 60). The group of trustees were prominent members of the Labor Party and active in the labour movement. Arthur Rae was a printer and prominent unionist who encouraged the 1891 establishment of a small union newspaper *Hummer* in Wagga, renamed in 1893 *Australian Worker*, the official journal of the Australian Workers' Union, changing in 1913 to *Worker*. Albert Hinchcliffe was also a printer and prominent unionist who was the treasurer of the newly established monthly newspaper, *Worker* in 1889, which had become the voice of Labor and a successful newspaper by the end of the century. An annual levy of two shillings and sixpence on all members was raised to five shillings in 1902, which by 1904 comprised 34,000 members contributing to the purchase of the Bathurst Street property. On page 5 of the 1 July, 1905 issue of the Worker was an image of the new triple-fronted three-storey high Victorian building, captioned, *We have pleasure ill presenting our readers with a photo of our new offices, now approaching completion. A full description of the offices, together with a history of The Worker will be given in a special commemorative number to be issued early in August* (Figure 3.26). In 1908, the Worker described the building's interior with the business office on the ground floor, beneath the editorial floor: *Here the inky ecstasies of the spring poet and the long-winded effusions of 'Vox Populi 'are cruelly but very necessarily revised or*

abbreviated (*Worker*, 11 June 1908:7). The top floors were occupied by typesetting, plate-making and printing departments, offered to private clients as well as the AWU and its paper. Officially renamed Progressive House the building was in the news during 1912 when the literary staff went on strike for improved wages; Henry Lawson was among the striking freelance writers (*Evening News*, 14 February 1912:8). In 1914, the AWU purchased new premises in Kent Street and the presses and other machinery were moved out; a *Worker* writer reminisced: *Five stories high, and large as it seemed when built, it became too small, and a new move has been made* (*Australian Worker*, 31 December 1914:15).

In the same year Albert Arthur Ellisdon, an auctioneer and merchant, became the new owner of the building (LTO Transfer A145784, 1 November 1914). Ellisdon became well-known during the 1930s as the founder of Ellisdon's Jokes, a mail order novelty catalogue. Ellisdon rented out the floors at 129 Bathurst Street; his first tenant was *The largest and best appointed bath house in Australia…Massage a Speciality* (*Evening News*, 23 October 1915:2). During the 1920s, the building was renamed Vauxhall House with a succession of investor owners throughout the 1920s and 1930s (Figure 3.27 and Figure 3.28). Tenant numbers also increased during this period, with the 1928 Sands Directory, for example, listing 32 tenants across the building's five floors and basement, offering services and products from prickly pear poisons to piano tuition. Late one afternoon in 1930 the upper floors of Vauxhall House were engulfed in flames, resulting in the death of two estate agent's staff, Rosabella Miller and her mother Mary Elizabeth Miller (*Labor Daily*, 1 July 1930:1).

When offered for sale in 1933 the refurbished building's fire safety measures were highlighted: *VAUXHALL HOUSE NOs 125 129 BATHURST STREET CITY between Pitt and Castlereagh Streets. A brick building comprising Shops and Offices and containing Basement GROUND and FOUR UPPER FLOORS with flat roof and sprinkler Installation, fire escape* (*Sydney Morning Herald*, 22 April 1933:20). Vauxhall House continued as a rental address until 1950, when it was purchased by the NSW Permanent Co-operative Building Society and used as the Society Headquarters (LTO Transfer FF668075, 9 October 1950). Renamed Cooperation House the building was refurbished with the original façade removed and replaced by steel windows and an unadorned elevation to the street. The purchase of the building was proclaimed as *the crowning achievement of 12 years' expansion within the building society movement of this State,' said Mr. W. Pooley, the Secretary of the Society* (*Construction*, 21 December 1949:5). During the Credit Union's ownership, the building was refurbished twice, in 1974 and again in 1985, when the existing glass façade was installed (*Sydney Morning Herald*, 6 December 1988:35). During 1989, the Credit Union moved to new premises and 125-129 was auctioned: *PRIME COMMERCIAL BUILDING. Five level commercially zoned building comprising lour levels of modern air-conditioned office accommodation, ground floor retail - currently used as banking chambers, basement storage area* (*Sydney Morning Herald*, 3 December 1988:120).

Figure 3.23 Map attached to Reuben Hannam's lease and release to Edward Flood of PS3 (OSD, No 722 Bk D).

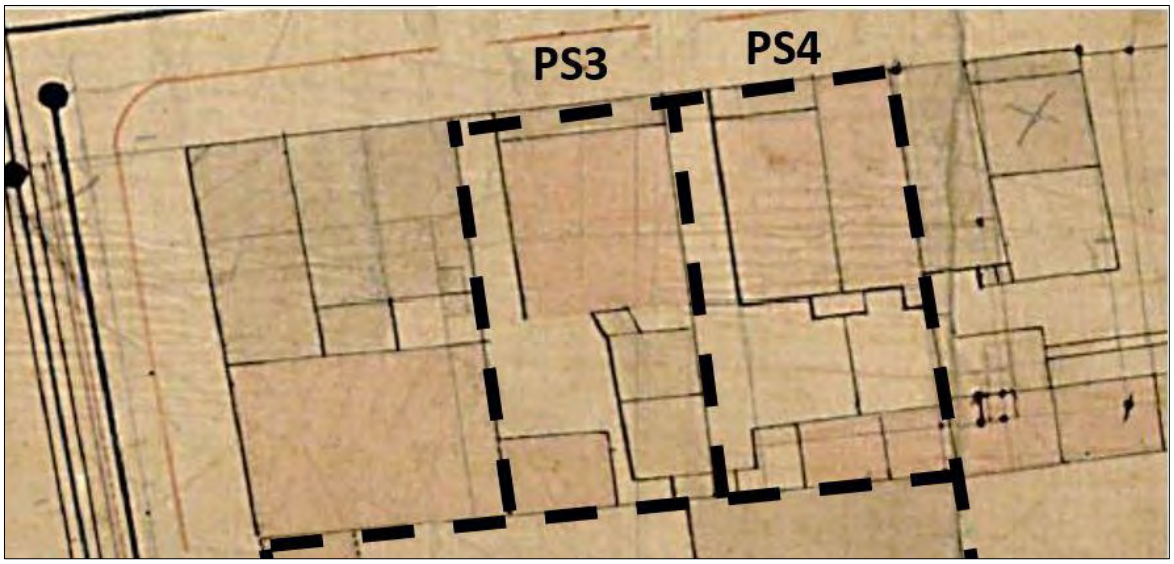

Figure 3.24 Detail from Figure 2.7, the 1865 Trigonometric Survey of Sydney. The building in the south-west in PS3 is identified in Dove's 1880 plan as Stable, and the small building in the south-east corner is a WC/cesspit (see Figure 3.25).

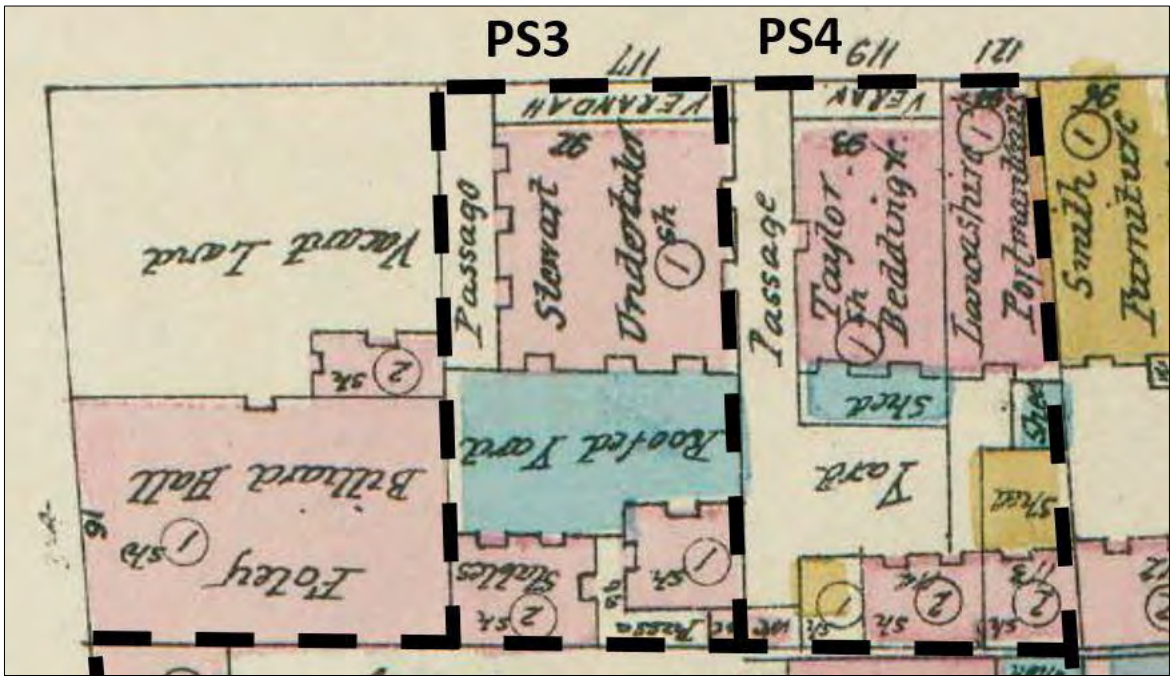

Figure 3.25 Detail from Figure 2.8 of PS3 in 1880 showing details regarding the brick house, two-storey brick stables, a single-storey stone building to the east, and WC/cesspit.

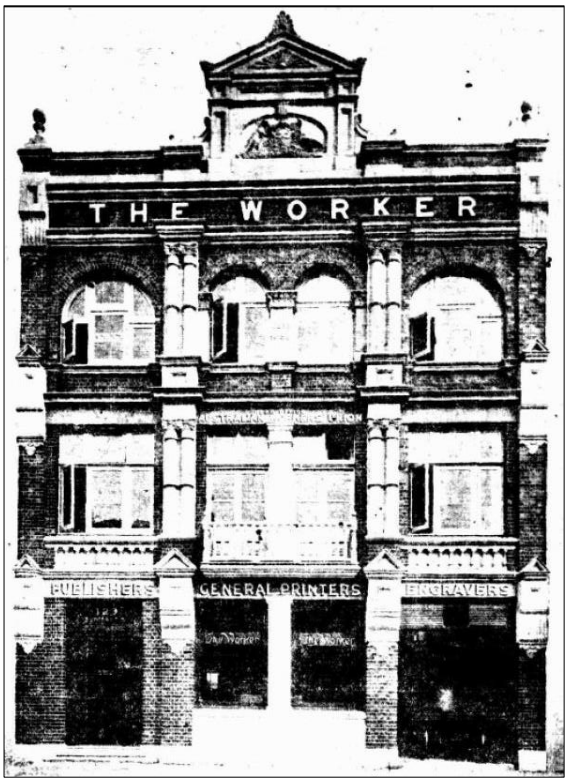

Figure 3.26 The Bathurst Street offices of The Worker as it appeared on Page 5, 1 July 1905 of the newspaper.

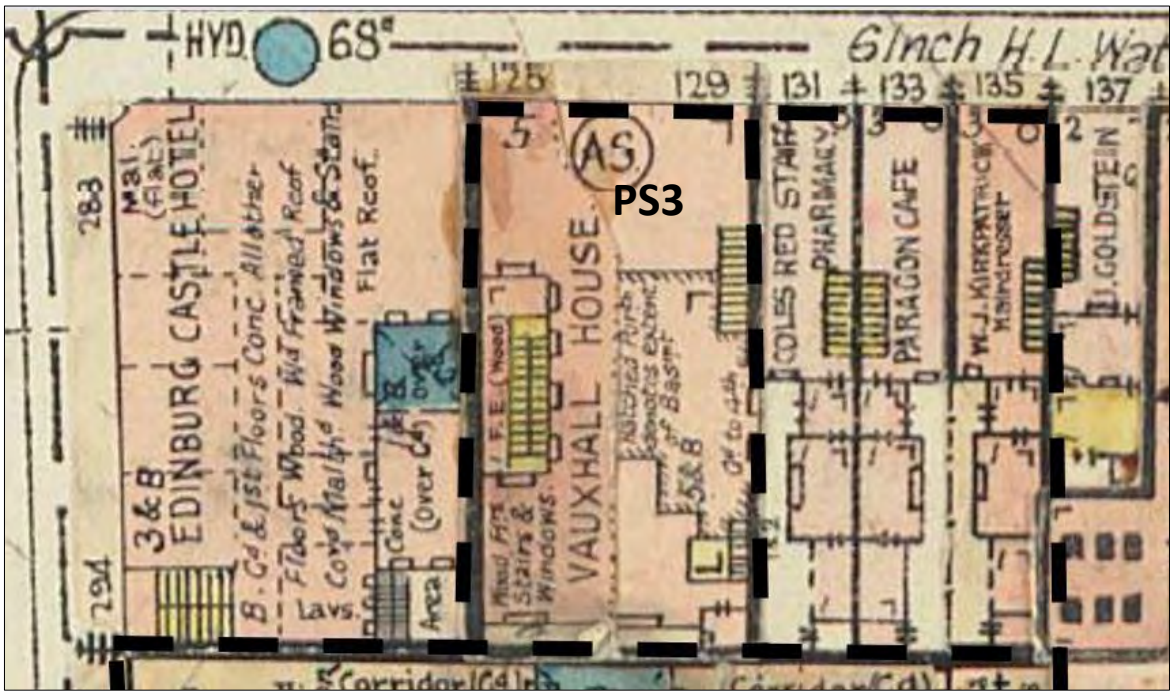

Figure 3.27 Detail from Figure 3.12, Fire Underwriter's Association of NSW Survey Plans, showing Vauxhall House extending across the footprint of PS3. The basement and lift well are shown.

Figure 3.28 Edinburgh Castle and Vauxhall House on Bathurst Street in 1931. (Australian National University, Noel Butlin Archive).

4 Archaeological investigations

The AMS prepared by AMBS outlined the methodology for the archaeological works at the Pitt Street South station site. The only changes to the methodology were the personnel involved in the excavation program. Due to the time between the AMS and the excavation works commencing not all nominated personnel were available. The following details the personnel that undertook the archaeological excavations and the archaeological methodology implemented during the excavations.

4.1 Methodology

The archaeological investigations program comprised:

- Testing and monitoring slab and overburden removal which determined the extent, integrity and potential significance of the underlying archaeology.
- Where archaeological remains were present with good integrity salvage excavation proceeded.

The significance and research potential of the archaeological resource associated with the 1860s-1870s houses, outbuildings and yards, and their location within the footprint of the excavation area meant that these areas were excavated using both mechanical and manual techniques.

4.1.1 Archaeological testing and monitoring

Mechanical removal of the extant concrete slabs and wall foundations across PS1, PS3 and PS4 were monitored by the Primary ED, Jennie Lindbergh and Site Director Lian Ramage, assisted by Victoria Cottle, AMBS Archaeologist. Where there were no underlying archaeological relics, features or deposits in the areas under investigation, the Primary ED attended the site to verify and issued Clearance Certificates to inform the project team and Proponent in writing. Clearance certificates were issued for PS1 and PS2 as no intact archaeological deposits or features were revealed. Clearance Certificates were issued for PS3 and the area along Bathurst Street for the piling trench in PS4 following the archaeological monitoring and recording of archaeological features.

4.1.2 Open area stratigraphic excavation

The archaeological monitoring revealed that the only surviving substantial archaeological remains were those in PS4. The aim of the archaeological excavations was to excavate all pre-1880s archaeological features, deposits and relics. The aim was to explore the evidence of earlier occupations to identify early land-use practices, modifications and changes to the layout and form of buildings, and the living and working conditions of those occupying each site.

Salvage excavation proceeded once the site had been made safe as directed by the Secondary ED, Kevin Hickson. The team comprised up to 10 archaeologists on site at any one time under the supervision of the Primary ED, Jennie Lindbergh, the Secondary ED Kevin Hickson and the site supervisor Lian Ramage.

Excavations were undertaken in accordance with the following methodology which ensured all significant archaeological relics, features and deposits were appropriately managed and recorded:

- Establish a site datum and lay out a grid, relevant to the size of the site, 10m, 20m or 50m, across the site in order to record the levels of extant deposits, features and relics.
- Significant features will be recorded in detail and excavated manually:
    - All underfloor areas will be excavated within a 500mm grid, using 50mm spits, and wet sieved.
    - Cesspits and rubbish pits will be excavated along tip lines (if identifiable).
- All significant archaeological deposits, features and relics that are exposed during the excavations will be recorded in accordance with heritage best practice standards. Recording included:
    - Cleaning features to facilitate photographic recording.
    - Scale plans.
    - Elevations of features, if relevant.
    - Digital photographs (in JPG and RAW format).
    - Photogrammetry.
    - Site survey.
    - Detailed description of the feature, deposit or relic to ensure that a clear and comprehensive record of the archaeological resource of the site is preserved for the future.
- Sequential numbering of features and deposits to facilitate preparation of a Harris Matrix and artefact labelling.
- Preparation and development of a Harris matrix, to show stratigraphic relationships between all recorded archaeological features and deposits.
- All information regarding the location, dimensions and characteristics of each recorded archaeological features and deposits will be recorded on pro-forma context sheets.
- Collection of all significant artefacts for analysis, except from non-significant unstratified fill. Samples of bricks and mortar will be collected from each structure, as relevant.

Soil samples were taken from topsoils, cesspits and other relevant deposits for analysis by a palynologist. The results of the analysis should provide an insight into the indigenous and introduced flora of the locality and diet of the local community.

A Clearance Certificate was issued by the Primary Excavation Director for PS1 and for PS4 after investigations were completed with each site cleared of all archaeological features, deposits and relics.

4.1.3 Sieving strategy

Evidence of past activities is provided by artefacts recovered during archaeological excavation, in particular from occupation deposits. Occupation deposits with potential to allow for conclusions to be drawn as to standards of living and access to goods occur beneath floors, within cesspits, rubbish pits, wells or cisterns, and yard deposits. Occupation deposits were wet or dry sieved, in accordance with the density of the soil matrix and the likely improved retrieval of significant artefacts.

Where relevant, sample sieving of deposits was done to determine whether a deposit warranted sieving and if so, this should be wet or dry sieved. Two recycling wet sieving systems were constructed by the TSE team to facilitate that wet sieving was environmentally compliant.

Each room of each house under investigation and that had underfloor deposit was gridded into 1m squares. The deposit within each square was excavated and sieved to ensure that all evidence of material culture was retrieved for analysis, no matter how small. The purpose of this process was to spatially map areas of activity as demonstrated in the material assemblage. Similarly, dense deposits from other structures or features such as cesspits and wells or cisterns were also sieved, where deemed to be the best strategy for retrieving all possible artefacts.

Artefacts from the excavation were processed at Sydney Metro's store under the direction of Primary ED Jennie Lindbergh. James Cole, Madeleine Rodwell, Sarah Rollason and Mathew Byron were responsible for initial processing.

All artefacts were cleaned bagged, tagged and boxed by context and fabric type and stored at the Sydney Metro store until late 2020 when they were moved to AMBS' offices in Camperdown. for detailed analysis.

4.2 Results of testing and monitoring

4.2.1 PS1

There is documentary evidence that PS1 had been occupied from at least 1823, with a house and outbuilding on the site. From 1852, the lot was occupied by a mason, with the establishment of a monumental mason's workshop and shed, and a tenement from this time until demolished in 1903.

Archaeological monitoring of the PS1 section of the Pitt Street South site was undertaken intermittently between 23 November 2018 and 13 March 2019 by Jennie Lindbergh, Primary ED for ground penetrating works. Following demolition of the building, Druids House, originally Welsbach House constructed in 1903 it was revealed that ground level had been cut down to the natural C Horizon clay, a depth of approximately 2m below the level of the Bathurst Street surface. Inspections following removal of the concrete slab across the site confirmed that it was unlikely that archaeological remains are present in the clays (Figure 4.1 and Figure 4.2). Based on this it was determined that further archaeological investigations within PS1 were not necessary.

The Clearance Certificate for PS1 was issued by the Primary ED on 18 March 2019.

Figure 4.1 Aerial of the Pitt Street South site with PS1 outlined in black (JHCPBG JV).

Figure 4.2 View east of the rear section of PS1 illustrating the B Horizon clay exposed immediately beneath the concrete slab.

4.2.2 PS2

PS2 was known to have a deep basement across the entire lot and had been identified as having no archaeological potential. In accordance with the AMS, no archaeological work was undertaken in PS2.

4.2.3 PS3

Prior to archaeological monitoring in PS3, during demolition of the buildings within PS3 and the rear of PS4, Delta inadvertently broke through a water main causing extensive flooding. The trench excavated to drain the water caused extensive damage to PS3 and damaged an area of PS4 (Figure 4.3).

PS3 was known to have been occupied from 1834 and had been assessed as likely to retain evidence of a cess pit and stable associated with a carriage maker. The lot was found to have been disturbed by the construction of the Edinburgh Castle Hotel and a basement associated with the construction of Vauxhall House in 1905, which occupied approximately two-thirds of PS3, with little surviving archaeological evidence. Due to the proximity to the Edinburgh Castle Hotel, the piling design required an area 8m wide along the west side of the site. As a basement occupied the greater part of the site, monitored excavations were confined to an area, approximately 2m wide along the western boundary and at the southern end.

Excavations along the west side revealed that the passage shown on historic maps had been grossly disturbed by the construction of a brick terrace wall along the western boundary, adjacent to the Edinburgh Castle Hotel, the basement wall and services within passage between the two walls. No relics or archaeological features were exposed; however, at the southern end of the passage, a section of sandstone wall foundation blocks had been incorporated into the brickwork of the basement wall (Figure 4.4, Figure 4.5).

The east-west aligned sandstone blocks match the northern extent of the stables shown on the 1865 plan of the site (Figure 2.5); however, the northern extension of the sandstone blocks do not seem to align with the stables. It is possible that these blocks may be associated with the c.1834 two-storey brick building which stood on site until 1905 or the c.1880s ‘Roofed Yard’ to the north of the stables; however, given the lack of associated archaeological features or deposits, these remains cannot be firmly interpreted. Figure 4.6 presents the surveyed location of the blocks overlaid on a 1907 plan and show the blocks are in alignment with the eastern wall of Vauxhall House but are located to the south of its mapped location.

Excavations to the south of the basement confirmed that this area had also been disturbed during construction of Vauxhall House.

The Clearance Certificate for PS3 was issued by the Primary ED on 3 April 2019.

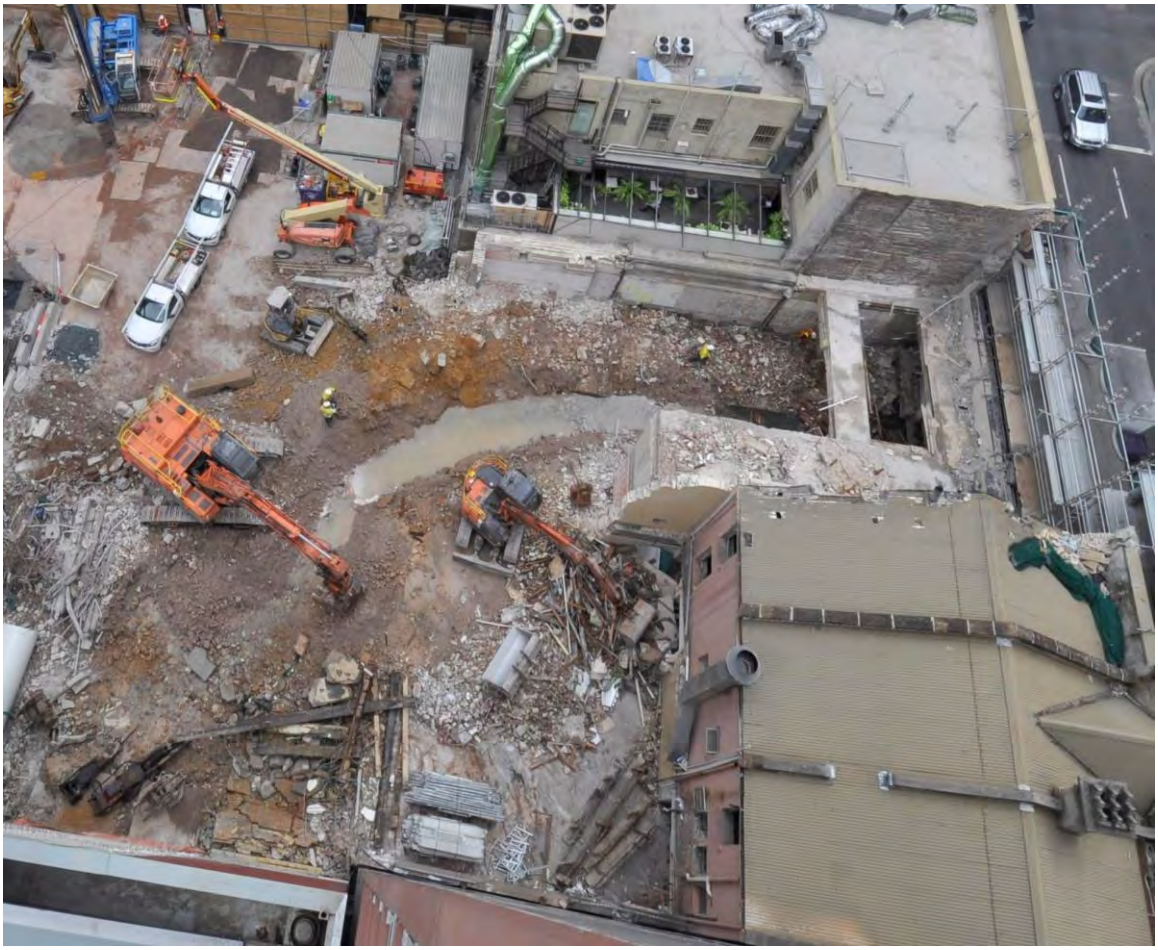

Figure 4.3 Aerial view of PS3 and PS4 on Bathurst Street and the trench excavated by Delta to drain the site (JHCPBG JV).

Figure 4.4 View south of sandstone blocks during excavation.

Figure 4.5 View north of sandstone blocks post-excavation.

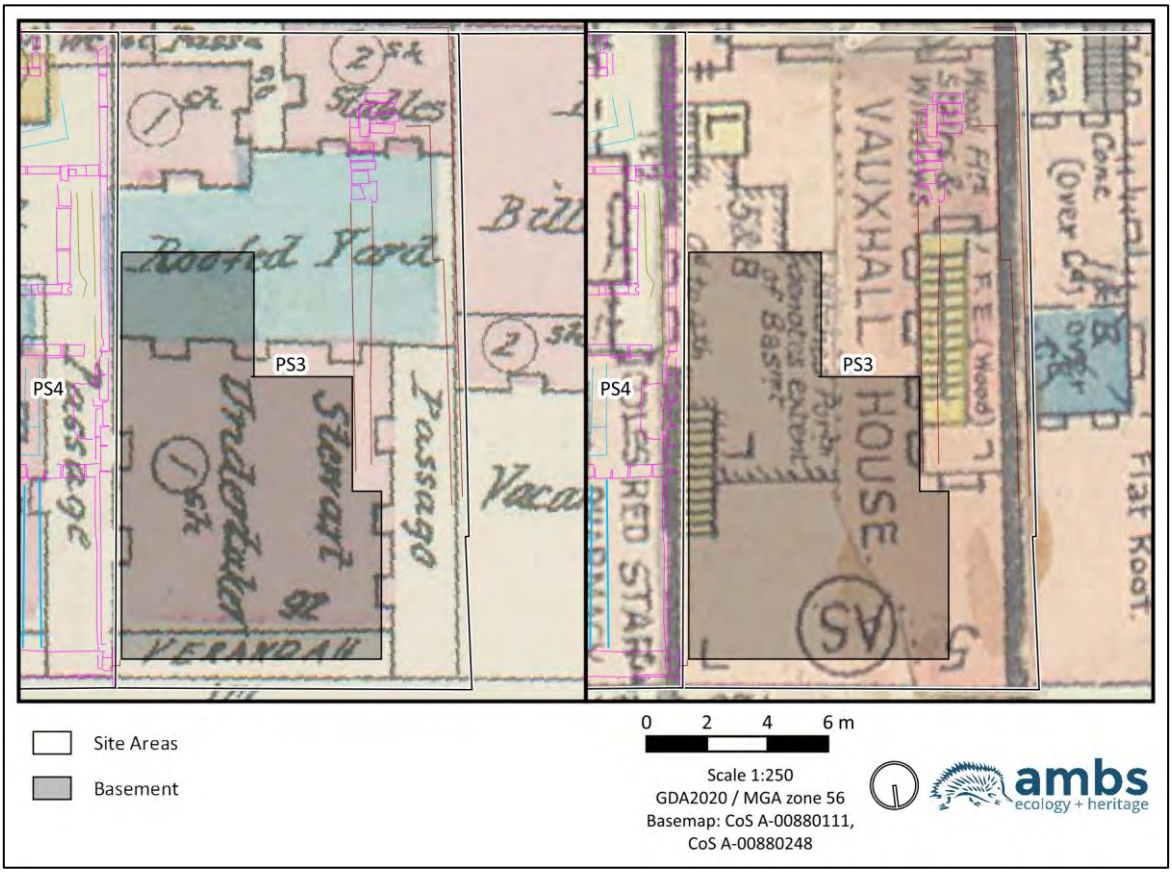

Figure 4.6 Location of the sandstone blocks overlaid on Dove's 1880 Plan and the Post-1924 Block 168-170 of the Fire Underwriter's Association of NSW Survey Plans of the site.

4.2.4 PS4

Archaeological works commenced on 20 May 2019 with monitoring for the piling trench along Bathurst Street. Once the concrete slab was removed sandstock bricks, slate mortar and sandstone foundation blocks were immediately apparent. The remains of a sandstone cellar located at 135 Bathurst Street was revealed, this aligned with the c.1882 building. The pilling trench was excavated to the base of the cellar, where a step out of the cellar wall was initially interpreted as representing a paved floor at a depth of approximately 1.8m (Figure 4.7, Figure 4.8). A demolition fill was identified within the cellar deposit relating to the backfilling of the cellar with the base of the deposit containing early sandstock brick rubble. No other artefactual material was revealed during the monitoring works. The cellar was excavated fully during the open area excavations discussed below.

The Clearance Certificate for the PS4 piling trench along Bathurst Street was issued by the Primary ED on 30 May 2019.

Figure 4.7 Cellar wall identified during monitoring, post excavation.

Figure 4.8 Location of areas monitored for piling trench.

5 Open area excavations

Open area excavations began on 14 June 2019 and were completed on 23 July 2019 and the Clearance Certificate was issued by the Primary ED on 1 August 2019. The following discussion of PS4 is structured using the latest buildings on site prior to demolition; a terrace row of three shops with residences above, constructed in c.1882 (Houses 135, 133 and 131). The terrace building was constructed with substantial sandstone footings, which provided the boundaries between each excavation area in accordance with the address. Each house was divided into rooms: room 1 of each house addressing Bathurst Street with the room numbers running sequentially from north to south in each house. An overview plan of the houses identifying each room is shown in Figure 5.1. Site plans for each area are located in Appendix A.

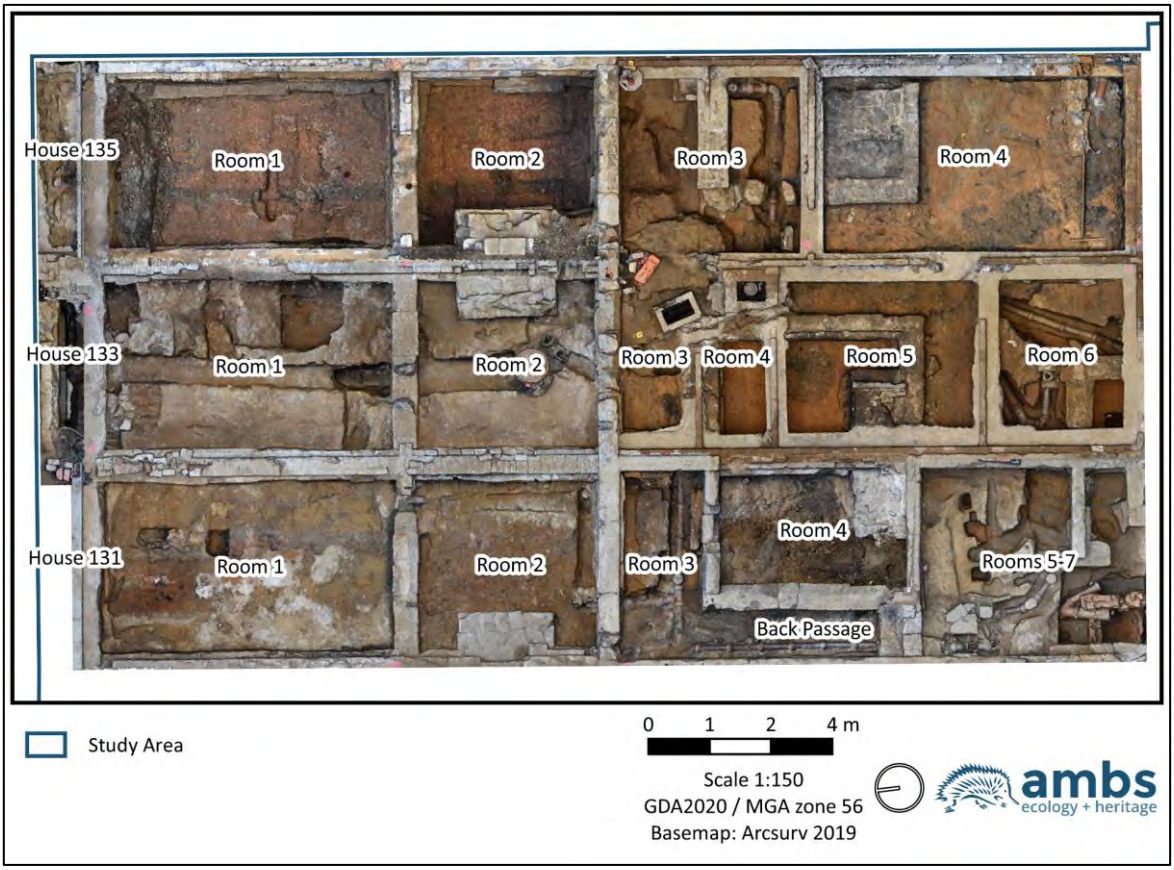

Figure 5.1 Orthographic image of PS4 at completion of excavations, annotated with house and room numbers.

5.1 House 135

Excavations within rooms 1 and 2 revealed a substantial quantity of rubble fill [1006] underlying the concrete slab, containing a modern service running approximately north-south through the centre of the rooms. The fill in these rooms was excavated by machine to a depth of approximately 2m, revealing a large sandstone cellar in both rooms 1 and 2. The walls of the double cellar consisted of six courses of sandstone, with a seventh course at the base of the cellar stepping out [1025, 1243, 1245, and 1254]. The sandstone footings were topped with sandstock bricks, which

formed the exterior and party walls of the terrace, with rooms 1 and 2 measuring 3.59m x 7.13m and 3.59m x 3.66m respectively (Figure 5.2, Figure 5.3).

In room 2, a sandstone and sandstock brick chimney pad [1408] was set into the eastern wall, mirroring a similar pad in House 133. At the base of the cellar, a small channel [1479] was cut into the C horizon natural soil profile, running north-south through both rooms 1 and 2, turning sharply to the west around the chimney pad, and appearing to continue under the western wall of room 2 [1245]. This was interpreted as being a drainage channel for the cellar. A small bottle dump [1471] was identified in the cellar of room 2, cutting into the drainage channel immediately adjacent to the chimney pad (Figure 5.4, Figure 5.5).

Figure 5.2 House 135, rooms 1 and 2 during excavation, view north-west.

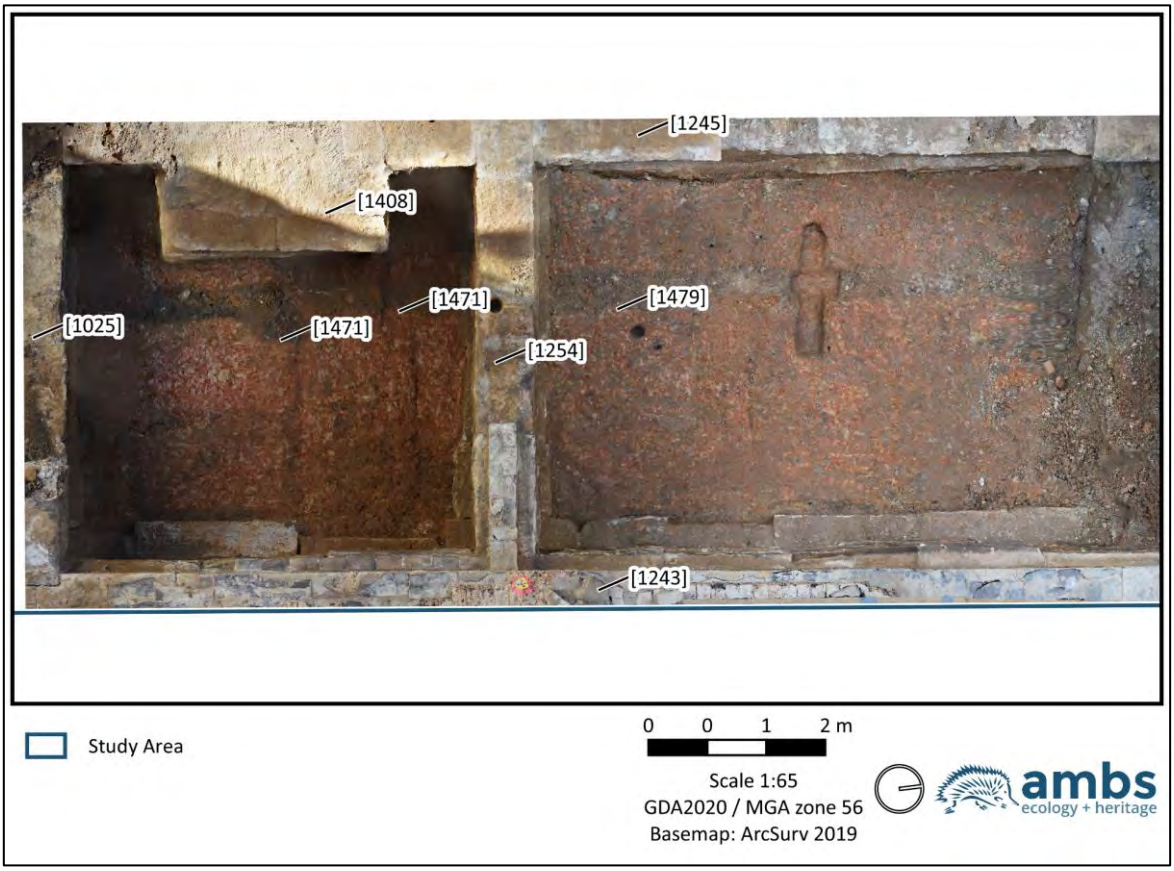

Figure 5.3 Orthographic image of House 135, Rooms 1 and 2 at the completion of works with key features annotated.

Figure 5.4 House 135, room 1 at completion of excavation, view north.

Figure 5.5 House 135, room 2 at completion of excavation, view north.

Removal of the slab overlying room 3 revealed a rough brick rubble surface [1043] underlying a thin brown fill layer (Figure 5.6). This layer was primarily made up of dry-pressed modern bricks, dating it to the twentieth century, and contained multiple services, as well as a single course brick lined drain [1051] (Figure 5.7).

Figure 5.6 Brick rubble surface [1043], view north.

Figure 5.7 Detail of brick drain [1051] within House 135 room 2.

The deposits within room 3 were heavily disturbed by later services, including salt glazed CEW and metal piping [1054, 1072, 1075, 1082, 1171, 1262, and 1277]. A number of associated features were also identified including a small brick sump [1073] associated with one of the CEW services [1075] with a small section of reused sandstock brick paving [1078] (Figure 5.8). Below this layer, additional services were identified prior to the B horizon soil profiles being reached. The northern footings within room 3 were consistent with rooms 1 and 2, with sandstone footings forming the foundations of the walls. Isolated rows of dry pressed bricks were also present, which formed the base of the walls of the structure. The eastern and southern footings of room 3 were concrete [1034]. The internal dimensions of room 3 were 3.82m x 6.31m.

A sandstock brick rubble surface [1049] was present underlying the concrete slab within room 4, consistent with room 3; however, patches of remnant cement surfacing were present. In the north-eastern corner of the room, a series of sandstone footings were present in an L-shape [1068], with some remaining patches of burnt shell lime mortar on top, likely to be associated with a hearth, suggesting that this room was a kitchen or laundry area (Figure 5.9). This area also contained the only underfloor deposit in House 135 [1164], associated with the 1882 terraces. Similar to room 3, the footings of room 4 consisted of concrete topped with dry pressed brick, with the room being 3.81m x 6.31m in size.

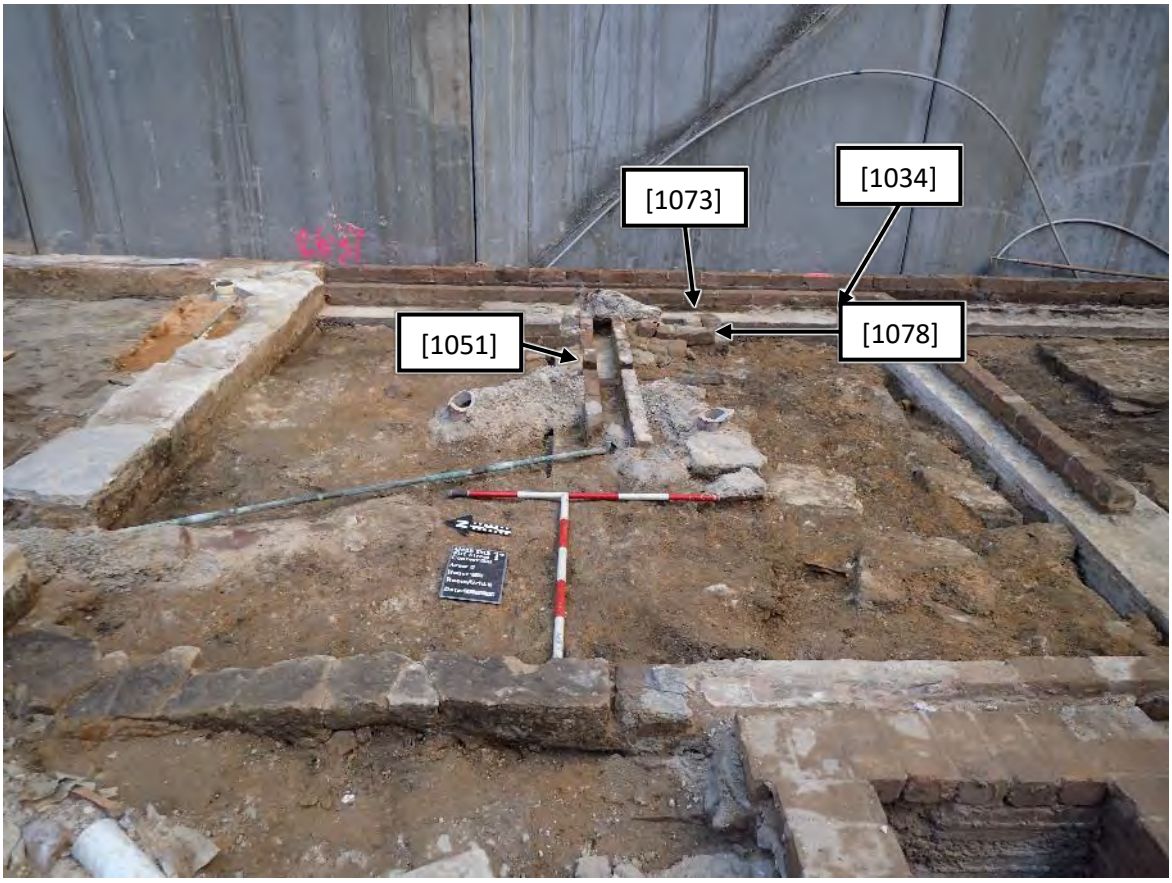

Figure 5.8 House 135, room 3 after removal of brick rubble surface, showing numerous services and drain features, view east.

To the rear of the room, south of the hearth, a number of CEW services were identified, as well as a course of rough-cut sandstone blocks running east-west near the southern boundary of the room [1180]. These are potentially the remains of yard structures associated with the original footprint of the 1882 building, as identified in the pre-1924 plan, (Figure 3.11). The removal of an overlaying service [1171] revealed a roughly rectangular cut filled with sandstock bricks [1214] continuing underneath the sandstone blocks [1180]. This brick dump is possibly associated with either an earlier structure, identified in Knapp's c.1826 plan or Louisa Terrace c.1831. It is unclear if the construction of Louisa Terrace c.1831 consisted of removal of the c.1826 structure or simply encompassed it into the new c.1831 tenement building (Figure 5.11).

Figure 5.9 House 135, room 4 prior to removal of underfloor deposit [1164], view east.

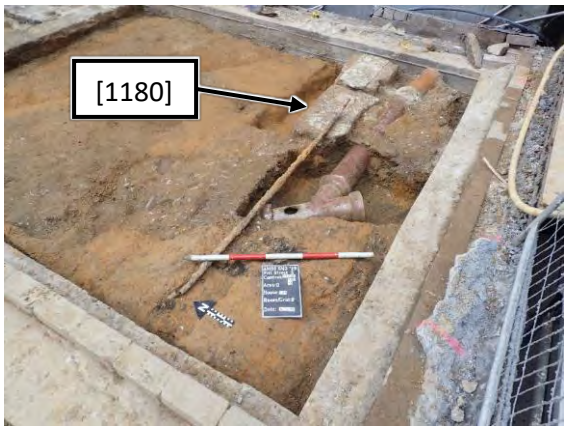

Figure 5.10 House 135, room 4 showing remnant sandstone footings [1180], view north-east.

Figure 5.11 House 135, room 4 brick dump [1214], view north.

5.2 House 133

Rooms 1 and 2 of House 133 featured a similar layout to House 135, with rooms of similar dimensions (3.59m x 7.13m and 3.59m x 3.67m respectively) and a chimney pad mirroring the one present in room 2 of House 135, however without the presence of a cellar. No significant artefact bearing deposits were identified within room 1, which had been partially disturbed by the excavation of a service trench [1233] on a north-south alignment through its centre, continuing into room 2 (Figure 5.12).

At the northern extent of room 1, a cut [1306] was identified, containing rough pink sandstone blocks [1361], with small remnants of shell lime mortar still present in the fill. These may be the remains of either the foundations for the front verandah of the c,1840s structure, or the earlier c.1826 structure as the cut [1306] is truncated by the foundations for the later terrace party wall [1245].

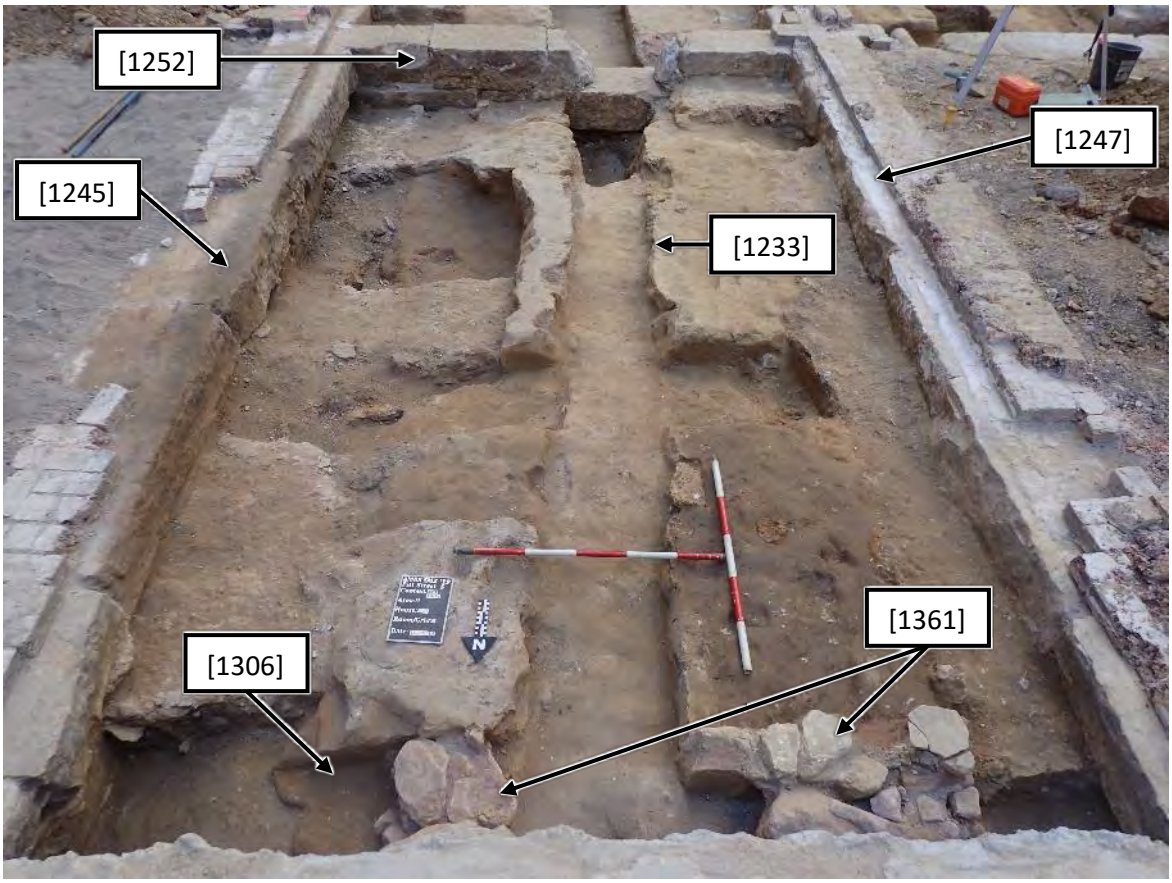

Figure 5.12 House 133, room 1, view south with key features annotated.

The primary feature identified in room 2 was a fibreglass sump with a steel lid [1109], which served as a junction point for the services in its associated cut [1233], continuing into rooms 1 and 3. On the eastern wall of the room was a sandstone chimney pad [1238] (Figure 5.13).

Room 3 was heavily disturbed by services, with PVC and salt glazed CEW pipes [1015 and 1038] running through the room, connecting it with the fibreglass sump [1109] in room 2 and the dry pressed brick sump [1010] in room 3. The room was smaller than rooms 1 and 2, measuring 3.57m x 1.52m, its western and southern walls consisted of dry pressed brick on concrete footings [1034], while the northern wall and eastern party wall were both founded on sandstone footings [1025 and 1037] (Figure 5.14).

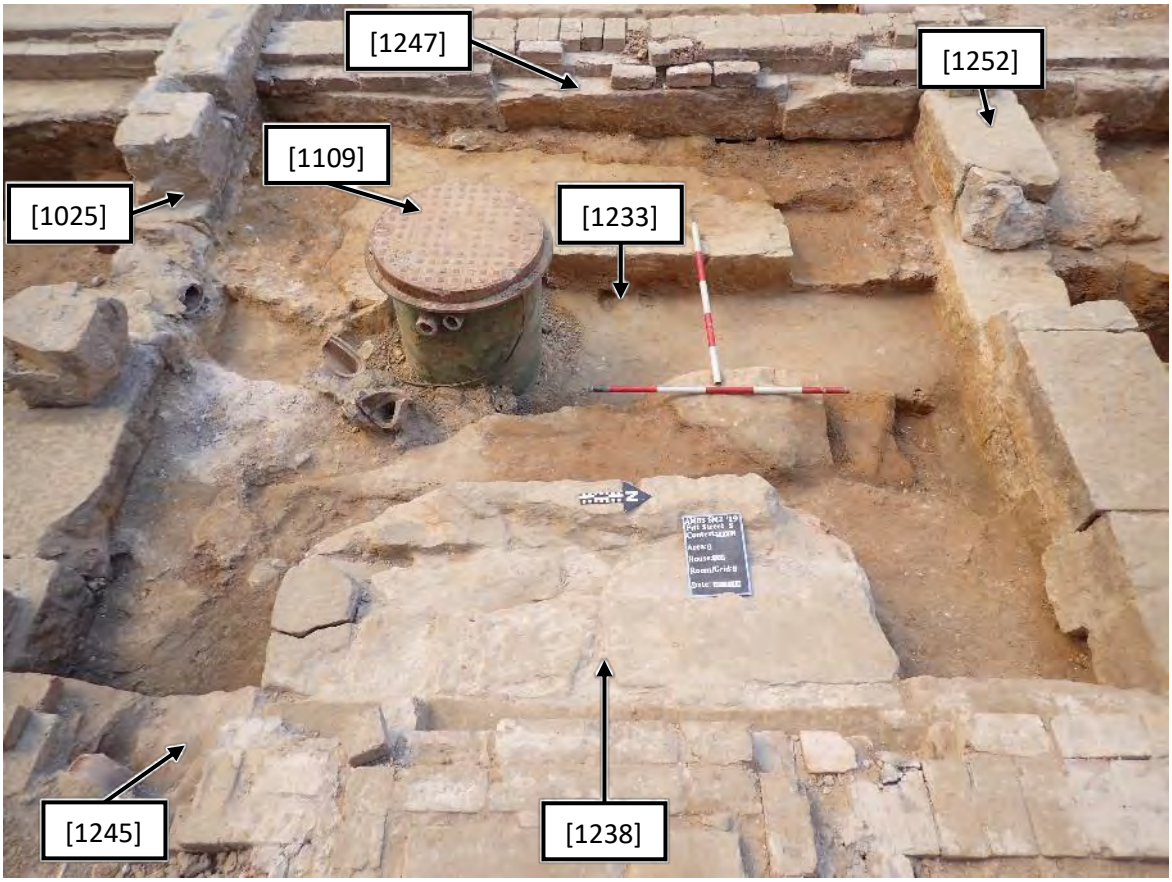

Figure 5.13 House 133, room 2, view west with key features annotated.

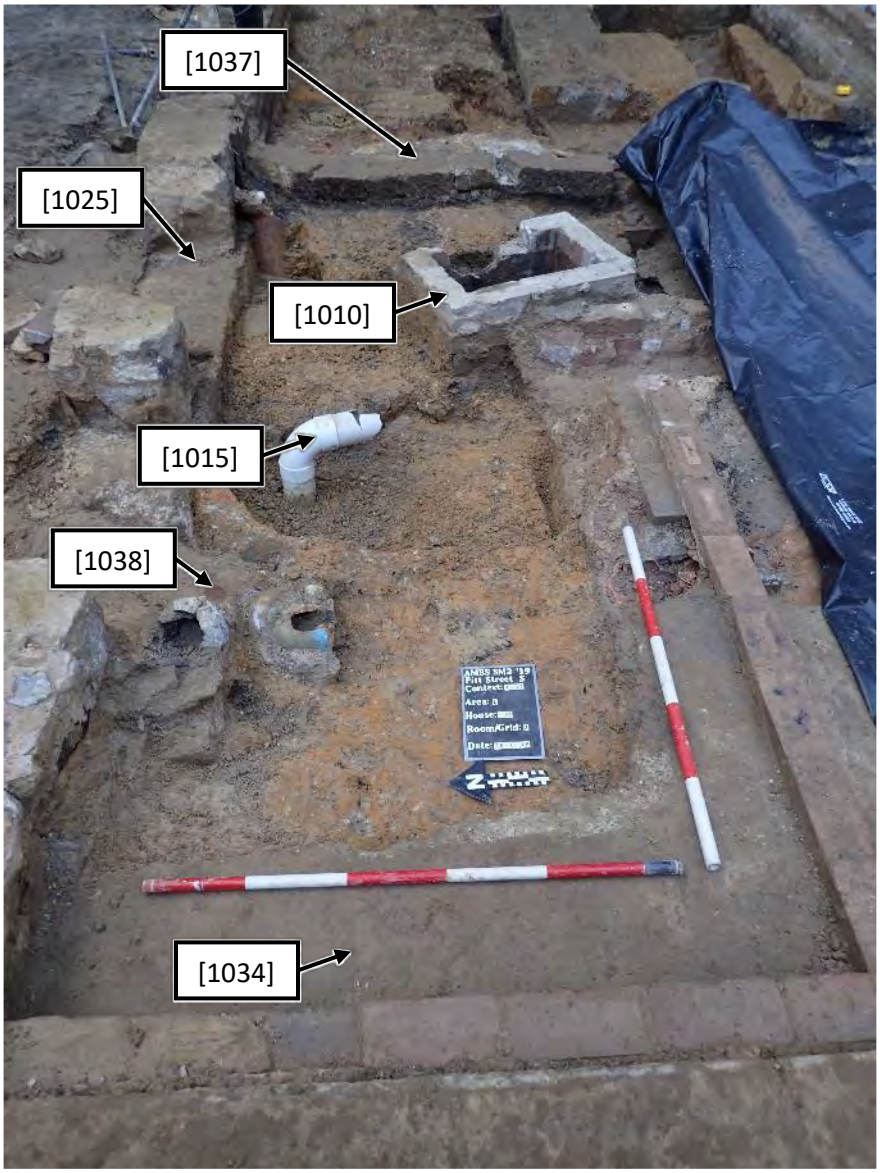

Figure 5.14 House 133, room 3, view east with key features annotated.

Room 4, measuring 3.57m x 1.36m had also been subject to some disturbance through the introduction of a utility [1038] running diagonally through the small room from the northern footing to the corner of the southern and western footing connecting to the sump in room 3. The southern and western foundations consisted of concrete [1034], while its eastern and northern foundations were sandstone [1093] (Figure 5.15). Along the northern footing, the sandstone was overlaid by the later concrete foundations, possibly representing an earlier iteration of the structure. A black silty sand deposit [1107] was revealed after the removal of an overlying rubble deposit [1090] which included slate fragments and larger sandstone cobbles. The black silty sand deposit was interpreted as an underfloor deposit containing glass, ceramic, bone and shell artefacts in high concentration, in a similar matrix to the overlying deposit.

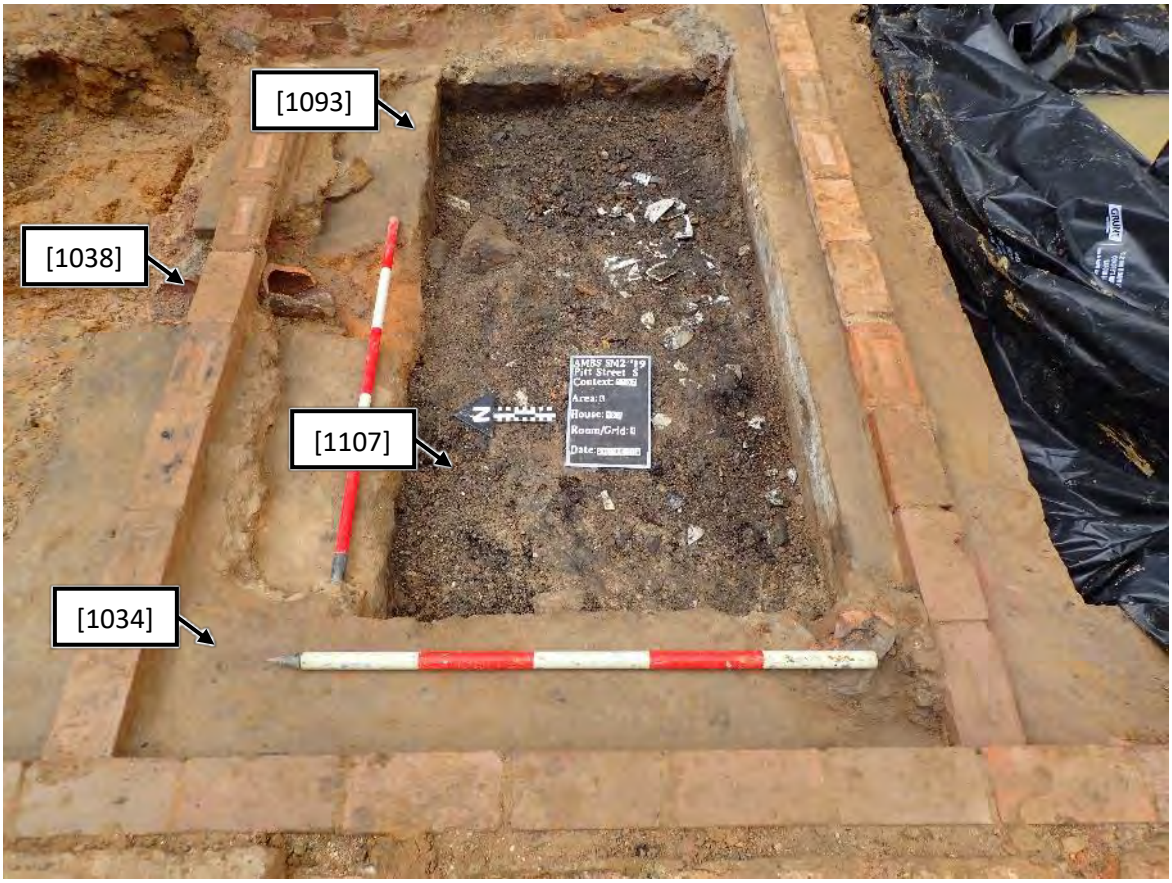

Figure 5.15 House 133, room 4, view east with key features annotated, post service removal.

Room 5 measured 3.57m x 3.96m and contained an L-shaped stone footing [1093], an extension of the northern and eastern footings, with a sandstone pad [1097]. The construction of the feature and deposit suggest that the feature was a hearth, either utilised as a kitchen or laundry (Figure 5.16). To the north and east of the hearth, enclosed by the sandstone footing was an underfloor deposit [1102], consisting of a dark brown sandy loam containing a variety of artefacts. This deposit directly overlayed natural clay profiles, except in its north-eastern corner, where a circular pit [1162] was identified cut into the natural soil (Figure 5.17).

Further investigation of the pit identified that it cut the foundation trench for the adjacent sandstone footings [1093], meaning that it postdates the foundations. Given the high proportion of charcoal in the fill of the pit, present in multiple thin layers, it was assessed that this pit was most likely a burn pit, with the charcoal layers representing individual burning events.

Room 6 was dominated by CEW services [1047 and 1141] which appear to connect to House 131 and continue north into room 5 of House 133. One of the CEW pipes [1047] connected to a modern toilet in the centre of the room [1031] (Figure 5.18). In the south-west corner of the room are some isolated sandstone footings [1091] which are likely to be associated with the 1880s configuration, however their function has not been confirmed. The room measured 3.57m x 2.97m, and was largely devoid of artefact bearing deposits, likely due to the disturbance caused by the later installation of services.

Figure 5.16 House 133, room 5, showing location of hearth [1097], after the excavation of the underfloor.

Figure 5.17 House 133, room 5, showing location of the burn pit [1162], pre-excavation.

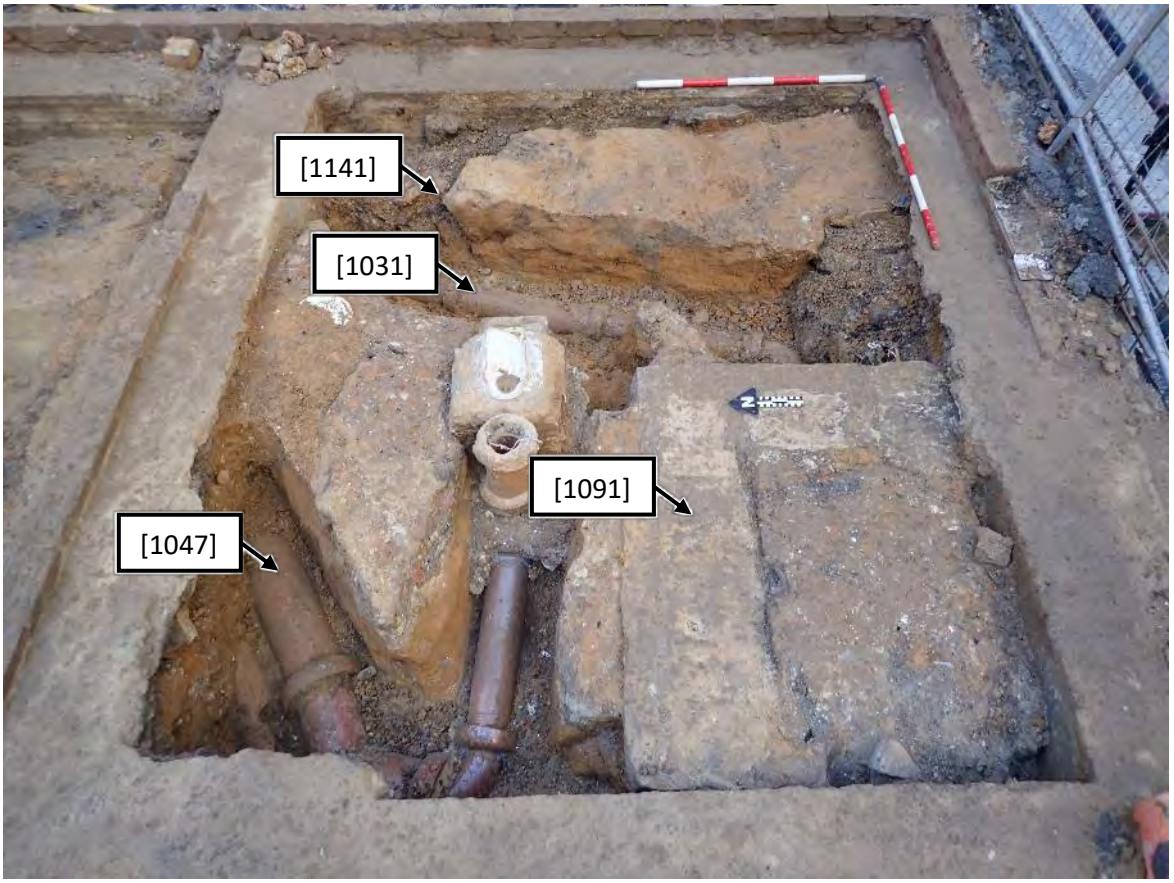

Figure 5.18 House 133, room 6, view east with key features annotated.

5.3 House 131

The configuration of the 1882 building was still reflected in the footings [1246, 1248, 1250], similarly, to houses 133 and 135. No underfloor deposits or services were identified within room 1, however a trench [1395] was identified running north-south and continuing into room 2, containing remnant footings in the form of degraded pink sandstone and sandstock bricks (Figure 5.19). This trench was truncated by the later 1882 foundations to the south. The location of the trench corresponds with the locations of earlier footings on site recorded in plans from c.1826 (Figure 3.14) and 1865 (Figure 3.7), indicating that the trench is likely the remains of the earlier 1820s or 1840s structure (Figure 5.20, Figure 5.21). The room also contained the remains of three compacted surfaces. Patches of a shell-lime plaster [1450] in the southwestern area of room 1, which in turn overlayed a sandy mortar layer [1463], present across the southern and eastern sections of the room and was directly above the A2 horizon. While in the western half, the sandy mortar came down onto a very compacted orange clay surface [1464] which overlayed the natural A2 horizon. It is likely this orange clay deposit is the compacted surface of the former side passageway to the earlier c.1820/40s construction with the c.1820/40s trench demarcating the western wall of the earlier building. In some areas the sandy mortar and in turn the shell lime deposit was capping the early trench. These two surfaces are likely contemporaneous with the sandy mortar layer acting as floor preparation for the shell lime surface of the interior of the later 1880s building.

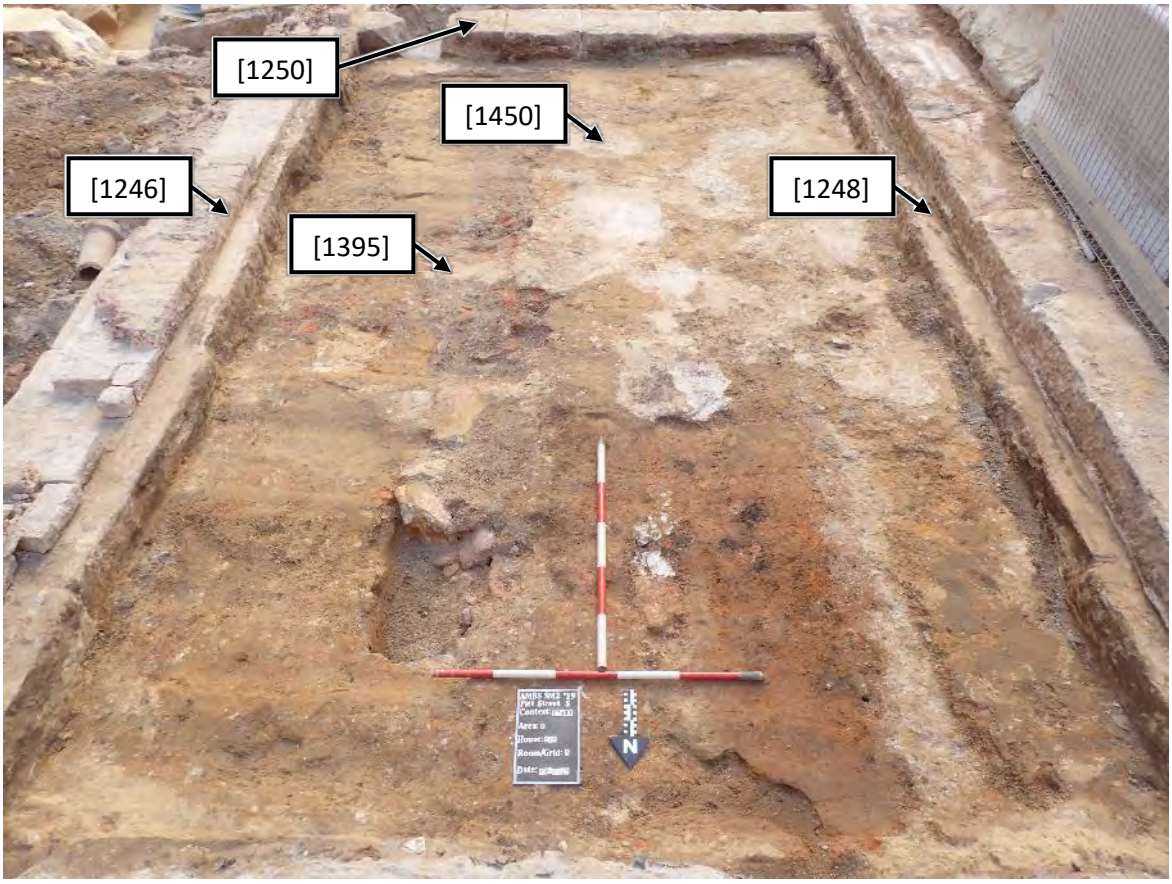

Figure 5.19 House 131, room 1, view south with key features annotated.

The earlier foundation trench [1395] continued into room 2. It is likely the trench originally returned to the east into either room 2 or 3 of House 133 however due to the disturbances within House 133 the trench cut was not identified and was likely removed during the works for the services. A chimney pad [1279] was set against the western wall in room 2, mirroring the layout of the front rooms in houses 133 and 135.

Figure 5.20. House 131, room 1, foundation trench for the early building indicated by arrow, view south.

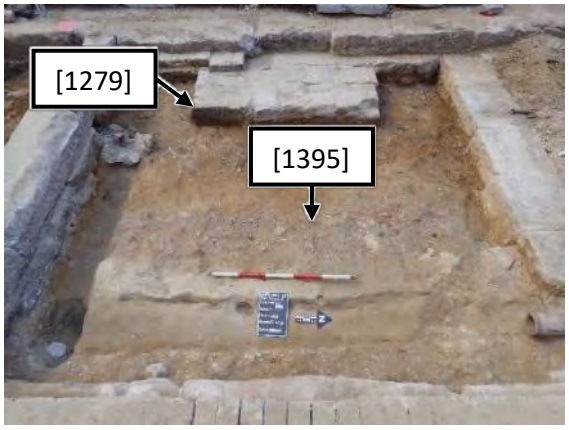

Figure 5.21 House 131, room 2 with earlier foundation trench indicated by arrow, view west.

Room 3 was an L shaped configuration and removal of the overlying demolition fill revealed sandstone flagging [1264] in large square blocks of varying sizes covering the north-eastern section of the room (Figure 5.32). The narrow part of room 3 running north south was likely a passageway for accessing the kitchen and rear yard area. Underlying the sandstone flagging was an artefact rich but mixed underfloor deposit consisting of yellow bedding sand and a dark grey underfloor layer. Beneath this was a salt glazed service pipe, which was connected at its western end to a more modern coarse earthenware service pipe [1218] which in turn connected to the service pipes running the length of the passageway.

Figure 5.22 House 131 room 3 and back passage, showing sandstone flagging and services, view south.

The removal the sandstone flagging, associated underfloor deposit and subsequent deposits revealed eight post holes cut into the natural B horizon. (Figure 5.23). The post holes appeared to run roughly in two parallel rows east to west, it is possible these were associated with an earlier timber structure; Dove's 1880 plan (Figure 3.25) of the site depicts a shed adjoining the rear of the building present on site at that time. As shown in Figure 5.22, the passageway was primarily occupied by CEW services underlying varying fill deposits.

Archaeological deposits within room 4 had been substantially disturbed during clearance of the demolition of the 1882 terrace row. Almost all the underfloor deposit had been removed and replaced by modern demolition material [1212]. This demolition fill overlay a mixed layer of demolition rubble and disturbed underfloor deposit [1284] present across the northern and central portions of the room, with some remnant intact underfloor deposit present in the south-western portion of the room [1268], and a chimney pad present in the south-western portion of the room [1270] (Figure 5.26).

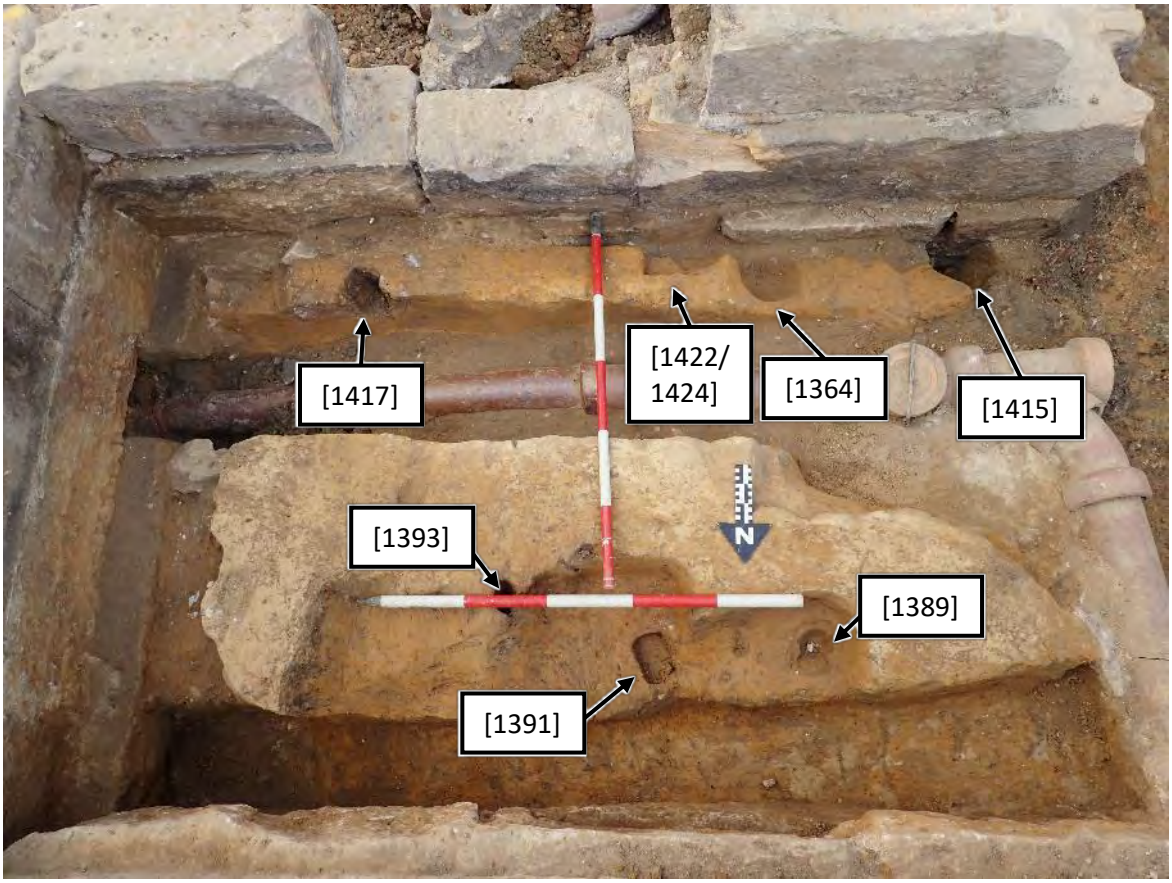

Figure 5.23 House 131 room 3, view south with key features annotated.

Figure 5.24 House 131, room 4 after excavation of [1283], view south.

Figure 5.25 House 131, room 4, post excavation, view south.

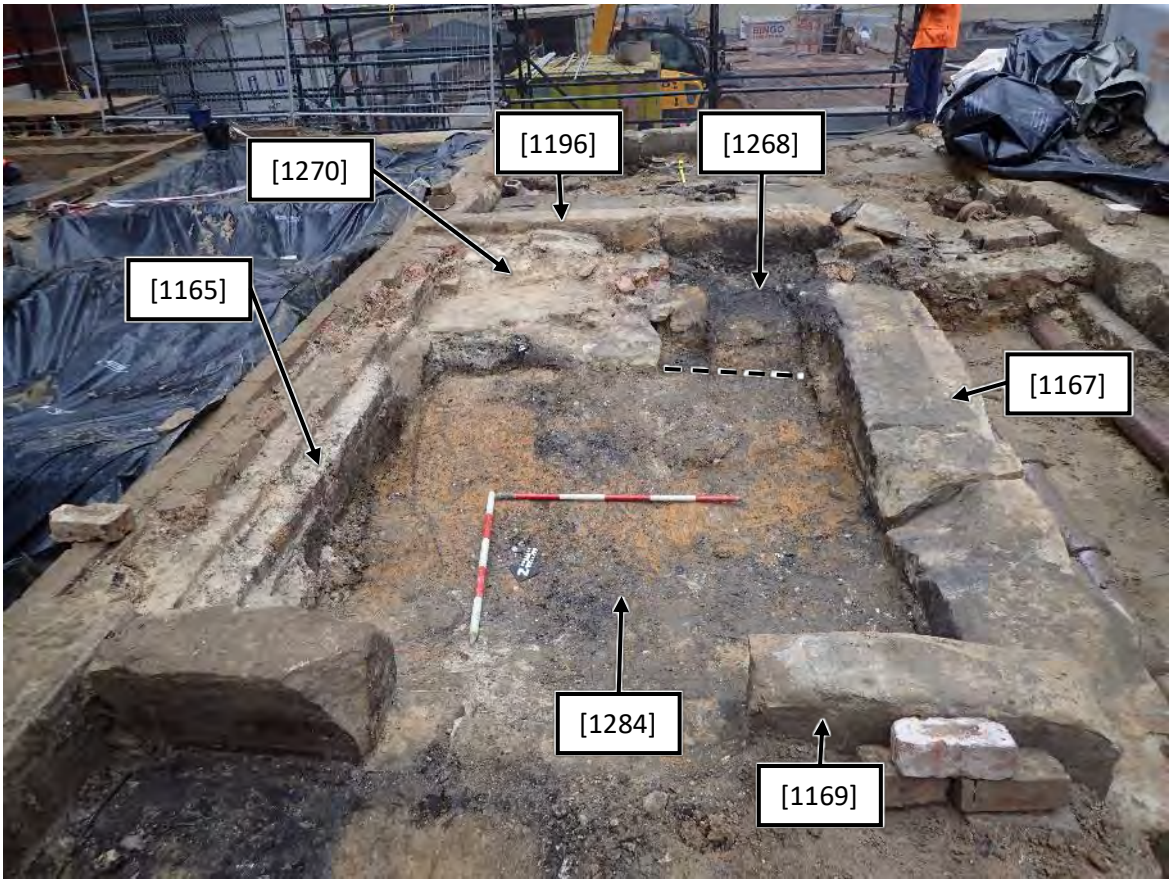

Figure 5.26 House 131 room 4, view south with key features annotated. Approximate boundary between deposits [1268] and [1284] marked by a dotted line.

The removal of the intact underfloor deposit [1268] revealed an additional brown silty sand artefact bearing fill [1283], which was initially interpreted as an additional underfloor deposit before later being identified as a part of the fill for the adjacent wall [1196] (Figure 5.24). After the removal of the disturbed underfloor [1284] overlying the majority of the room, natural soil profiles were identified with a number of rat burrows dug into them (Figure 5.25).

After the removal of the overlying demolition rubble from room 5, sandstone flagging [1185] which comprised large square-rectangular pavers of differing sizes was identified covering much of the room, cut by a number of later services (Figure 5.27). This sandstone flagging was consistent with the flagging identified in room 3 indicating these two rooms/areas were capped by this flagging at the same time. The room was edged on all sides by sandstone footings [1165, 1166, 1167, 1169]. Removal of the sandstone flagging revealed piping connecting the services in the eastern and western portion of the room, as well as additional services underlying the paving in the south-western corner of the room (Figure 5.28, Figure 5.29).

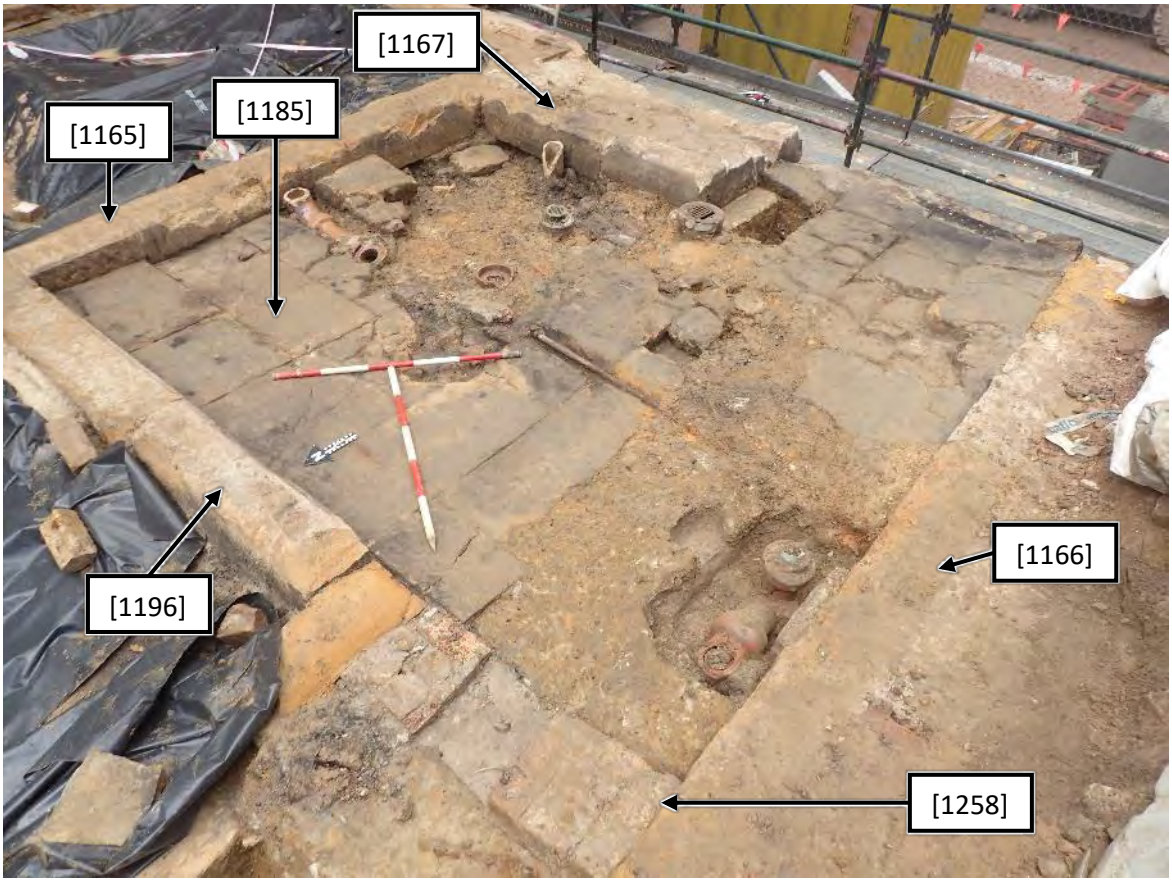

Figure 5.27 House 131 room 5, view south-west with key features annotated.

Figure 5.28 House 131 room 5, overview of services, post removal of flagging, view west.

Figure 5.29 House 131 room 5, detail of services in south-western corner, post removal of flagging.

Removal of the flagging and some services revealed a number of underlying features, including a WC in the south-western corner of the room (Figure 5.29). The WC [1330] was constructed of unfrogged sandstock bricks and filled with redeposited natural clay [1413], which contained a small number of ceramic, glass, metal, bone, and shell artefact fragments. The WC had been disturbed by the installation of a CEW service pipe [1413] indicating upgrading of the WC likely for continued use. The top section of the north-east corner of the WC was rebuilt around the pipe (Figure 5.30). The western wall of the WC was capped by the sandstone footings of the 1882 building suggesting that the WC was closed/infilled by 1882.

Figure 5.30 Detail of the WC, view north post excavation.

Removal of the overlying flagging in north-east area of room 5 revealed a roughly L-shaped trench cut into the natural soil profiles [1397], truncated by excavation for later services (Figure 5.31). The trench cut contained a sandy charcoal fill with crushed sandstone deposits [1388], underlying this was a deposit with remnants of shell lime mortar inclusions [1398], suggesting that the trench was relatively early. Excavation of the fills revealed a series of five post holes within its footprint [1421, 1455, 1466, 1473, 1477, 1481] (Figure 5.32, Figure 5.33). The L-shaped trench and the locations of these post holes roughly align with the extent of Louisa Terrace as shown on the 1831 plan of the study area (Figure 3.6), indicating they may be associated with its construction. The trench cut appears to continue east into the footprint of House 133, however it was not identified. Of the post holes identified, all were square with the exception of [1455], which was a circular cut, 130 mm wide and approximately 10mm deep. Additionally, it appears that two post holes were excavated at one location, with [1473] being cut by [1477]. Both post holes contained the same fill context, indicating that they are of the same phase. [1473] also contained a small eastern extension, which contained a whole brick as part of its fill, likely to provide support to the post. Louisa terrace was extended c.1845, it is likely these features represent that phase of construction.

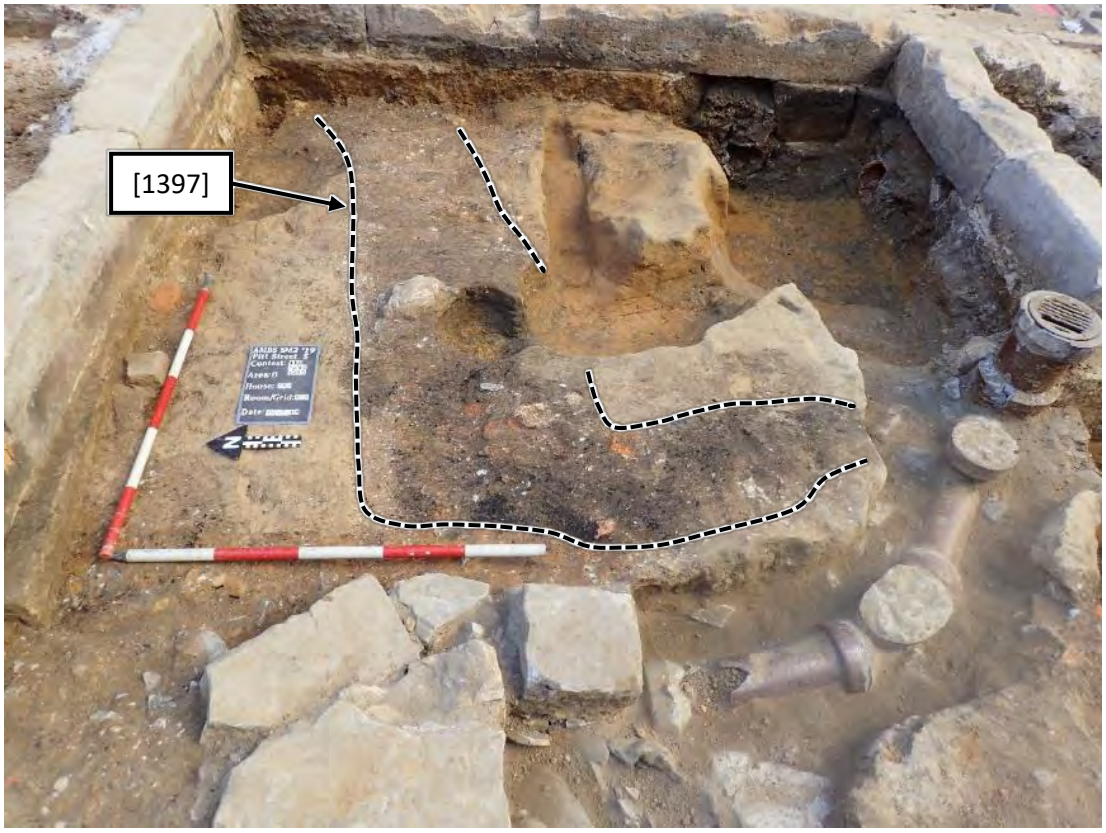

Figure 5.31 House 131 room 5, view west. Note the earlier trench cut [1397] indicated by dashed line, truncated by later CEW services.

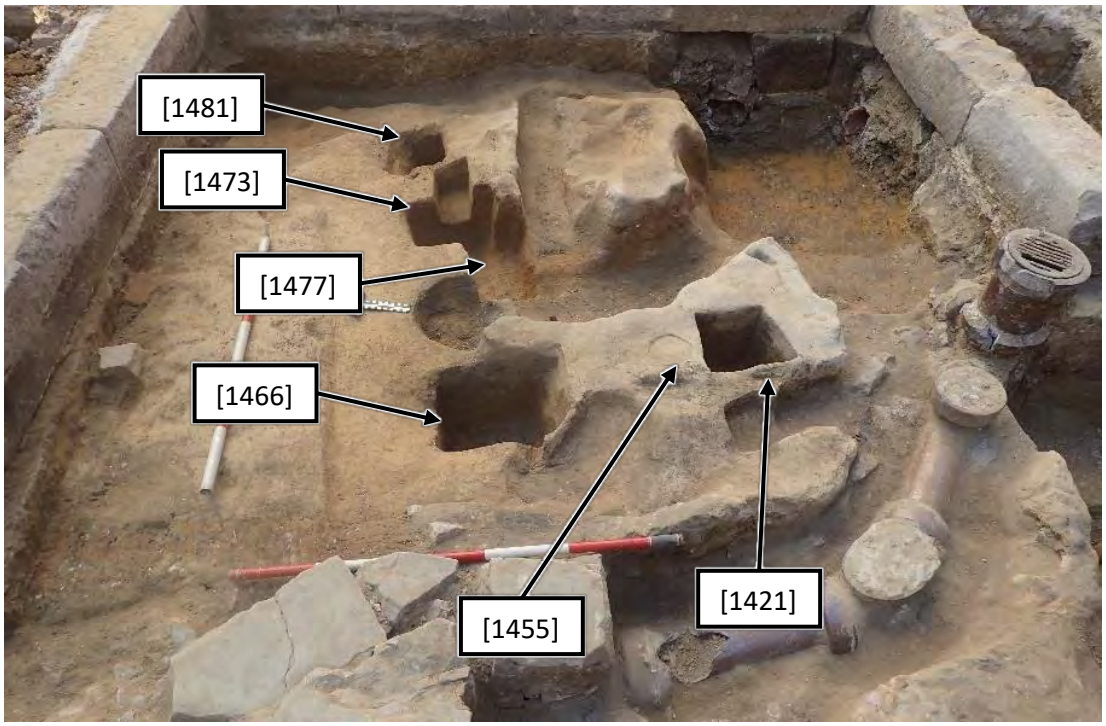

Figure 5.32 House 131 room 5, view west after removal of fill from trench cut [1397], annotated with post hole locations.

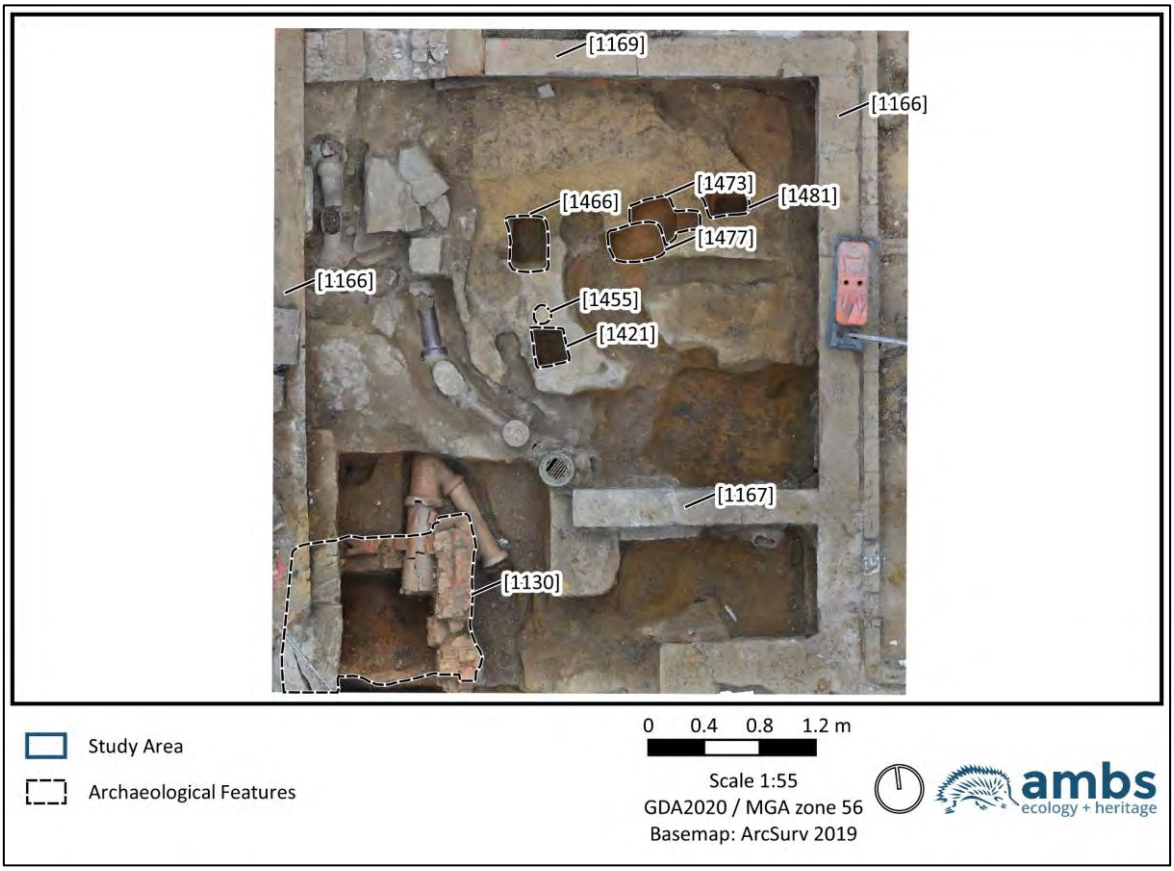

Figure 5.33 Orthographic image of House 131, Room 5, annotated with key archaeological features.

5.4 Summary of archaeological investigations

In accordance with the AMS, no archaeological investigations were undertaken in PS2, as it had been subject to heavy disturbance by the construction of a basement level in the twentieth century. Monitoring within PS1 identified that the construction of Druids House in 1903 had removed all evidence of previous occupation on site, with the demolition of the existing slab revealing natural soil profiles. PS3 was also grossly disturbed, with only a single row of sandstone blocks identified, associated with Vauxhall House, constructed c.1905.

During early works within the project area demolition contractors inadvertently broke through a water pipe, causing part of the site to flood. To mitigate this damage a large trench was excavated; without consultation with AMBS, to catch the water. As a result, these activities caused extensive damage to PS3 and part of PS4, causing a loss of potential archaeological resources, specifically in PS3 and a smaller section of PS4 (Figure 4.3).

Archaeological evidence within the Pitt Street South site was concentrated in PS4. The archaeological excavations revealed two phases of occupation on site. Removal of the extant slab revealed sandstone foundations associated with the 1882 building which occupied the site until it was demolished for the metro works in 2019. The footings of these structures were substantially intact, and largely matched the footprints marked in the 1920s plans of the study area, overlaid with later concrete footings associated with extensions (Figure 3.22).

Remains associated with the 1882 terrace included chimney pads [1238, 1279, 1408] in room 2 of each of the houses, a large double cellar in rooms 1 and 2 of House 135 [1243, 1245, 1254], and hearths in houses 131, 133 and 135 [1270, 1068, 1097], as well as underfloor deposits in rooms 3 [1271] and 4 [1268, 1284] of House 131, rooms 4 [1107] and 5 [1102] of House 133, and room 4 [1164] of House 135. Many of these deposits had been impacted by later work within the footprint of the buildings, mainly related to the installation of services which were present in the majority of the rooms in all three houses, but also through works associated with the demolition of the structures, which impacted the underfloor deposit in House 131, room 4.

Archaeological remains associated with the early occupation of PS4 were revealed once later features and deposits were removed. In room 1 of House 133, a portion of a foundation trench containing remnant pink sandstone footings [1361] was identified along the northern boundary of the property. These footings could be associated with the first property constructed on the PS4 site, a brick building constructed by Reuben Hannam recorded in E. Knapp's c.1826 plan and by William Cordeaux in 1828 where he reported *…two good brick Buildings in the Centre of the Ground newly built,* one addressing Bathurst Street and the second at the back of the lot. Sometime between 1831 and 1865 (possibly 1848) the original cottage addressing Bathurst Street disappeared to be replaced by two buildings addressing Bathurst Street, one with a veranda (Figure 3.7). It is also possible the footings are associated with this second phase of occupation; however, it is unlikely that the veranda was constructed using sandstone footings. Additionally, the alignment of the footings was along the property line, the same as the c.1826 cottage whereas the c.1848 building the front of the property was set back due to the veranda.

The trench [1395] identified in House 131, rooms 1 and 2 which ran on a north-south orientation aligned with the western boundary of the 1826 cottage and the c.1848 building, the later c.1848 building seems to have been constructed along the same western alignment as the 1826 cottage allowing continued access to the rear properties through the passageway. The trench consisted of a sandy clay fill with sandstock brick fragments with redeposited A horizon and fragments of pink sandstone, similar to the pink sandstone footings identified along the northern boundary [1361]. This suggests that it is associated with the c.1826 phase of development of the property. It would seem incongruous that evidence of the 1826 cottage survived where the later c.1848 building did not. However, it is possible that the construction of the 1882 building removed the c.1848 remains during demolition and ground preparation of the site but did not go deep enough to remove all evidence of the 1826 cottage.

Room 3, House 131 revealed a series of post holes [1367, 1389, 1391, 1393, 1415, 1417, 1422] on an east west alignment underneath a series of later CEW service pipes. The 1880 plan depicts a shed built at the back of the c.1848 building. The postholes align with the approximate location of the shed and are likely associated with its construction (Figure 3.8). No other evidence of the shed was revealed, as these types of additions to buildings are typically constructed out of temporary materials archaeological evidence is typically limited to postholes.

The sandstock brick cess pit/WC [1330] in the south-western corner of the site corresponds with the location of the cess pit identified in the 1826 plan of the site, also shown on the 1865 and 1880 plans, suggesting that the cess pit/WC was initially associated with the two brick buildings constructed by Reuben Hannam. The historical plans indicate the cess pit/WC remained onsite and possibly in use until at least 1880, with the western wall of the cess pit/WC was capped by the sandstone footings [1166] for the 1882 terrace. The presence of the later CEW service pipe also

indicates continued usage of the cess pit whereby it was converted to a WC until its closure in the 1880s. The WC would have serviced the numerous properties on site including the tenements, which stood on site from c.1826 to the late 1880s, indicating the need for the later upgrade of the WC as indicated by the CEW service pipe as no other cess pits or WCs were located on the lot.

6 Artefact analysis

Archaeological remains contribute to an understanding of the history of occupation and settlement of a specific place that often the historical record has not recorded. In addition to the structural remains the artefact assemblage recovered during excavations aids in the understanding and interpretation of a place and provides valuable information pertaining to the lives of individual people occupying the site. The assemblage can provide information that has not been recorded in the written historical record, of how people lived and interacted with each other.

The artefact analysis presented in this report has been undertaken by a specialist in-house team under the direction of the Primary Excavation Director, Jennie Lindbergh and site director Lian Ramage. All artefact processing and analysis has been undertaken in accordance with AMBS' system, developed by Lian Ramage and Madeleine Rodwell to be consistent with standard artefact databases for the Sydney and wider regions and is and compatible across the excavation sites encompassed in the Sydney Metro project.

6.1 Methodology

The methodology used to catalogue artefactual material was developed with reference to 'Exploring the design and structure of artefact cataloguing' (Casey, 2004), 'The role of artefact catalogues in Australian historical archaeology' (Crook et al, 2002) and reference to the NSW Heritage Council guidelines Assessing the Significance for Historical Sites and Relics. Cataloguing the artefactual assemblage essentially creates the data from which analysis and interpretation are based with the analysis of the material forming the first stage and interpretation the second stage of this process. Statistical and functional analysis have been undertaken to enable full interpretation of the artefact assemblage for the site.

A catalogue database and methodology were developed with individual catalogue numbers assigned for each artefact. All artefact entries included the context number and location information, the material (stoneware, porcelain, glass, bone etc.), the function (food, alcohol, household, etc.), specific function (serving, teaware, etc.), type/shape (cup, plate, bone element etc.), the portion and percentage of each item, the country of origin, measurements (in mm), MIC/NISP/MNI and fragment counts, and box number (the location of item for storage). Additional item specific categories were included where relevant.

Statistical analysis allows for the quantitative elements of the assemblage to be recorded. Statistical analysis of the discrete categories within the artefact assemblage included minimum item counts (MIC) and fragment counts for glass, ceramic and building materials, number of identified specimens per taxon (NISP) and minimum number of individual (MNI) counts for bone/shell material. Functional analysis of the assemblage allows the relationships of the material to be discussed in terms of usage and allows inferences to be made regarding the types of activities occurring on site and the interaction between the specific artefactual material and the human agent.

Minimum Item Counts (MIC) were identified where conjoins were evident, either within the same context or across contexts, with this information recorded within the database. Where fragments were too small and the only identifiable feature able to be ascertained was, for example, pattern, the fragments were recorded as one entry and listed as fragments.

All faunal material was quantified using the Number of Identified Specimens (NISP) after Lyman (1994) where a bone, tooth or fragment thereof was recorded as one specimen.

An internal 'Pattern Database' was developed for ceramic patterns which could not be identified by name. Patterns were assigned a number where significant features of the pattern could be noted (pagoda, shells, etc.). This number was used every time it was found until the pattern name was identified and then it was replaced on the database. Patterns where no significant features could be identified (floral border, etc.), the pattern was assigned 'unidentified'.

Ceramic and glass artefacts have been quantified by recording the fragment count, based on the number of fragments that are present, as well as the MIC, or number of items that the fragments represent within each context, based on diagnostic portions. For example, a complete or near complete rim (with or without associated body sherds) in one type of material will represent one item; a rim and base in the same material type will represent one item unless other reasons to differentiate them are observed; and more than one rim in the same type of material will represent more than one item. In the case of underfloor deposits, the MIC has been calculated within each square. As such, this is likely to result in an overestimate of the vessel count within these contexts.

Analysis of the ceramic assemblage was undertaken with reference to a number of pattern and marks texts and databases to assist in the determining of manufacturing dates (Transferware Collectors Club, 2022; Ford, G, 1998; Godden, G.A., 1999; Boow, J., 1991; Jones, O.R. et al., 1989; Toulouse, J.H., 1971).

Animal bone identification was undertaken with reference to modern comparative reference collections and faunal anatomy texts (Adams and Crabtree, 2008; Fillios and Blake, 2015; Schmid, 1972).

To answer research questions the following attributes were recorded:

- Manufacturing Method: Where possible, the manufacturing method for artefacts were identified from the features observable. For example Machine or Hand made, Cut,
- Manufacturing Features: The observable features of artefacts were noted to assist in identifying manufacturing method and other datable data – this include bases', finishes, profiles, etc.
- Decoration: Where relevant, the decoration of artefacts were recorded to identify different decoration and pattern types.
- Maker's Marks: Where identified, maker's marks were recorded to assist in identifying datable data.
- Taxonomic Identification: Individual specimens were identified to the most specific taxonomic level possible as determined by the morphological features observable.
- Skeletal Element: Each bone was identified to specific element where possible. Where fragments were unable to be identified to specific element then broad categories were used to classify them, Long bone, Irregular bone, and Flat bone.
- Modification: Surface modification was noted including butchery marks, burning, scavenger tooth marks, pathology, and any other distinguishing marks.
- Age: Epiphyseal fusion and suture marks were noted where possible to differentiate between adult and juvenile specimens in domesticated species.

- Specimen Count: The NISP count was used to identify the number of a specimens (a bone or tooth or fragment thereof, or each individual fragment of shell) within the assemblage. The MNI count is a derived unit and is used to identify the actual' number of individual animals on site calculated by using the NISP number.
- Shell Species: Individual specimens were identified to the most specific species possible, based on the shell fragments remaining.
- Condition. Surface appearance and condition of shell material, including any damage, degradation or breakage that may have occurred, deliberate or incidental.

Where attributes were not applicable (e.g., ceramic vs bone) these were not recorded.

6.2 Artefact discard policy

The approach to sampling and discard of artefacts recovered from the Pitt Street site was undertaken in accordance with the requirements identified in *Assessing Significance for Historical Archaeological Sites and 'Relics'*, and:

- the integrity of the artefact/assemblage.
- The significance of the assemblage.
- the significance of a particular artefact (where the associated assemblage may not be significant).
- the contribution that the artefact/assemblage makes to an understanding of the site.
- the response of the artefact/assemblage to the site-specific and relevant wider research questions.

6.3 Artefact overview

A total of 3,709 artefacts or 5,579 fragments plus 1,206 NISP faunal remains and 1,312 Shell were found across Pitt Street Station South.

The number of artefacts catalogued by specialists according to their eight material or functional categories are tabled below. The specialists' reports are presented in the following section of this report and form the basis of the following overview.

Table 6.1 Overview of the artefact assemblage.

Material	Specialist	MIC	MIC (%)	Fragment	Fragment (%)	NISP
Building Materials	Jane Rooke	95	2.6%	151	2.7%	N/A
Ceramic	Madi Rodwell	472	12.7%	1,072	19.2%	N/A
Faunal	Lian Ramage	N/A	N/A	N/A	N/A	1,206
Glass	Madi Rodwell	486	13.1%	561	10.1%	N/A
Metal	Matt Byron & Ben Warton	1,764	47.6%	2628	47.1%	N/A
Miscellaneous	Amelia O'Donnell, Jane Rooke & Grace Kane	874	23.6%	1,143	20.5%	N/A
Organic	Sarah Rollason	18	0.5%	24	0.4%	N/A
Shell	Jason Giang	N/A	N/A	N/A	N/A	1,312
Total		3,709	100%	5,579	100%	2,518

The following analysis discusses the artefacts recovered from PS4 and is structured using the latest buildings on site prior to demolition; a terrace row of three shops with residences above, constructed in c.1882 (Houses 135, 133 and 131).

6.4 Artefact analysis

The results of analysis of each category of artefacts collected from the site is discussed below. At the time of demolition, the terrace row of three shops with residences above, constructed in c.1882 (houses 135, 133 and 131) was still extant. The terrace building was constructed with substantial sandstone footings, which provided the boundaries between each excavation area in accordance with the address. Each house was divided into rooms: room 1 of each house addressing Bathurst Street with the room numbers running sequentially from north to south in each house. An overview plan of the houses identifying each room is shown in Figure 5.1.

6.5 Building material analysis

The artefacts discussed in this section comprise building materials used to construct, finish and service the residential and commercial structures of the PS4 site. This includes bricks, mortar, render, tiles, and posts. This report will discuss the 95 minimum item count (MIC) and 151 fragments (Table 6.3) in relation to the three structures, House 131, House 133, and House 135.

6.5.1 Brick

Bricks are generally categorised first by production technology and secondarily by the type of frog used. For urban areas of NSW, bricks produced before 1890 are likely to be hand-made sandstock and after 1890 machine-made, either using the dry-pressed or extrusion methods. This date is not fixed, and examples exist of earlier machine made and later stock made bricks, especially in rural areas where sandstock bricks were still produced into the later twentieth century (Gemmell 1986:15).

The introduction of frogged bricks occurs in Britain towards the end of the seventeenth century (Varman 1993:18) and they were in common use by the mid-nineteenth century (Tomlinson 1854:188). In New South Wales early bricks (i.e., 1788-c.1820) were always unfrogged. The introduction of frogs begins with the broad or convict arrow (c.1817) indicating governmental ownership. The brick industry expanded by the 1850s with multiple private companies engaged in production, most of whom marked their bricks using a variety of different shaped frogs including diamonds, rectangles, and hearts. Examples exist of more complex and unique frog shapes being used towards the end of the nineteenth century. The frogs on machine made bricks are more standardised and usually entail an inverted-hipped shape, occasionally with the name of the brickmaker impressed within the frog.

6.5.2 Tile

The use of tiles for finishing aspects of properties was revived in the early nineteenth century. A dry press method of manufacturing tiles was invented in the 1840s and allowed mass production of tiles that saw a boom in the later nineteenth century and established the technology that is still commonplace today.

6.5.3 Slate

Slate is a natural occurring fine-grained metamorphic rock that can be easily split into flat sheets. It is most commonly used for roofing, but it can also be utilised as an early damp coursing at the base of brick or sandstone walls, and for flagging, steps and mantlepieces.

It is unclear exactly when the first slate roofs appear in Australia, but it has been suggested that John Piper introduced slate in 1829. By the 1830s a regular (although likely small) supply of roofing slate was imported into Sydney (Lewis, 2009 Section 3.07). The different colour of slate indicates the different areas they were quarried (Table 6.2) (2001, Heritage Victoria). In 1841 150,000 roof slates were exported from Willunga to Port Adelaide, Melbourne, and Sydney (Piddock 2007:7). By the 1880s the slate quality had improved and was still used, described as mid grey (Lewis 2009 3.07).

Table 6.2 Summary of slate colours from UK slate quarries

Country	Quarries	Colour and appearance
Wales	Caernarvonshire Quarries: Penrhyn, Bangor, Bethesda, Dinorwic, Llamberis	Purplish blue
	Merionethshire Quarries: Oakley,Bettws-y-Coed, Blaenau-Festiniog	Bluer than Caernarvonshire slates Also produce a grey slate
England	The Old Quarries: Delabole (Cornwall)	Grey-blue generally
	Westmoreland (Lake District)	A variety of green colours depending on proportions of iron oxide and magnesia. Generally thicker and coarser than Welsh slate

6.5.4 Assemblage overview

The total of 95 MIC and 151 fragments of building materials were excavated from PS4 (Table 6.3). The architectural function has, by far, the largest number of artefacts (87 MIC, 90%), with the other categories, including household, service and household/industry, having less than seven items in each. These will be discussed by house below. Within the architectural function the highest number of artefacts are structural, 28 MIC, which accounts for 29.6% of the artefacts. Within this function, bricks, with and without mortar, are the most common artefact found.

Table 6.3 Total number and percentage of artefacts by function and shape.

General function	Specific function	Artefact type	MIC	MIC (%)	Fragment	Fragment (%)
Architectural	Finish	Cornice	1	1.1	1	0.7
		Render	10	10.7	16	10.6
		Render & set	2	2.1	8	5.3
		Tile	10	10.5	14	9.3
	Flooring	Concrete	1	1.1	1	0.7
		Paver	1	1.1	1	0.7
		Surround, fireplace	1	1.1	1	0.7
	Non-Structural	Mortar	3	3.2	5	3.3
		Moulding	1	1.1	5	3.3
		Tile	1	1.1	1	0.7
	Roofing	Tile	23	24.2	38	25.2
	Structural	Brick	14	14.7	16	10.6
		Brick and mortar	1	1.1	0	0.0
		Brick, tile, mortar	1	1.1	0	0.0
		Mortar	8	8.4	14	9.3
		Post	1	1.1	1	0.7
		Tile	2	2.1	9	6.0
		Unidentified	1	1.1	1	0.7
	Unidentified	Concrete	2	2.1	2	1.3
		Lid	1	1.1	1	0.7
		Mortar	1	1.1	1	0.7
		Tile	1	1.1	1	0.7
		Unidentified	1	1.1	2	1.3

General function	Specific function	Artefact type	MIC	MIC (%)	Fragment	Fragment (%)
Service	Drainage	Pipe	7	7.4	12	7.9
Total			**95**	**100%**	**151**	**100%**

6.5.5 House 131

House 131 has a total of 33 MIC with 47 fragments (Table 6.4). Four sandstock bricks were found, three partial and one whole. The whole brick ([1474]/#1977) was excavated from one of a series of post holes associated with the foundations of an extension of Louisa Terrace, constructed between 1831-1865 (Figure 6.1). The small size of the brick, with no frog evident, and possibly with mud mortar evident, can be dated from c.1788-c.1850. The brick seems well made, although inclusions can be seen demonstrating pour mixing suggests it may have been made at the later stage of the date range when brickmaking skills, using Australian clays, had improved.

Table 6.4 Total number of Architectural building materials from House 131.

Specific function	Artefact type	MIC	MIC (%)	Fragment	Fragment (%)
Finish	Render	5	15.2	10	21.3
	Render & Set	2	6.1	8	17.0
	Tile	8	24.2	11	23.4
Flooring	Surround, fireplace	1	3.0	1	2.1
Roofing	Tile	8	24.2	9	19.1
Structural	Brick	4	12.1	4	8.5
	Brick, tile, mortar	1	3.0	0	0.0
	Mortar	1	3.0	1	2.1
Unidentified	Concrete	2	6.1	2	4.3
	Mortar	1	3.0	1	2.1
Total		**33**	**100%**	**47**	**100%**

Figure 6.1 Sandstock brick from Louisa Terrace ([1474]/#1977). Note the large inclusions and uneven edges. 100mm scale.

A total of 17 MIC (21 fragments) of tiles were excavated from House 131, with a mix of slate roofing tiles, flooring tiles and wall tiles (Table 6.5). The ten fragments of slate roofing tiles from House 131 consisted mostly of purple slate (6 MIC), imported from quarries in Wales (NSW Heritage Office 2004). One tile fragment was imported from the Lake District in England indicated by its green colour. A grey fragment found was likely imported interstate from South Australia when, by August

1840, two quarries were in operation in the region and the slate was described as appearing "nearly as good as English slates" (Adelaide Chronicle and South Australian Literary Record, 1840: 3).

The ten fragments of clay tiles came from Rooms 2, 3, 5-6, and the Back Passage, and are all made using the dust pressed method. These were used to finish various structures or to protect or decorate walls and floors. Nine of the tiles are glazed plain yellow, probably from the bathroom and/or the kitchen, only one tile is different, a green glazed tile with raised bars on the back with the manufacturer mark and country '[ ]D/ENGLAND' in relief.

Table 6.5 Sum of tiles from House 131.

Specific function	Artefact type	Material subclass	Date from	Date to	MIC	Fragment
Finish	Tile	Clay	c.1880	-	8	10
		Marble	-	-	1	1
Roofing		Slate	c.1840	-	8	10
Total					**17**	**21**

Many of the 18 plaster samples/fragments found had a two or three coat plaster, a technique of applying the plaster in three steps and allowing each coat to dry before applying the next. The first 'scratch' coat was the coarsest and was directly applied to stone, brick or lath walls and ceilings. It was then scratched to allow the second or 'float' coat to adhere. The third 'set' coat, which includes the mouldings, was the finest and left a smooth finish for any subsequent painting (Stocks 2008;30). The colours of the render found in House 131, a cream/yellow colour with some salmon colour, seem to fit with the décor based on the yellow glazed wall tiles found.

6.5.6 House 133

A total of 42 MIC (75 fragments) of building materials were excavated (Table 6.6). The structural function has the biggest variant of artefacts including mortar, tiles, a wooden post and four partial bricks, including two quite large sandstock bricks and two dry pressed bricks. The first dry pressed brick machine works in Sydney was founded in St Peters in 1878 (Ringer 2008: 55).

Table 6.6 Total number and percentage of building materials from House 133.

General function	Specific function	Artefact type	MIC	MIC (%)	Fragment	Fragment (%)
Architectural	Finish	Cornice	1	2.4	1	1.3
		Render	2	4.8	3	4.0
	Flooring	Concrete	1	2.4	1	1.3
	Non-Structural	Mortar	3	7.1	5	6.7
		Moulding	1	2.4	5	6.7
		Tile	3	7.1	4	5.3
	Roofing	Tile	8	19.0	14	18.7
	Structural	Brick	4	9.5	4	5.3
		Mortar	6	14.3	12	16.0
		Post	1	2.4	1	1.3
		Tile	2	4.8	9	12.0
		Unidentified	1	2.4	1	1.3
	Unidentified	Lid	1	2.4	1	1.3
		Tile	1	2.4	1	1.3
		Unidentified	1	2.4	2	2.7
Service	Drainage	Pipe	6	14.3	11	14.7
Total			**42**	**100%**	**75**	**100%**

Roofing tiles represent the highest percentage (19%) in House 133 with slate being the majority of the tiles (Table 6.7). The purple colour of the slate found suggests it was imported from Wales c.1840.

Table 6.7 Total number of tiles from House 133.

Specific function	Material subclass	Start date	End date	MIC	Fragment
Non-structural	Clay	-	-	2	2
	Earthenware	-	-	1	2
Roofing	Slate	c.1840	-	12	25
Total				15	29

Only two artefacts, a small plaster cornice ([1102]/#1974) and a small piece of moulded plaster in Room 1 ([1347]/#1950) originally painted a blue/green colour with light yellow painted over it, reveal any information on the style of the house.

6.5.7 House 135

House 135 has the least quantity of building material with a total of 20 MIC (29 fragments) (Table 6.8). The highest percentage of artefacts is roofing tiles (35%) with 30% of bricks the next largest type. Only one brick was whole ([1214]/#1975), a sandstock brick, excavated from a rectangular brick dump, with clear strike marks visible and is very similar to an early brick in House 131 (1474/#1977). The brick dump is possibly associated with either an earlier structure, identified in Knapp's c.1826 plan or Louisa Terrace c.1831. The small size of the brick, with no frog evident, and possibly with mud mortar evident, can be dated from c.1788-c.1850.

Table 6.8 Total number and percentage of building materials from House 135.

General function	Specific function	Artefact type	MIC	MIC (%)	Fragment	Fragment (%)
Architectural	Finish	Render	3	5	3	10.7
	Flooring	Paver	1	5	1	3
	Roofing	Tile	7	35	14	52
	Structural	Brick	6	30	8	28
		Brick and mortar	1	5	0	0
		Mortar	1	5	1	3
Service	Drainage	Pipe	1	5	1	3
Total			**20**	**100%**	**29**	**100%**

There were seven MIC slate tiles found in House 135, with a mix of colours and manufacturing countries including purple from Wales (2 MIC), blue from Wales (2), green/grey from England (1) and grey probably imported from South Australia (2).

6.5.8 Discussion

The building materials catalogued from PS4 give a general overview of the types of housing constructed in Sydney in the later nineteenth century. They show that brick was a primary material for construction and that both shell and lime were used as cement for bonding bricks and finishing walls. Most bricks were sandstock, two small unfrogged sandstock bricks are evidence for the earlier structures in the study area, Louisa Terrace and the structure shown on the Knapp's plan (Figure 2.6). The quantity of slate and the fastening holes evident on some of them suggests that this material was likely utilised for roofing and mostly imported from the UK with a small quantity imported interstate from South Australia.

6.6 Ceramic artefact analysis

A total of 1072 ceramic sherds were recovered for post-excavation analysis from 61 contexts from the excavations at the PS4 site, representing a minimum item count (MIC) of 472 (Table 6.9). The highest density of ceramic artefacts was found in House 133 containing 305 MIC (64.62%), followed by House 131 containing 115 MIC (24.36%) and House 135 contained the lowest number of items with 52 MIC (11.02%). These numbers correspond with the number and intactness of the underfloor deposits uncovered during excavation: House 133 contained two intact underfloor deposits, House 131 contained two disturbed underfloor deposits and House 135 contained one remnant underfloor deposit.

The majority of items can be attributed to food use, relating specifically to tableware, teaware and serving which totalled 389 MIC (82.42%) (Table 6.10, Figure 6.2). Household use was the next largest functional group represented with 31 MIC, the majority of which were ornamental (21 MIC). There was six MIC related to beverage use, all of which were ginger beer bottles and only one MIC related to clerical use, a small stoneware inkwell.

Table 6.9 Distribution of the ceramic assemblage across PS4.

House	MIC	MIC (%)	Fragments	Fragments (%)
131	115	24.36	246	22.95
133	305	64.62	715	66.70
135	52	11.02	111	10.35
Total	**472**	**100%**	**1,072**	**100%**

Table 6.10 Functions identified in the overall assemblage across PS4.

General function	Specific function	MIC	MIC (%)	Fragments	Fragments (%)
Beverage	Ginger beer	6	1.27	19	1.77
Beverage total		6	1.27	19	1.77
Clerical	Writing	1	0.21	1	0.09
Clerical total		1	0.21	1	0.09
Food	Container	1	0.21	1	0.09
	Serving	33	6.99	80	7.46
	Tableware	30	6.36	125	11.66
	Tableware/teaware	28	5.93	40	3.73
	Tbl/tea/serv	132	27.97	322	30.04
	Tea	163	34.53	318	29.66
	Unidentified	2	0.42	2	0.19
Food total		389	82.42	888	82.84
Household	Furniture/fitting	1	0.21	3	0.28
	Ornamental	21	4.45	38	3.54
	Other	1	0.21	5	0.47
	Storage	1	0.21	1	0.09
	Tableware	3	0.64	10	0.93
	Unidentified	4	0.85	4	0.37
Household total		31	6.57	61	5.69
Personal	Grooming	1	0.21	1	0.09
	Hygiene	3	0.64	30	2.80
Personal total		4	0.85	31	2.89
Personal/household	Hygiene	1	0.21	5	0.47
Personal/household total		1	0.21%	5	0.47
Pharmaceutical	Generic	1	0.21	1	0.09
Pharmaceutical total		1	0.21	1	0.09
Unidentified	Unidentified	26	5.51	30	2.80
	Garden	1	0.21	1	0.09

General function	Specific function	MIC	MIC (%)	Fragments	Fragments (%)
	Ornamental	1	0.21	1	0.09
	Serving	1	0.21	1	0.09
	Tableware	2	0.42	4	0.37
	Unidentified	7	1.48	7	0.65
Unidentified total		38	8.05	44	4.10
Yard/outdoor	Garden	1	0.21	22	2.05
Yard/outdoor total		1	0.21	22	2.05
Total		**472**	**100%**	**1,072**	**100%**

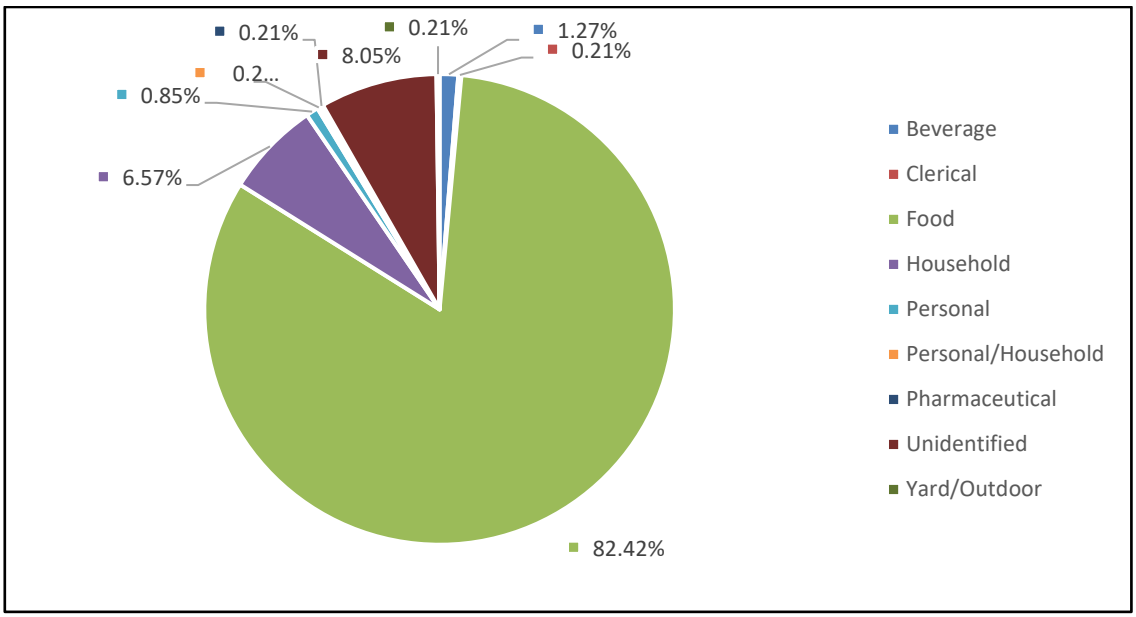

Figure 6.2 Functions identified in the overall assemblage across PS4.

There were 34 MIC which had identifiable makers marks, most of these items were imported from England with a few items manufactured in Scotland and Germany (Figure 6.3, Table 6.11). There was only one item which was identified as being manufactured in Australia – a ginger beer bottle produced by William Starkey between 1846 and 1956 ([1272]/#377). While the majority of items in the collection were unmarked, those with marks indicate a high level of imported ceramic wares. The assemblage can be dated to the late nineteenth century to the mid twentieth century.

There was also 13 MIC which had partial markers marks which could not be identified; however, each item was marked ‘England’ which indicates a manufacture date post-1891. Two additional items had a garter-type mark, a printed mark in the image of a garter, which indicated the manufacturer ‘Pearson/s’; however, additional research could not provide a date range.

Figure 6.3 Sample of makers marks on various vessels (L-R). Top row: A.J. Wilkinson (Ltd.) #958, Johnson Bros (Ltd.) #538 #962. Bottom row: W.H. Grindley & Co. #959, Henry Alcock & Co. (Ltd.) #948, Bishop & Stonier #1128. Scale 100mm.

A range of decorative types were observed within the assemblage with transfer print (TP) (115 MIC) being the most common, followed by gilt (110 MIC), painted (57 MIC), moulded (64 MIC) and banded (36 MIC) (Figure 6.4-Figure 6.6). In total, 403 MIC had some form of decoration identified. There were 22 identified transfer print patterns, represented by 53 MIC, a pattern could not be identified for 62 MIC (Table 6.12). Willow was the most represented transfer print pattern with 16 MIC, this was followed by Pattern #25 (7 MIC), a brown floral border pattern. The remaining patterns were represented by less than 5 MIC each.

Figure 6.4 Sample of decorative types found in House 131 (L-R). Top row: Sprigged plate [1415]/#446, hand-painted polychrome ornament [1283]/#389, purple spongeware and painted platter [1410]/#418. Bottom row: mocha fragments [1344]/#414, polychrome hand-painted gilt plate [1320]/#406, Chinese hand-painted ornamental container [1383]/#1284, hand-painted gilt plate [1320/#406]. Scale 100mm.

Figure 6.5 Sample of decorative types found in House 135 (L-R). Top row: banded fine earthenware plate [1164]/#1248, scalloped blue transfer print [1049]/#1225, sprigged bowl [1480]/#1229. Bottom row: sponged container [1219]/#1245, Chinese painted container [1067]/#1231, purple sponged container [1153]/#1213, purple sponged container [1153]/#1214. Scale 100mm.

Figure 6.6 Sample of transfer print types from House 135 (L-R). Top row: purple TP 'Greek Key' bowl [1164/#1248, blue TP tureen [1049]/#1226, pearlware blue 'Stag' TP bowl [1172]/#1237. Middle row: black TP bowl [1153]/#1221, green TP bowl [1102]/#1232, black Fibre TP container [1153]/#1210. Bottom row: blue Willow TP plate [1219]/#1239-1240, [1006]/#1206, blue TP plate [1153]/#1220, blue Rhine TP plate, black Rhine TP plate [1219]/#1241. Scale 100mm.

Table 6.11 Ceramic artefacts by manufacturers, their country of origin and date of manufacture.

Manufacturer options	Artefact origin	Start date	End date	MIC	MIC (%)	Fragments	Fragments (%)
A. J. Wilkinson (Ltd.)	England	c.1896	-	1	2.13	1	0.69
Alfred Meakin	England	1914	1976	1	2.13	1	0.69
Bishop & Stonier	England	1899	1936	3	6.38	4	2.76
Davenport	England	c.1793	1887	1	2.13	2	1.38
Henry Alcock & Co. (Ltd.)	England	1891	1910	3	6.38	5	3.45
Johnson Bros (Ltd.)	England	1883	1913	3	6.38	10	6.90
		1891	1913	1	2.13	2	1.38
		1900+	-	3	6.38	13	8.97
Josiah Spode	England	1805	1833	2	4.26	7	4.83
Port Dundas Pottery Co. Ltd	Scotland	1850s	1932	1	2.13	1	0.69
Powell & Bishop	England	1876	1878	1	2.13	1	0.69
Ridgeways	England	c.1905	1920	1	2.13	3	2.07
W. H. Grindley & Co	England	1891	1925	8	17.02	19	13.10
		c.1891	1925	1	2.13	2	1.38
Wessel	Germany	1900	1910	1	2.13	11	7.59
		c.1828	1910	1	2.13	1	0.69
William Adams & Sons	England	1829	1861	1	2.13	1	0.69
William Starkey	Australia	1846	1956	1	2.13	14	9.66
Unknown	England	1891+	-	13	27.66	43	29.66
Total				47	100	145	100

Table 6.12 Patterns of Transfer Print identified within the ceramic assemblage.

Pattern	MIC	MIC (%)	Fragments	Fragments (%)
Albion	3	0.63	3	0.81
Beacon	1	0.21	1	0.27

Pattern	MIC	MIC (%)	Fragments	Fragments (%)
Cable	2	0.42	3	0.81
Canova	1	0.21	4	1.08
Deer Pattern	1	0.21	3	0.81
Delft	1	0.21	3	0.81
Fibre	1	0.21	1	0.27
Neapolitan	2	0.42	10	2.70
Palestine	1	0.21	1	0.27
Paris	1	0.21	10	2.70
Pattern #24	1	0.21	10	2.70
Pattern #25	7	1.48	56	15.09
Pattern #27	1	0.21	24	6.47
Pattern #29	2	0.42	11	2.96
Pattern #30	4	0.84	26	7.01
Pattern #31	2	0.42	8	2.16
Pattern #36	1	0.21	24	6.47
Pattern #9	1	0.21	1	0.27
Roman Key	1	0.21	6	1.62
Tulip Spray	1	0.21	10	2.70
Unidentified	64	55.17	125	33.69
Wild Rose	2	0.42	2	0.54
Willow	16	3.38	29	7.82
Total	**115**	**100%**	**371**	**100%**

6.6.1 House 131

House 131 had 115 MIC (246 fragments) found in 32 contexts. Rooms 5-7 had the most artefacts with 46 MIC, followed by Room 4 (35 MIC) and Room 3 (32 MIC). Room 2 only contained two MIC and Room 1 did not contain any ceramic artefacts.

The key contexts containing ceramic artefacts within House 131 are as follows:

- Context 1415/1416 – cut and fill of posthole associated with c.1848 shed.
- Context 1413 – backfill of c.1826 cesspit [1330].
- Context 1388 – fill of [1397], associated with Louisa Terrace.
- Context 1272 – underfloor in Room 3.
- Context 1268/1284 – disturbed underfloor in Room 4.

Room 1, 2

Room 1 did not contain any ceramic artefacts. Room 2 only contained two artefacts, one in fill [1381] associated with the cut for chimney pad [1279] and the other in a sandy grey fill [1227], found under the bedding sand for the concrete slab across Rooms 1 and 2. The first item was a partial blue transfer print plate with Canova pattern manufactured in England ([1381]/#415). This pattern was likely produced by either Thomas Mayer or Goodwins and Harris in the 1830s. The other item from Room 2 was a partial undecorated chamber pot ([1227]/#353) (Figure 6.7). Due to the limited number of ceramic artefacts collected from the rooms, no definitive conclusions can be drawn from the assemblage.

Figure 6.7 Canova blue TP plate manufactured in England c.1830s [1381]/#415.

Room 3

Room 3 contained 32 MIC, of which 13 MIC were located in the underfloor deposit [1272]. There were two items found within Context [1415], a posthole associated with the c.1848 shed. One MIC was an undecorated FEW teacup ([1415]/#420) and the other was an unidentifiable household item which was hand painted with fingerprints visible on the interior and exterior ([1415]/#422). Another fragment was found within the context; however, it conjoined with item [1283]/#389 located in Room 4 and as such its item count was not counted in Room 3. The fragment was an ornamental lid, likely Chinese or Japanese porcelain with a thick light green glaze and painting over glaze ([1415]/#421). No items found within the posthole could provide a deposition date.

Context [1272] was assigned to the underfloor located in House 131, Room 3. The context contained 13 MIC of ceramics, of which, eight MIC were porcelain, three MIC were FEW and two MIC of salt-glazed stoneware. The functional analysis classified all items into two groups with one unidentified item: beverage (2 MIC) and food (10 MIC). Both beverage items were stoneware ginger beer bottles (#377; #382). Of the food related items, nine MIC were identified as serving ware and one identified as teaware. No items found within this context were whole. One partial ginger beer bottle ([1272]/#415) was identified as being produced by Sydney producer William Starkey (1846-1956). There were only two items which were undecorated within the context and there were three decorative types identified. Painted wares were the most represented decoration with five MIC, gilded and transfer print both had three MIC. The minimum deposition date of the underfloor deposit is 1846 due to the presence of the ginger beer bottle produced by Starkey.

Context [1344], a dark brown mixed fill, contained seven MIC including an unidentified item decorated with Mocha ([1344]/#414), a decorative technique used since c.1790. A blue transfer print, pearlware plate produced by Davenport (c.1793-1887) was the only item to have an

identified maker's mark. Two transfer print patterns were identified within the context, one 'Willow' plate ([1344]/#408) and one unidentified item decorated with 'Albion' ([1344]/#409), both of which were produced over an extensive period from c.1830. Although information from the context is limited, the minimum deposition date is c.1830 due to the presence of blue transfer print.

Overall, the ceramic artefacts analysed from room 3 represent a domestic assemblage with 62.50% of the assemblage related to the food functional group. While the minimum depositional date of Context [1272] is c.1830, it is likely the depositional period of the context occurred over an extended period of time from the late nineteenth century into the twentieth century due to the nature of ceramic use.

Room 4

Context [1268] was the highly disturbed underfloor deposit found in House 131, Room 4. Due to the disturbance of the context, it was excavated as one fill rather than using the grid and spit system used for other underfloor deposits. The 14 MIC collected from this context represent a typical domestic assemblage associated with food and beverage, its serving and consumption. The items collected from Context [1268] include plates (10 MIC), cups (3 MIC) and one bowl.

The majority of the items in this context were porcelain, with two bone China cups and five FEW plates. The decorative types in this context were painted, gilt, moulded and transfer print. There were four fragments of blue transfer print which were assigned 'Pattern 36' which conjoined fragments in Contexts [1212], [1283], [1284] and [1286] and featured a distinctive bamboo sheet pattern; however, a maker was not identified (Figure 6.8). The presence of blue transfer print would indicate the minimum depositional date c.1830s; however, since transfer print was used extensively over an extended period of time, it cannot be used to definitively date a deposit.

Figure 6.8 Blue TP 'Bamboo' plate [1212]/#346, [1283]/#390, [1286]/#402, [1268]/#363, [1284]/#398.

Room 5/7

Context [1413] was assigned to the fill of the cesspit located in the rear of House 131, the context contained 12 MIC with two items being unidentified. The functional analysis classified all identified items within the context as food, of these items seven were identified as serving and another three items were teaware. There were no manufacturer marks identified from the items recovered from the cess pit. All items within this context were decorated, the most common decorative type was transfer print (5 MIC), of which three items were 'Willow' and the other two were unidentified. There were two items each of moulded, painted and sprigged wares and there was one item of flow blue print.

Context [1388] the fill of cut [1397], associated with Louisa Terrace, only contained four MIC, all of which were related table/teaware. One MIC ([1388]/#440) was a teacup manufactured by Josiah Spode between 1805-1833, another one MIC ([1388]/#416) decorated with 'Willow' transfer print produced from c.1830+. The presence of these items is consistent with the building of Louisa Terrace in 1831.

6.6.2 House 133

House 133 has a total of 305 MIC (715 fragments) found in 17 contexts. Room 5 contained the highest concentration of ceramics with 231 MIC, followed by Room 4 (62 MIC). The other room contained significantly less ceramics with Room 6 containing six MIC, followed by Room 3 (3 MIC), Room 2 (2 MIC) and Room 1 (1 MIC).

The key contexts containing ceramic artefacts within House 131 are as follows:

- Context [1107] – underfloor in Room 4
- Context [1102] – underfloor in Room 5.

Due to the significant number of conjoins between the two underfloor deposits, these will be discussed together.

Room 4, 5

Contexts [1102] and [1107] were assigned to the underfloor deposits located within Room 5 and Room 4 of House 133 respectively. Both contexts contained a high number of conjoins between them. Of the 205 MIC found within Context [1102], the majority of items were associated with food service with 79 items assigned to tableware and 107 items assigned to teaware. The remaining items within this context were associated with household and personal use with four items unidentified. Similarly, Context [1107] contained 52 items, of these, 42 items were associated with food service with 22 items linked to tableware and 20 items linked to teaware. The remaining items within this context were associated with household and pharmaceutical use with three items unidentified. The distribution of artefacts indicates these were the central, or communal, living areas of the house with Room 5 likely being the kitchen and storage area due to the high item and fragment counts and the hearth located within the room. The exact relationship of the two rooms in regards to conjoins between contexts is unclear.

The ceramics found within Contexts [1102] and [1107] demonstrate a wide variety of decoration techniques including transfer print, painted, slip-decorated, gilded and moulded (Figure 6.9-Figure

6.12). There were only 25 items in Context [1102] and six items in Context [1107] which were undecorated. The prominent decorative type found within both contexts were gilded teaware with 58 items in Context [1102] and 13 items in Context [1107], followed by painted wares with 42 items in Context [1102] and ten items in Context [1107]. Of the ceramics collected from both contexts, just over ten were decorated with transfer print. Of the commonly found transfer print patterns, only one item with the 'Willow' pattern was found within Context [1102]. Of the transfer print identified within the two contexts, three were assigned an internal Pattern Number based on their identifiable features. 'Pattern 25' related to a brown floral border, four items were found of this pattern, three were brown transfer print, the other was a green transfer print. Two of the items had a partial makers mark which indicated the manufacturer 'Pearson/s'; however, no information could be found for this. 'Pattern 30' was another floral border with a wattle like motif and 'Pattern 29' was a brown transfer print of varied cartouches containing birds, florals and deer.

There were five manufacturers with makers marks identified on transfer print items between the two contexts. Two patterns produced by Johnson Bros (Ltd.) were collected, both had makers marks dating from 1900+ – 'Paris' (1 MIC) and 'Neapolitan' (2 MIC). One green transfer print plate was identified by its pattern/maker's mark as 'Tulip Spray', produced by Imperial Pottery, England. The use of England denotes a date after 1891. No information could be found on Imperial Pottery, the name could indicate it was produced by Johnson Bros in their Imperial Pottery.

One item of Ridgways' 'Delft' pattern was located within underfloor [1102], the makers mark dates this item to c.1905 – 1920. Two transfer print saucers were identified as being produced between 1900 and 1910 by Wessel – a German company. This saucer also had conjoins contained in context [1046] (the cut for the later wall foundations) and Context [1164] (the underfloor in House 135, Room 4).

One item was a brown transfer print of 'Hampden' produced by the Old Hall Earthenware Co. and was designed by Christopher Dresser. Thirteen fragments of the pattern were located within Context [1102], with another 11 fragments collected from Context [1107], all fragments found of this pattern conjoin. This pattern was likely produced between 1884 and 1886; however, only a partial mark was found on the item and Old Hall Earthenware Co. was proceeded by Old Hall Porcelain Co. who continued to use the same mark and operated until 1902.

Based primarily on the makers marks found within the underfloor deposits, it is likely the deposition of these artefacts occurred post 1900, while some items were likely produced in the late nineteenth century, the nature of the items function allows for extended usage.

Figure 6.9 Redware teapot [1102}/#533. Scale 100mm.

Figure 6.10 Moulded figurine lid [1102]/#1014. Scale 100mm.

Figure 6.11 Gilt and teal painted set (L-R) Top row: [1102]/#771; [1102]/#794, #767. Bottom row: [1102]/#744, #799; [1102]/# 748, #769, #586, #587; [1102]/#585, #772. Scale 100mm.

Figure 6.12 Egg cups (L-R) [1107]/#888, #648. Scale 100mm.

6.6.3 House 135

House 135 has a total of 53 MIC (111 fragments) found in 12 contexts. Room 3 contained the highest concentration of ceramics with 25 items, followed closely by Room 4 (21 MIC). The other rooms contained significantly less ceramics with Room 1 containing two items and Room 2 containing four items. The key context containing ceramic artefacts within House 135 was [1164], an underfloor in Room 4.

Room 4

Context [1164] an underfloor located in House 135, Room 4, the 14 items were only found in Grid B1. Porcelain and FEW made up the majority of the ceramics found in this context with 7 items of each. A small portion of redware and refined earthenware fragments were also located within this context which conjoined to fragments found in Contexts [1102] and [1107]. The artefact types within this context reflect the domestic use of the site with items associated with food and service and consumption. Tableware and teaware represented the highest functional percentage in the context, 64.29%, there were four items with an unidentified function and one household item which was likely a fragment of a candlestick holder.

Three English manufacturers were identified in this context, the marks were found on two undecorated plates and one undecorated item of unidentified tableware. The plate (#1255) produced by Henry Alcock & Co. (Ltd.) was dated to 1891-1910. The plate (#1259) produced by W.H. Grindley & Co. indicates a date range of 1891-1925. The unidentified item of tableware (#1258) was produced by Bishop & Stonier between 1899-1936. Two fragments of the Wessel saucers found in Contexts [1102] and [1107] were located in this context.

A range of decorative types typical from assemblages dating from the mid nineteenth century onwards were represented in Context [1164], gilded (3 MIC), moulded (2 MIC), painted (2 MIC) and banded (2 MIC). The fragments of transfer-printed wares found in this context conjoin to items found in Contexts [1102] and [1107], there were four fragments of ‘Pattern 30’ and one fragment of ‘Pattern 25’. Six fragments conjoined to two small pouring jugs which has speckled brown rims found in Context [1102].

6.6.4 Discussion

Ceramic artefact data can provide an insight into the daily lives of people living and working on a site. The ceramic assemblage analysed from PS4 demonstrates a typical domestic assemblage with the majority of items related to the food functional group (389 MIC, 82.42%). Similarly, 209 Castlereagh Street and 14-28 Ultimo Road excavations revealed a large proportion of food preparation and serving wares (Australian Museum Consulting 2015a:9; 2015b:5). The artefacts, especially those analysed from identified key contexts from the site, demonstrate an extended period of use from the mid-nineteenth century through to the twentieth century (Table 6.13).

Across all three houses, ceramic artefacts related to the preparation and service of food dominated the assemblage. While the most common forms across all three houses were plates and saucers, there were a few forms which were only found within individual houses. Three egg cups and two teapots were only found in House 133, all found within underfloor [1107] of Room 4. The only tureen ([2049]/#1225) was found within Room 4 House 135. All six items of beverage related bottles were identified as ginger beer and, while there were not many, at least one was found in each of the three houses.

Children's wares are typically decorative, featuring a moulded border (particularly with the alphabet) and often transfer printed central design. While small in size, they are distinguished from toy tea and dinner sets by their suitability for use as tableware (Riley 1991:7; Samford & Miller 2012; Batkin 1996:6). There was little evidence of children found within the ceramic assemblage with only one moulded alphabet rim ([1102]/#1142) found in underfloor [1102] of Room 5.

Only one clerical related item was identified within the assemblage, found in Room 5/7 of House 131. The inkwell could relate to either personal use within the home or commercial use as the three houses combined business and residences.

Little evidence remains of the earliest known structures on the site; however, this is likely due to disturbance from later construction and demolition.

Table 6.13 Date ranges of identified key contexts from the ceramic assemblage.

Context	Identified date range
[1415] (H131 Rm3)	No date
[1413] (H131 Rm5/7)	c.1830-1930
[1388] (H131 Rm5/7)	c.1830
[1272] (H131 Rm3)	1846-1956
[1268/1284] (H131 Rm4)	c.1830-1930
[1107] (H133 Rm4)	1900+
[1102] (H133 Rm5)	1900+
[1164] (H135 Rm 4)	1899-1936

6.7 Glass artefact analysis

The following discusses the glass artefacts excavated from PS4. The artefacts comprise mostly bottles and containers and the analysis includes data on function, origin, technomorphology and reuse when applicable. Glass artefacts can give an insight into the daily lives of the people who lived and worked in the houses at 131-135 Bathurst Street, Sydney.

A total of 561 fragments were retained for post-excavation analysis, representing 486 MIC. Glass artefacts were recovered from 41 contexts across the site; however, few of them contained a significant number of items or fragments. House 133 contained the majority of artefacts with 50% of the assemblage (Table 6.14). The glass artefacts were concentrated in Rooms 3 and 4 of House 131 (91 MIC and 47 MIC respectively), Rooms 4 and 5 of House 133 (75 MIC and 160 MIC respectively) and Room 2 of House 135 (55 MIC).

While many glass artefacts are unmarked and could be attributed to several functions, advancements in manufacturing technologies during the mid to late-nineteenth century provide chronological data for many of the diagnostic features of glass vessels (Table 6.15). The standardisation of bottle shapes in the early nineteenth century aid in attributing a function to many bottles; however, there are still some forms which cannot be clearly defined into a single function. Date ranges can be further established by manufacturer's marks, usually located on or near the base, and product embossments, labels or trademarks (Jones et al., Jones 1986, Boow 1991, Baugher-Perlin 1982).

Table 6.14 Distribution of the glass assemblage across PS4.

House	MIC	MIC (%)	Fragments	Fragments (%)
131	166	34.16	193	34.4
133	243	50.00	267	47.59
135	77	15.84	101	18.00
Total	**486**	**100**	**561**	**100%**

Table 6.15 Technomorphology of glass vessels.

Technomorphology	Date range
Finishing tool	1820-1920s
Non-machine made	Pre 1893
Post bottom mould	1820s+
Cup bottom mould	1850+
3-part mould	1820s-1920s
Turn-paste mould	1880-1900
Semi-automatic machine-made	1893-1926
Machine-made – fully automatic	1920+
Crown cap finish	1895+
External threaded finish	1885+
Internal ledge finish (stopper finish)	1850-1910
Codd bottle	1875-1930

Functionality, or original intended use, of an item was identified by comparing the shape, size and manufacturing technique of each item/fragment, where possible, an item/fragment was also assigned a specific function which could either be identified by its shape, decoration or embossed markings. There were six primary functions identified in the glass assemblage: architectural, beverage, food, household, personal and pharmaceutical (Table 6.16). Although gin/schnapps was widely marketed as a patent medicine during the nineteenth century and was advertised as having a variety of medicinal properties, bottles identified as such have been classified as beverage within this assemblage (Hughes, 1992).

Beverage was the most prominently identified function with 208 MIC, of which, alcohol represented the highest specific function (73 MIC), followed by champagne/wine (61 MIC), aerated water (29 MIC), and gin/Schnapps (14 MIC) (Table 6.16 Figure 6.13). There were 24 MIC which could not be attributed to a specific function. Household was the second most identified function with 67 MIC, of which, tableware was the most identified specific function (51 MIC) with nine ornamental items. There were five MIC which could not be attributed a specific function. Bottles assigned a food function mostly related to food storage with 63 MIC, of which, 30 MIC were identified condiments/sauce bottles and five MIC pickle/chutney bottles, there were 24 MIC which were not assigned a specific function. Pharmaceuticals contained 36 MIC; however, the majority of them could not be assigned a specified function (26 MIC) with the remaining either being generic or patent. Of the 11 MIC allocated an architectural function, ten MIC were identified as window glass. The personal function was the smallest identified function with only four MIC.

Table 6.16 Functions identified in the overall assemblage across PS4.

General Function	Specific Function	MIC	MIC (%)	Fragments	Fragments (%)
Architectural	Non Structural	1	0.21	1	0.18
	Window	10	2.06	14	2.50
Architectural Total		11	2.26	15	2.67
Beverage	Aerated Water	29	5.97	46	8.20
	Alcohol	73	15.02	77	13.73
	Beer	4	0.82	9	1.60

General Function	Specific Function	MIC	MIC (%)	Fragments	Fragments (%)
	Champagne	35	7.20	40	7.13
	Gin/schnapps	14	2.88	22	3.92
	Milk	1	0.21	1	0.18
	Other	2	0.41	3	0.53
	Unidentified	24	4.94	25	4.46
	Wine	26	5.35	30	5.35
Beverage Total		208	42.80	253	45.10
Food	Condiments/Sauce	30	6.17	34	6.06
	Container	2	0.41	2	0.36
	Oil/Vinegar	1	0.21	1	0.18
	Other	1	0.21	1	0.18
	Pickle/Chutney	5	1.03	9	1.60
	Unidentified	24	4.94	27	4.81
Food Total		63	12.96	74	13.19
Household	Maintenance	1	0.21	1	0.18
	Ornamental	9	1.85	10	1.78
	Other	1	0.21	1	0.18
	Tableware	51	10.49	61	10.87
	Unidentified	5	1.03	5	0.89
Household Total		67	13.79	78	13.90
Personal	Other	1	0.21	1	0.18
	Unidentified	3	0.62	3	0.53
Personal Total		4	0.82	4	0.71
Pharmaceutical	Generic	1	0.21	1	0.18
	Medicine	9	1.85	9	1.60
	Unidentified	26	5.35	27	4.81
Pharmaceutical Total		36	7.41	37	6.60
Unidentified	Unidentified	1	0.21	1	0.18
	Container	2	0.41	2	0.36
	Tableware	1	0.21	1	0.18
	Unidentified	93	19.14	96	17.11
Unidentified Total		97	19.96	100	17.83
Total		**486**	**100%**	**561**	**100%**

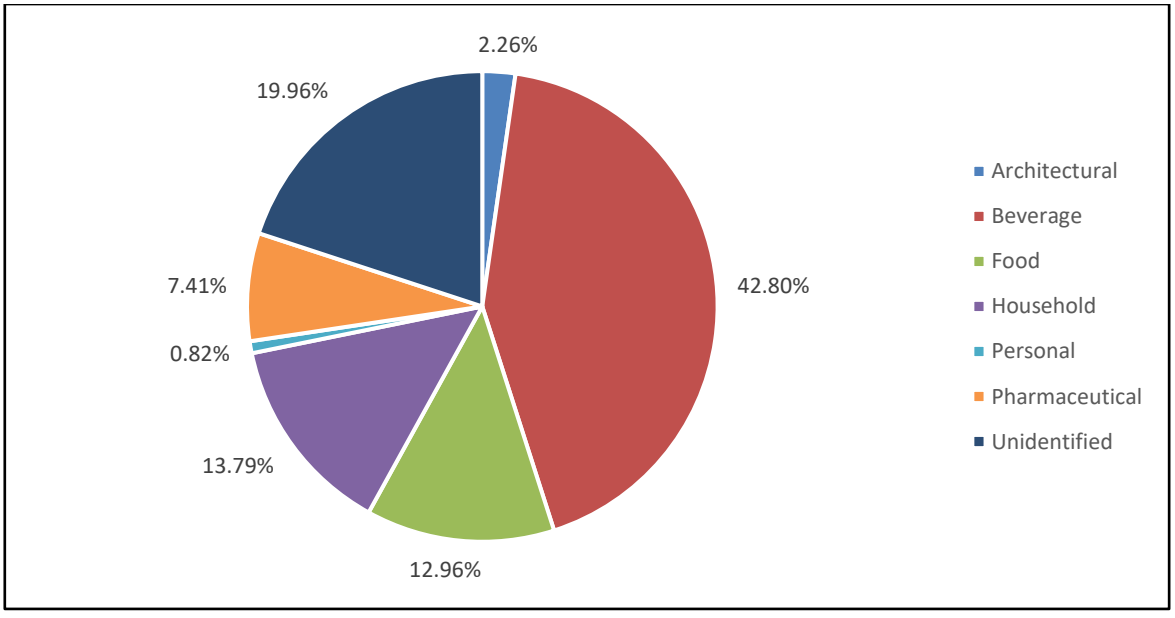

Figure 6.13 Functions identified in the overall assemblage across PS4.

6.7.1 House 131

House 131 had 166 MIC (193 fragments) found in 22 contexts. Room 3 had the most artefacts with 91 MIC, followed by Room 4 (47 MIC) and Room 5-7 (24 MIC). Room 2 only contained four items and Room 1 and the back passage did not contain any glass artefacts.

The key contexts containing glass artefacts within House 131 are as follows:

- Context [1415]/ [1416] – cut and fill of posthole associated with c.1848 shed.
- Context [1413] – fill of c.1826 cesspit [1330].
- Context [1272] – underfloor in Room 3.
- Context [1268]/ [1284] – disturbed underfloor in Room 4.

Room 1, 2 and the back passage

There were no glass artefacts retained for analysis from either Room 1 or the back passage. Room 2 contained four MIC, of which only two had identifiable marks. Context [1227], a sandy grey fill, contained one condiments/sauce bottle with an embossed 'AGM' logo on the base indicating the Australian Glass Manufacturing Co. with a manufacturing period of c.1930-c.1980. The other identified item was uncovered from sandy yellow-brown demolition fill [1282] was a Udolpho Wolfe's Schnapps bottle (c.1840s-c.1920).

Room 3

Room 3 contained 91 MIC, of which 75 were uncovered from underfloor deposit [1272]. The remaining artefacts were uncovered from seven contexts within the room, none of which were key contexts. Only three of the items were embossed with manufacturers marks: an aerated water bottle ([1220]/#283) produced by Charles Oertel (1891-1929), an aerated water bottle ([1320]/#287) produced by Hume & Pegrum (1875-1896) and an unidentified bottle ([1311]/#1729) produced by Resch's Ltd (1906-1929), all of which were manufactured in Australia. Only two other items had distinguishing mould seams which provide broad date ranges for manufacture: machine-made, produced c.1910+ ([1410]/#284; [1223]/#683).

Context [1415] is a posthole associated with the c.1848 shed, there were two glass items found within the context. One ([1415]/#271), an aerated water bottle and the other ([1415]/#272), a food related bottle; however, neither item had enough identifiable features to ascertain a manufacturing period.

The function of the majority of items from [1272] were unidentified (33 MIC) followed by beverage (19 MIC) and food (17 MIC) (Table 6.17, Figure 6.14). The remaining items were identified as either household (2 MIC) or pharmaceutical (4 MIC). One of the unidentified items did have an embossed base mark: Melbourne Glass Bottle Company manufactured between 1888-1900. Of the 19 beverage related items, nine were identified as aerated water. There were two ([1272]/#15; [1272]/#16) which were identified as the Niagra Codd bottle variant which indicates a minimum date of manufacture of 1888, the partial embossed markings on one item ([1272]/#5) also identified the Australian product maker Hume & Pegrum (1875-1896). The embossed markings "[C]OFFEE & C[HICORY]" (c.1860-c.1940) on one item ([1272]/#20) identify the item as being a coffee & chicory essence bottle, a product used as a coffee substitute, particularly during The Great Depression (Museums Victoria Collections, 2022). There were not enough identifiable features on

the fragment to indicate a specific manufacturer to narrow the manufacturing period of the bottle. The alcohol (3 MIC) and champagne/wine (2 MIC) bottles were not fully automatic machine-made, indicating a manufacturing date pre-1920.

Only five of the food related items were attributed to a specific functional level: condiments/sauce (3 MIC) and pickle/chutney (2 MIC), all of these items were non-machine-made bottles indicating a period of manufacture pre-1920. None of the pharmaceutical bottles (4 MIC) were identified to a specific functional level; however, one item ([1272]/#1763) was identified as having a cup-bottom base with a partial 'Sydney' mark indicating a manufacturing date post-1850. Neither of the two household items could be attributed to a specific form, nor could the features identified provide a manufacturing period. Although only a few items were able to provide a manufacturing period for the bottles, it is likely the deposition of these artefacts occurred over an extended period of time from the late nineteenth century to c.1920s. The nature of the items function allows for an extended period of use, as such, the deposition of the artefacts is likely to occur some time after the items manufacture.

Table 6.17 Summary of specific function of glass artefacts from [1272].

General function	Specific function	MIC	MIC (%)	Fragments	Fragments (%)
Beverage	Aerated water	9	12.00	10	12.05
	Alcohol	3	4.00	3	3.61
	Champagne	2	2.67	2	2.41
	Unidentified	5	6.66	5	4.82
Beverage total		*19*	*25.33*	*20*	*24.10*
Food	Condiments/sauce	3	4.00	6	7.23%
	Pickle/chutney	2	2.67	3	3.61%
	Unidentified	12	16.00	14	16.87%
Food total		*17*	*22.67*	*23*	27.71
Household	Ornamental	1	1.33	1	1.20%
	Tableware	1	1.33	1	1.20%
Household total		*2*	*2.67*	*2*	2.41
Pharmaceutical	Unidentified	4	5.33	4	4.82%
Unidentified	Unidentified	33	44.00	4	4.82%
Total		**75**	**100%**	**83**	**100%**

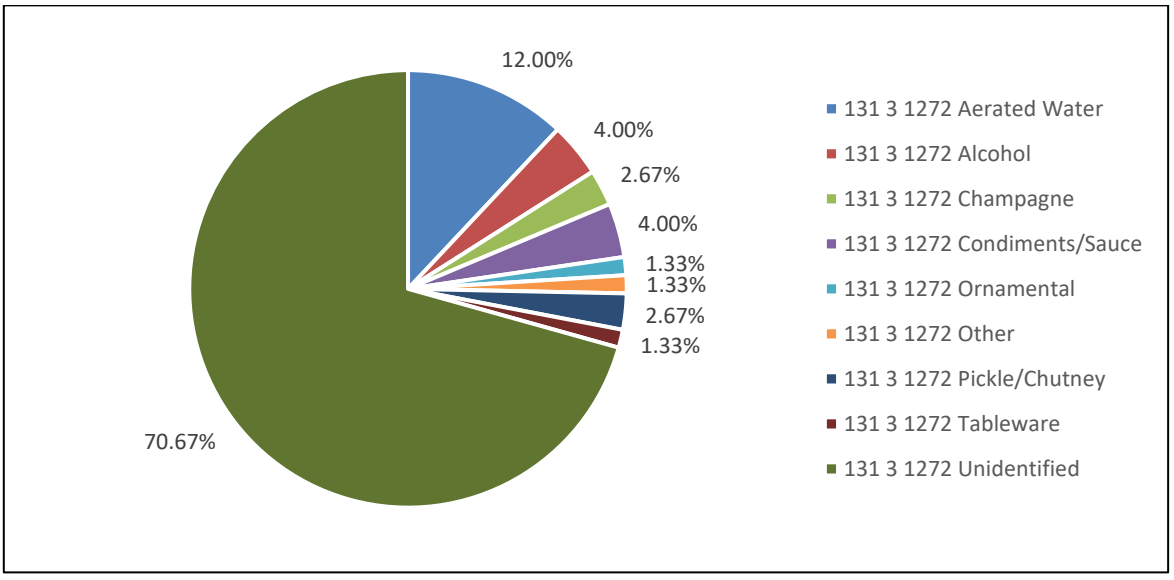

Figure 6.14 Summary of specific function of glass artefacts from [1272].

Room 4

Room 4 contained 47 items, 29 items from [1264] and one item from [1284], both associated with the disturbed underfloor. The remaining items were uncovered from four other contexts within the room, none of which were identified as key contexts. Only two of the items were embossed with manufacturers marks: an aerated water bottle ([1212]/#67) produced by Charles Oertel (1891-1929), and an aerated water bottle ([1283]/#273) produced by Hume & Pegrum (1875-1896), both manufactured in Australia. There were five other items with identifiable features that were able to provide a broad date of manufacture: a Codd bottle ([1312/#68]) produced between 1875-1930, a dip moulded bottle ([1212]/#66) produced from c.1820s-1920, an unidentified two-part mould bottle ([1312]/#74), a club sauce bottle stopper ([1286]/#680) produced from 1915, and architectural window glass ([1212]/#678) produced from 1938.

The function of the majority of the items from [1268] were unidentified (20 MIC), followed by beverage (7 MIC) and food and pharmaceutical both had one item (Table 6.18, Figure 6.16). The only glass item from [1284] was an aerated water bottle produced by Hume & Pegrum (1875-1896) ([1284]/#270). Of the seven beverage items, three were identified as Codd bottles, two ([1268]/#50; [1268]/#51]) were produced by Charles Oertel (1891-1929) and one bottle ([1268]/#38) was identified as the Dobson's variant produced from 1885 (Figure 6.15). One unidentified beverage bottle ([1268]/#41) was manufactured in Sydney; however, there were no other distinguishing features. The food related item was a fruit jar produced by Carrington Shaw (1880-1916) ([1268]/#52) and the pharmaceutical bottle was not attributed a specific function. Although information from the deposit is limited, the manufacturing period of the bottles/jar identified indicate the underfloor accumulated over an extended period of time with a minimum deposition date of 1891.

Figure 6.15 Codd bottle finish, Dobson's variant dating 1885+ [1268]/#38. Scale 100mm.

Table 6.18 Summary of specific function of glass artefacts from [1268] and [1284].

Context number	General function	Specific function	MIC	MIC (%)	Fragments	Fragments (%)
1268	Beverage	Aerated water	3	10.00	10	25.64
		Alcohol	2	6.67	2	5.13
		Unidentified	2	6.67	2	5.13
	Food	Other	1	3.33	1	2.56
	Pharmaceutical	Unidentified	1	3.33	1	2.56
	Unidentified	Unidentified	20	66.67	22	56.41
1284	Beverage	Aerated water	1	3.33	1	2.56
Total			**30**	**100%**	**39**	**100%**

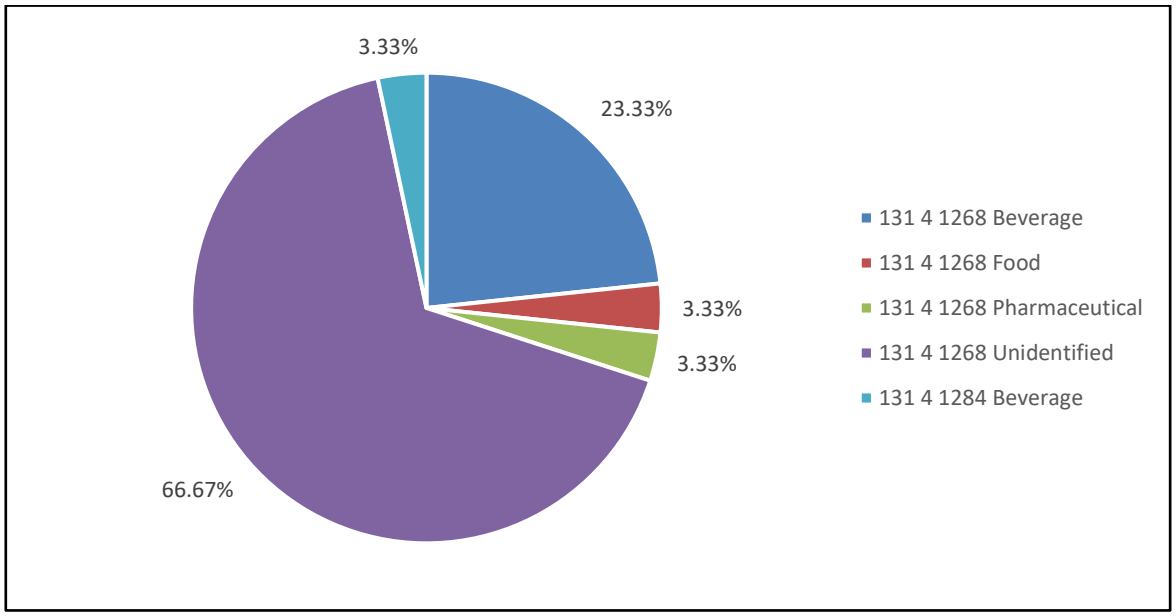

Figure 6.16 Summary of functions represented by glass artefacts from [1268] and [1284].

Room 5-7

Room 5-7 contained 24 items, with nine MIC uncovered from context [1413], the fill associated with c.1826 cesspit [1330]. The remaining items were uncovered from five contexts within the room, none of which were key contexts. Only four items from [1413] had identifiable features which provide a broad manufacturing date range: one item of drawn sheet glass ([1300]/#96) produced from 1920 onwards, one machine-made pharmaceutical phial ([1300]/#521), produced from c.1910 onwards, and two club sauce bottle stoppers ([1229]/#466; [1377]/#681) produced from 1915.

The function of the majority of the items from Context [1413] were household related (4 MIC), followed by food (3 MIC), pharmaceutical (1 MIC) and unidentified (1 MIC). Three of the household items were tableware with one wine glass ([1413]/#1770) and two glass/cup ([1413]/#1794; [1413]/#1795). The remaining household item was a press moulded bowl/dish ([1413]/#1796), the technology for pressed tableware glass was introduced in the 1820s (Boow, 1991). The three food related items were non-machine-made condiment/sauce and pickle/chutney bottles, indicating a manufacturing period pre-1920s. The pharmaceutical item ([1413]/#1788) was an unidentified phial produced by a cup-bottom two-piece mould (1850+). Due to the limited information gained from the glass artefacts from Context [1413], it is uncertain when the cesspit was filled in; however,

it would have occurred sometime between 1850 and pre-1920 due to the presence of the cup-bottom mould and no machine-made bottles.

6.7.2 House 133

House 133 had 243 MIC (267 fragments) found in 11 contexts. Room 5 had the most artefacts with 159 MIC, followed by Room 4 (76 MIC). Rooms 1 and 3 only contained one item each and Rooms 2 and 6 contained three items each.

The key contexts containing ceramic artefacts within House 131 are as follows:

- Context [1107] – underfloor in Room 4
- Context [1102] – underfloor in Room 5.

Room 1, 2, 3, 6

Room 1 only contained one glass item ([1235]/#1734), a turn-paste mould champagne/wine bottle produced between 1880-1900, this was found in the fill of a trench cut. Of the three items found in Room 2, only one item ([1202]/#1712) had an embossed 'AGM' logo on the base indicating a manufacturing period of c.1930-c.1980; however, this was located in rubble fill. The one item found in Room 3 was an unidentified beverage bottle ([1295]/#1716), found in the fill of a cut associated with a CEW service. Within Room 6, two of the items were found in fill [1142] associated with a CEW service, a pharmaceutical bottle ([1142]/#1690) manufactured by a two-part, post-bottom mould (1820s+) and an alcohol bottle ([1142]/#1689) with a sand pontil scar, indicating it was manufactured in the nineteenth century. None of the glass artefacts retained from Rooms 1, 2, 3 and 6 were from secure occupational deposits, as such, few conclusions can be drawn from the glass assemblage from these rooms.

Room 4

Context [1107] was assigned to the underfloor located in House 133, Room 4, it contained 75 MIC, of which 45% were beverage related bottes (Table 6.19, Figure 6.20). A further 13 MIC were household related and 11 MIC related to food (Figure 6.18, Figure 6.19). There were six pharmaceutical items, two personal items and one fragment of window glass, the remaining eight items were unidentified. There was 19 MIC identified as wine/champagne bottles and three aerated water bottles, seven items were categorised as condiments/sauce bottles and ten tableware items. There were no whole items identified from this context. There were two product makers identified within the context, represented by four items: Dalm & Oertel (1882-1889) (1 MIC), producing aerated water in Sydney, and Udolpho Wolfe who produced and imported schnaps from Holland (1840s-1940) (4 MIC); no bottle manufacturers were. identified within the context.

Over half the glass artefacts collected from underfloor [1107] did not have an identified manufacturing method. Of the methods identified, seven MIC were machine-made, seven MIC were generally identified as mould blown, five MIC were 2-part moulds, and four MIC were turn-paste moulded. There were two items identified as Codd' type aerated water bottles. The majority of artefacts collected were undecorated, of those that were decorated, four MIC were panelled and ribbed, fluted or a combination of the two. Another three items were embossed and two items were painted, including an ornamental green milk glass lid painted with a bird and flowers (Figure 6.17).

The combination of the presence of machine-made bottles and the few identified product makers would suggest a minimum deposition date of 1920s for the underfloor deposit [1107]; however, due to the nature of underfloor deposits, the deposit could have built up over an extended period of time from the late nineteenth century.

Figure 6.17 Ornamental lid hand painted with bird and flowers [1107]/#207, #1728. Scale 50mm.

Figure 6.18 Sample of bottle types and stoppers found in the underfloor of H.133 including champagne finishes and oil/vinegar bottles (L-R). LHS: [1102]/#151. Top row: [1102/#1705. Bottom row: [1102]/#1672, [1107]/#1183, [1102]/#200. RHS: [1107]/#1674. Scale 100mm.

Figure 6.19 Range of household bottles found in H.133 (L-R). Top row: [1107]/#1190, [1102]/#1733, [1102]/#1731, [1102]/#1188, [1102]/#1815. Bottom row: [1202]/#1712, [1102]/#1671, [1102]/#1732, [1102]/#1703. Scale 100mm.

Table 6.19 Summary of specific function of glass artefacts from [1107].

General function	Specific function	MIC	MIC (%)	Fragments	Fragments (%)
Architectural	Window	1	1.33	1	1.22
Architectural total		1	1.33	1	1.22
Beverage	Aerated water	3	4.00	10	12.20
	Alcohol	1	1.33	1	1.22
	Champagne	7	9.33	7	8.54
	Gin/schnapps	4	5.33	4	4.88
	Unidentified	7	9.33	7	8.54
	Wine	12	16.00	12	14.63
Beverage total		34	45.33	41	50.00
Food	Condiments/sauce	8	10.67	8	9.76
	Container	2	2.67	2	2.44
	Pickle/chutney	1	1.33	1	1.22
Food total		11	14.67	11	13.41
Household	Ornamental	1	1.33	1	1.22
	Other	1	1.33	1	1.22
	Tableware	10	13.33	10	12.20
	Unidentified	1	1.33	1	1.22
Household total		13	17.33	13	15.85
Personal	Unidentified	2	2.67	2	2.44
Personal total		2	2.67	2	2.44
Pharmaceutical	Unidentified	6	8.00	6	7.32
Pharmaceutical total		6	8.00	6	7.32
Unidentified	Container	2	2.67	2	2.44
	Unidentified	6	8.00	6	7.32
Unidentified total		8	10.67	8	9.76
Total		**75**	**100%**	**82**	**100%**

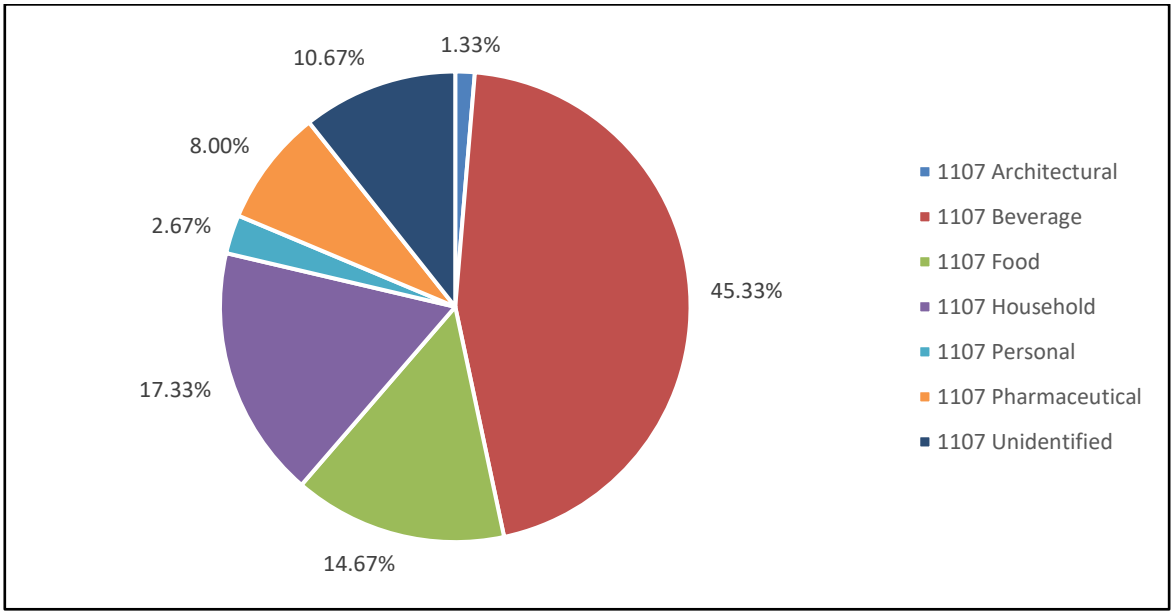

Figure 6.20 Summary of functions represented by glass artefacts from [1107].

Room 5

Context [1102] was assigned to the underfloor located in House 133, Room 5, it contained the highest density of glass artefacts with 157 MIC (Table 6.20, Figure 6.23). There were 16% of the items which could not be identified. Six whole items collected from the context, three bottles and three stoppers. The majority of items were identified as beverage, followed by household. The most identified specific function was tableware (34 MIC), followed by alcohol (26 MIC) with an additional 14 MIC having a champagne shape, a further 13 MIC were identified as condiments/sauce bottles. There were three product makers identified within the context. Three items were identified as Udolpho Wolfe Schnapps and the last Powell – a long time English producer beginning 1837+. A stopper was embossed by product maker George Whybrow (1829-1899, England).

While the manufacturing method of almost 70% of glass collected from Context [1102] could not be identified, 46 MIC were identified. The most common technique was machine-made (1920+), represented by 20 MIC, followed by press-moulded (1820s+) (7 MIC). Turn-paste moulded (1880-1900) and 2-part moulded bottles (1820s+) were both represented by 5 MIC (Figure 6.21). Three items were identified as mould-blown but could not be more specifically categorised. A few decorative techniques were identified, the majority of which were either food containers or household items. There were two embossed pharmaceutical items and one unidentified ribbed item. Food related bottles which were decorated were typically condiments/sauce bottle and oil/vinegar bottles. There were 27 tableware items with decorative motifs, the most common of which were hobnails (six MIC) and stippled (seven MIC), there was one ‘sunburst’ item and two panelled items (Figure 6.22).

The presence of machine-made bottles within this context suggests a likely deposition date range between mid-1890s and early 1900s which is supported by the few product makers identified and is consistent with the date range identified within the ceramic assemblage.

Figure 6.21 Marshall's Giant Cement bottle its contents used to glue broken ceramics [1102]/#1721. Scale 50mm.

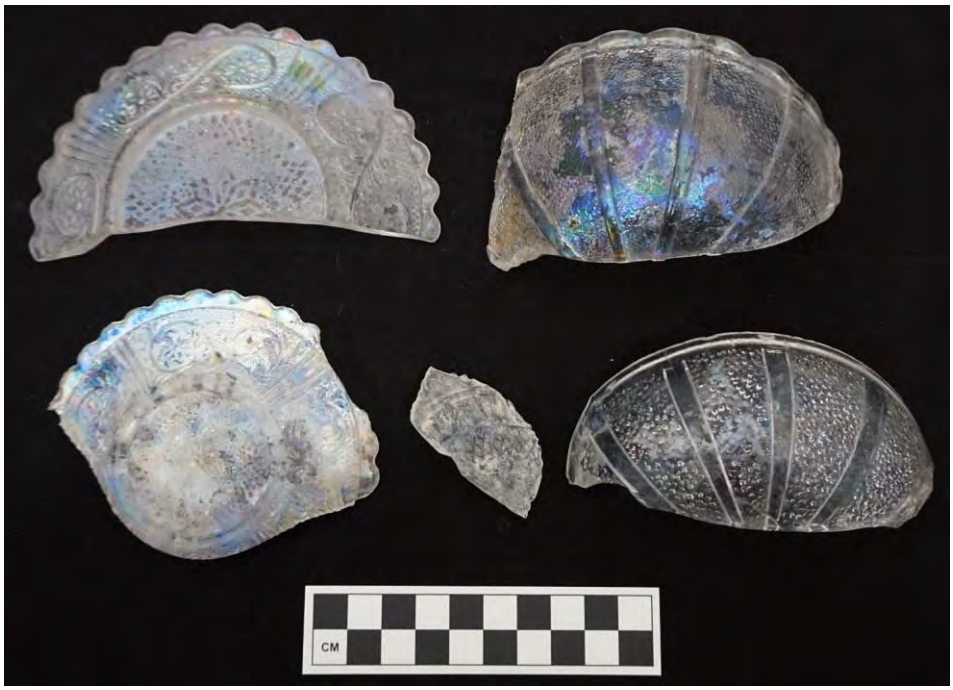

Figure 6.22 Tableware from underfloor [1102], Room 5 of H.133 (L-R). Top row (l-r):scalloped rim with floral swirls #1707, Scalloped rim on a bowl with stippled panels#1709. Bottom row: Scalloped rim on a saucer with floral design #181. Small fragment of bowl with diamond hobnails on heel and sun or starburst on base #227, Stippled triangular panels on a bowl #137. Scale 100mm.

Table 6.20 Summary of specific function of glass artefacts from [1102].

General Function	Specific Function	MIC	MIC (%)	Fragments	Fragments (%)
Architectural	Non Structural	1	0.64	1	0.58
	Window	1	0.64	5	2.91
Architectural Total		2	1.27	6	3.49
Beverage	Aerated Water	1	0.64	1	0.58
	Alcohol	26	16.56	26	15.12
	Champagne	14	8.92	14	8.14
	Gin/schnapps	4	2.55	4	2.33
	Unidentified	4	2.55	4	2.33
	Wine	5	3.18	5	2.91
Beverage Total		54	34.39	54	31.40
Food	Condiments/Sauce	13	8.28	13	7.56
	Oil/Vinegar	1	0.64	1	0.58
	Unidentified	7	4.46	8	4.65
Food Total		21	13.38	22	12.79
Household	Maintenance	1	0.64	1	0.58
	Ornamental	4	2.55	4	2.33
	Tableware	34	21.66	44	25.58
	Unidentified	2	1.27	2	1.16
Household Total		41	26.11	51	29.65
Personal	Other	1	0.64	1	0.58
Personal Total		1	0.64	1	0.58
Pharmaceutical	Medicine	3	1.91	3	1.74
	Unidentified	10	6.37	10	5.81
Pharmaceutical Total		13	8.28	13	7.56
Unidentified	Tableware	1	0.64	1	0.58
	Unidentified	24	15.29	24	13.95
Unidentified Total		25	15.92	25	14.53
Total		**157**	**100%**	**172**	**100%**

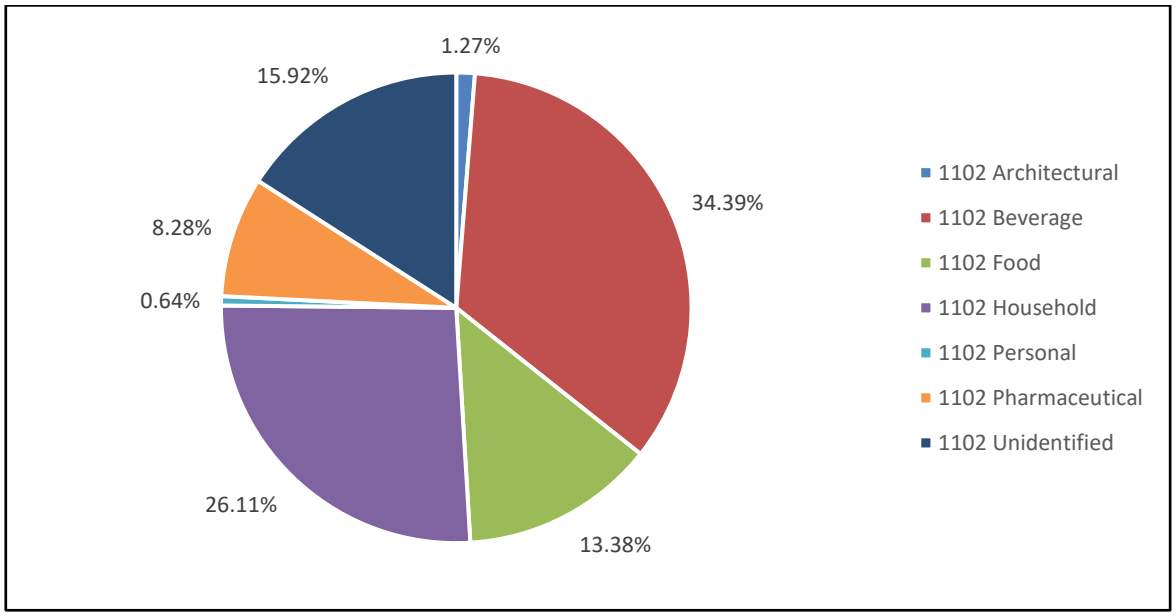

Figure 6.23 Summary of functions represented by glass artefacts from [1102].

6.7.3 House 135

House 135 had 77 MIC (101 fragments) found in 13 contexts. Room 2 had the most artefacts with 55 MIC, followed by Room 4 (11 MIC). Room 1 contained three items while Room 3 contained eight items.

The key contexts containing ceramic artefacts within House 131 are as follows:

- Context 1164 – underfloor in Room 4
- Context 1472 – bottle dump at the base of Room 2 cellar
- Context 1480 – fill for Room 2 cellar trench cut.

Room 1, 3

Room 1 only contained three MIC, all from rubble fill [1006]; the demolition deposit from the infilling of the cellar, identified during monitoring of the Bathurst Street piling trench and all identified as beverage bottles with one ([1006]/#1756) being identified as a gin/schnapps bottle (Figure 6.24). Room 3 contained eight MIC, four identified as beverage related. One black glass bottle with a conical push up ([1153]/#278) produced between 1860-1870. Another three MIC had distinguishing mould seams which provide broad date ranges for manufacture: one turn-paste mould bottle produced between 1880-1900 ([1076]/#1735), one dip moulded case gin bottle produced from c.1820s-1920 ([1134/#1754) and one two-part mould produced from c.1820s+ ([1153/#279). None of the glass artefacts from Room 3 came from secure occupation deposits or fills, as such, no definite conclusions can be made based on the glass assemblage. Context [1076] was the fill of the cut associated with CEW service pipe [1075] while contexts [1134] and [1153] were both demolition fills.

Figure 6.24 Bottle bases from [1006] (l-r): Gin/schnapps bottle base #1756, Unidentified alcohol bottle base#1758, Unidentified alcohol bottle base #1757. Scale 100mm.

Room 2

Room 2 contained 55 MIC (Table 6.21) with 36 MIC of those items being located in Context [1480], a fill associated with the trench cut of the cellar The majority of these artefacts were identified belonging to the beverage functional group, specifically alcohol related (34 MIC) with one MIC identified as an aerated water bottle and the other item unidentified. There were no makers identified within the context, however, all the bottles were non-machine made, suggesting the cellar had been constructed pre-1920.

The remaining artefacts were all located in Context [1472], the bottle dump. The 17 MIC identified in this context were all alcohol related. As with the fill [1480], there were no machine-made bottle identified within the context, confirming the dumping event to have occurred pre-1920.

Table 6.21 Summary of specific function of glass artefacts from House 135, Room 2.

General function	Specific function	MIC	MIC (%)	Fragments	Fragments (%)
Beverage	Aerated water	1	1.82	1	1.45
	Alcohol	30	54.55	33	47.83
	Beer	2	3.64	2	2.90
	Champagne	10	18.18	13	18.84
	Gin/schnapps	1	1.82	5	7.25
	Unidentified	1	1.82	1	1.45
	Wine	8	14.55	12	17.39
Beverage total		53	96.36	67	97.10
Personal	Unidentified	1	1.82	1	1.45
Personal total		1	1.82	1	1.45
Pharmaceutical	Unidentified	1	1.82	1	1.45
Pharmaceutical total		1	1.82	1	1.45
Total		**55**	**100%**	**69**	**100%**

Room 4

Room 4 contained 11 MIC (Table 6.22), of which the majority were beverage related (6 MIC), the remaining were identified as either architectural (3 MIC) or household (2 MIC). There was only four MIC identified in underfloor [1164], 2 MIC were beverage bottles, 1 MIC was architectural window glass and 1 MIC was a press-moulded tableware bowl (Figure 6.25). Of the two beverage items, one ([1164]/#1736) was a Reches' Ltd. beer bottle produced between 1906-1929 and the other a gin/schnapps bottle ([1164]/#1737) produced from at least the 1820s. While glass artefacts from underfloor [1164] is limited, the minimum deposition date of underfloor [1164] is 1906 due to the Reches' Ltd. bottle.

Figure 6.25 Pressed glass tableware [1165]/#1751. Scale: 100mm.

Table 6.22 Summary of specific function of glass artefacts from House 135, Room 4.

General function	Specific function	MIC	MIC (%)	Fragments (%)	Fragment (%)
Architectural	Window	3	27.27	3	15.79
Architectural total		3	27.27	3	15.79
Beverage	Alcohol	1	9.09	1	5.26
	Beer	1	9.09	6	31.58
	Gin/schnapps	2	18.18	4	21.05
	Milk	1	9.09	1	5.26
	Other	1	9.09	2	10.53
Beverage total		6	54.55	14	73.68
Household	Tableware	1	9.09	1	5.26
	Unidentified	1	9.09	1	5.26
Household total		2	18.18	2	10.53
Total		**11**	**100%**	**19**	**100%**

6.7.4 Discussion

The glass assemblage analysed from the PS4 site demonstrates a typical Sydney assemblage with the majority of items related to the beverage functional group (42.80%). Similarly, 14-28 Ultimo Road excavations revealed a large proportion of beverage related bottles comprising just under one third of the glass assemblage and excavations at 209 Castlereagh Street identified a large portion of the artefact assemblage to be associated with food and beverage (Australian Museum Consulting 2015a:35; 2015b:9). The artefacts, especially those analysed from identified key contexts from the site, demonstrate an extended period of use from the mid-nineteenth century through to the twentieth century (Table 6.23).

Across all three houses, the beverage functional group dominated the glass assemblage. However, the distribution of the form of the bottles changed between the houses. The majority of beverage bottles in House 131 were aerated water bottles produced pre-c.1920s. In Houses 133 and 135, alcohol related bottles formed the majority of the beverage functional group. The food functional group was only identified in Houses 131 and 133; however, all the artefacts identified related to the storage of food items, particularly condiments and preserves.

While only 35 MIC of the glass assemblage had an identified maker or manufacturer, the majority of these were produced in Australia (22 MIC) with 18 MIC found in House 131 and 4 MIC found in House 133. Another 8 MIC were produced in the Netherlands with seven MIC located in House 133 and one MIC located in House 131. The remainder of the marked bottles were identified as being produced in the United Kingdom (8 MIC) with one MIC found in House 131 and the remainder in House 133. There were no identified makers found in House 135.

Table 6.23 Date ranges of identified key contexts from the glass assemblage.

Context	Identified date range
[1415] (H131 Rm3)	No date
[1413] (H131 Rm5/7)	1850-1920s
[1272] (H131 Rm3)	1888-1920
[1268/1284] (H131 Rm4)	1891-c.1920s
[1107] (H133 Rm4)	1920+
[1102] (H133 Rm5)	1890-1920+
[1164] (H135 Rm 4)	1906-1929
[1472] (H135 Rm2)	Pre-1920s
[1480] (H135 Rm2)	Pre-1920s

6.7.5 Glass reuse

There is a history of bottle reuse in the archaeological record despite glass containers becoming mass produced towards the end of the nineteenth century (Busch, 1987; Carney, 1998). Australia's first successful glass works was established in 1866 when Sydney Glass Company opened, followed by Melbourne Glass Bottle Works (1868) and Australian Glass works (1878). Prior to this, empty bottles were valued items as they were imported (Boow, 1991). In some industries, bottles were an expensive commodity, in order to make a profit, bottle manufacturers would need to reuse bottles several times (Carney, 1998). It was common practice for companies to emboss phrases which included variations of 'This bottle is the property of…' to encourage the return of the bottle for reuse. A number of items were found with partial embossing which include three bottles produced by Hume & Pegrum (1875-1896) and one bottle produced by Resch's Ltd (1906-1929). This possibly suggests reuse still being practiced into the twentieth century even after the introduction of machine-made bottles.

Bottles were also reused in the domestic setting. Commercial jars and bottles would often be reused for homemade foods and beverages or used for storage (Carney, 1998). Only one bottle contained residue within the base not related to its original use, [1006]/#1758 was the base of an alcoholic beverage bottle; however, without residue analysis it is uncertain what the bottle was used for. It is likely other jars and bottles would have been used to store miscellaneous items such as buttons.

6.8 Metal artefact analysis

Metal is frequently found on archaeological sites, commonly consisting of cast and wrought iron, copper and its alloys (brass and bronze), lead, tin, and their alloys, and zinc. The condition of all archaeological artefacts is a result of the interaction between the materials and the surrounding environment, which can be protective or destructive. Most metals corrode and the deterioration, as a continuing process, can be affected by long periods in the ground and exposure to biological factors including salt and water. Effects of this exposure include the metal dissolving or layers of disfiguring crusts forming which obscure the details of the object and sometime the object itself. During excavation, increased exposure to oxygen and temperature will increase the corrosion rates (OE&H,2004).

The metal assemblage from PS4 contains a total of 1764 minimum item count (MIC) and 2628 fragments (Table 6.24). There is 1,318 MIC (74.4%) associated with architecture.

Table 6.24 Sum of metal artefacts by function.

General function	MIC	MIC (%)	Fragment	Fragment (%)
Architecture	1,318	74.7	1,727	65.72
Arms	2	0.1	0	0.00
Beverage	16	0.9	20	0.76
Clerical	1	0.1	1	0.04
Container	23	1.3	90	3.42
Food	7	0.4	13	0.49
Household	44	2.5	42	1.60
Household/industry	72	4.1	123	4.68
Personal	1	0.1	1	0.04
Recreation	1	0.1	1	0.04
Service	7	0.4	12	0.46
Transport	3	0.2	4	0.15
Unidentified	132	7.5	293	11.15
Work/trade	136	7.7	299	11.38
Yard/outside	1	0.1	2	0.08
Total	**1,764**	**100%**	**2,628**	**100%**

6.8.1 House 131

House 131 was on the west side of PS4, built in c.1882-3 in the location of the previous House 119's passageway and part of its footprint. J. Robins opened a grindery warehouse and, in 1887, it also incorporates a boot upper manufacturer.

A total of 184 MIC (229 fragments) were found across House 131 (Table 6.25) with the majority associated with the architectural function (60.9%), including nails, screws and washers, brackets and metal sheets for structural uses. There were 30 MIC unable to be given a function due to their corrosion, encrustation or fragmentary condition.

Table 6.25 Function and sum of metal artefacts from House 131.

General function	MIC	MIC (%)	Fragment	Fragment (%)
Architectural	112	60.9	132	57.64
Beverage	14	7.6	18	7.86
Container	1	0.5	1	0.44
Food	4	2.2	7	3.06
Household	8	4.3	8	3.49
Household/industry	5	2.7	5	2.18

General function	MIC	MIC (%)	Fragment	Fragment (%)
Service	3	1.6	3	1.31
Unidentified	31	16.8	47	20.52
Work/trade	5	2.7	6	2.62
Yard/yard	1	0.5	2	0.87
Total	**184**	**100%**	**229**	**100%**

House 131 had six rooms and the back passageway which contained metal artefacts. Rooms 3 and 4 were gridded and excavated as an underfloor deposit with the chart below showing these rooms had the highest number of artefacts. The majority (91 MIC) of these were in Room 4, followed by those Room 3 (58 MIC).

The artefacts in-between rooms 5-6 and 5-7 included architectural items such as nails, bolts and screws as well as service related objects for drainage, including a brass drain cover. A Fosters beer bottle cap was found in between Rooms 5 and 6, its manufacture dated from 1889 when Fosters was first sold (Fosters).

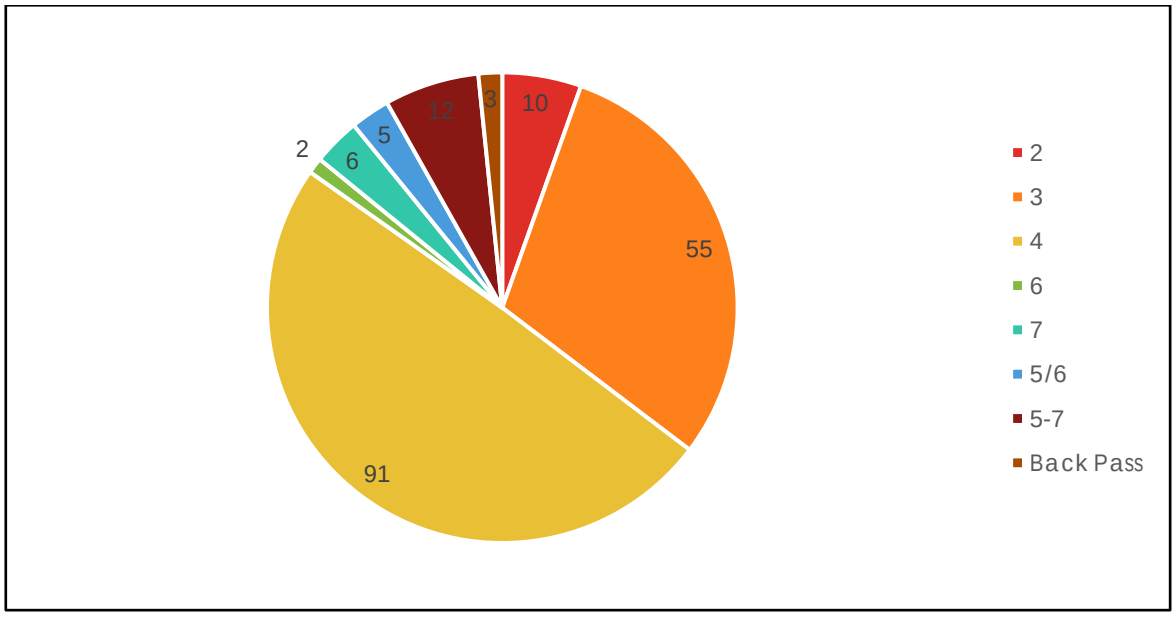

Figure 6.26 Pie chart with breakdown of metal artefacts by room in House 131.

6.8.2 House 133

House 133 was built over what was 121. It had six rooms with Mr. George Tall running an iron monger and later, c.1887, a locksmith.

Out of the three houses at PS4, House 133 had the greatest number of artefacts excavated (1417 MIC) (Table 6.26). Again, the architectural function had the highest quantity of metal artefacts attributed to it, with 76.1% across the house. The majority of these were wire drawn nails, manufactured from c.1853 to present (Varman,1993:183).

The household/industry function has 41 items related to door hardware including locks, keys, and escutcheons (Figure 6.27).

Table 6.26 Function, sum and percentage of metal artefacts from House 133.

General function	MIC	MIC (%)	Fragment	Fragment (%)
Architectural	1078	76.14	1445	65.62
Arms	2	0.14	0	0.00
Beverage	2	0.14	2	0.09
Clerical	1	0.07	1	0.05
Container	19	1.34	85	3.86
Food	3	0.21	6	0.27
Household	28	1.98	27	1.23
Household/industry	62	4.38	113	5.13
Personal	1	0.07	1	0.05
Recreation	1	0.07	1	0.05
Service	4	0.28	9	0.41
Transport	3	0.21	4	0.18
Unidentified	83	5.86	216	9.81
Work/trade	130	9.17	292	13.26
Total	**1417**	**100%**	**2202**	**100%**

Figure 6.27 Sample of lock paraphernalia. Top row (l-r); 1107/#422 key, 1102/#1372 escutcheons (2), 1102/#1123 escutcheon. Middle row lock mechanisms: 110/#341(1), 1102/#1372, 1102/#1097. Bottom row lock mechanisms: 1102/341(3), 1102#1372(5), 1102/#1097. Scale 100mm.

In all rooms, with the exception of Room 2, there were a high quantity of work/trade tools found (127 MIC), with 69 files (or part thereof) and 36 partial serrated edged saw blades.

There were also five saw medallions found, small circular discs often found on the wooden handle of a saw, advertising the manufacturer (Figure 6.28).The medallions were manufactured in America and the UK (Barley,2014:540) indicating the use of imported saws and that they were likely brought in for repair or for sharpening at the grindery in House 131 rather than used by the residents of the Houses.

The medallions all depict the manufacturers trademark. Robert Sorby & sons, from the UK, used a kangaroo to show their interest in the Australian market (Robert Sorby and Sons, ND). H. Disston & son/s manufactured their tools in Philadelphia, USA and used traditional symbolism of the power of America, including the keystone and the Eagle on their medallions. The changing styles allow the artefacts to be dated (Table 6.6).

Figure 6.28 Image of saw handle with H. Disston medallion (http://www.disstonianinstitute.com; 2019).

Table 6.27 Details of saw medallions from Pitt Street Station South site.

Room	Context	Brief description of trademark on the medallion.	Manufacturer	Country/City of Manufacturer	Date of manufacture
6	1020	'COPORATE MARK KANGAROO' around a standing kangaroo and inside reeded ring.	Sorby	UK	1798-present
5	1102	'Beardshaw & Son / Sheffield' around crowned English coat of arms.	Beardshaw & Son	UK/Sheffield	1895-1971
		'H. DISSTON & SON / PHILAD'A' around keystone and scales, raised rim.	H. Disston & Son	USA/Philadelphia	-C.1865
		'WARRENTED / SUPERIOR' around American Eagle with open wings, raised rim	-	USA	-
4	1107	Relief text '[H. DISSTON & SON / PHILAD'A] around keystone and scale, raised rim.	H.Disston & Son	USA/Philadelphia	-c.1865

Figure 6.29 Five saw medallions found at Pitt Street. Top row (l-r); 1107/#1336, 1102/#1104, 1102/#1343. Bottom row; 1102/#353, 1020/#620. Scale 100mm.

All six rooms in House 133 had metal artefacts, including the spaces in between rooms 3-4 and 3-6 (Figure 6.30) which include several lead strips, used in roofing, and a roofing nail. The clean-up context [1001] in these spaces had two unfired cartridges, both made in Canada from c.1977-c.1988. Room 5 recorded the greatest number of artefacts (1151 MIC) making up 79% of items in the house where in comparison Room 3 had only a fragment of wire that conjoins pieces found in Room 4 of House 135 ([1049]/#0457).

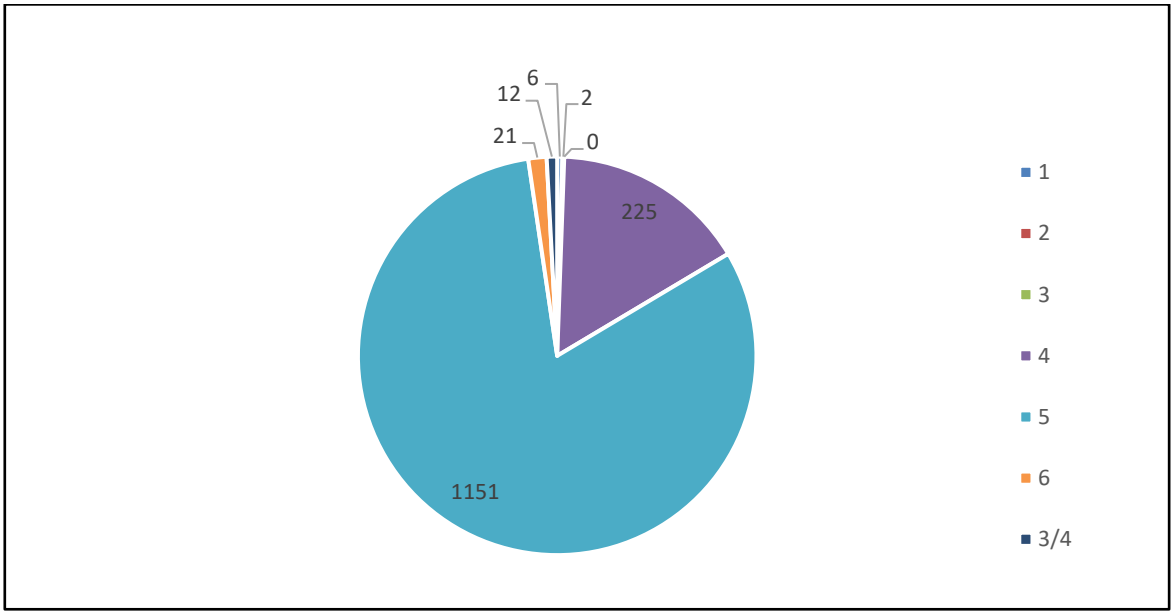

Figure 6.30 Pie chart with breakdown of metal artefacts by room in House 133.

6.8.3 House 135

House 135 was at the far eastern side of PS4. The business changed several times between the 1880s and the present, with businesses including pawn brokers and tobacconists.

House 135 has the smallest quantity of metal artefacts excavated (163 MIC) out of the three houses (Table 6.28). As with the other two houses, the architectural function is represented with the highest number of artefacts, consisting of 114 nails, of which 81 are wire drawn and manufactured from c.1853, 13 are cut nails with a manufacturing date from c.1805 and only one machine wrought nail, its manufacture date ranging from c.1840s-c.1870s. There are 19 nails/spikes that cannot be dated due to their high encrustation and corrosion.

Unlike House 133 there are only two work or trade items in House 135, an auger drill bit ([1049]/#453) and a heavily encrusted file ([1076]/#471).

Table 6.28 Function, sum and percentage of metal artefacts from House 133.

General function	MIC	MIC (%)	Fragment	Fragment (%)
Architectural	127	78	149	76
Container	3	2	4	2
Household	8	5	7	4
Household/industry	5	3	5	3
Unidentified	18	11	30	15
Work/trade	2	1	2	1
Total	163	100%	197	100%

There were three rooms with metal artefacts in House 135 (Figure 6.31). Room 4 has the greatest number (152 MIC) with 127 MIC architectural items. These include wire drawn nails dating from c.1853 and machine wrought nails dating from c1940s-c.1870s. There were also screws and washers. Room 2 had one artefact, an architectural, large iron spike. The 25 artefacts from Room 3 consisted of all architectural items including a mix of nails with manufacture dates ranging from c.1805 for the cut nails and c.1853 for the wire drawn nails.

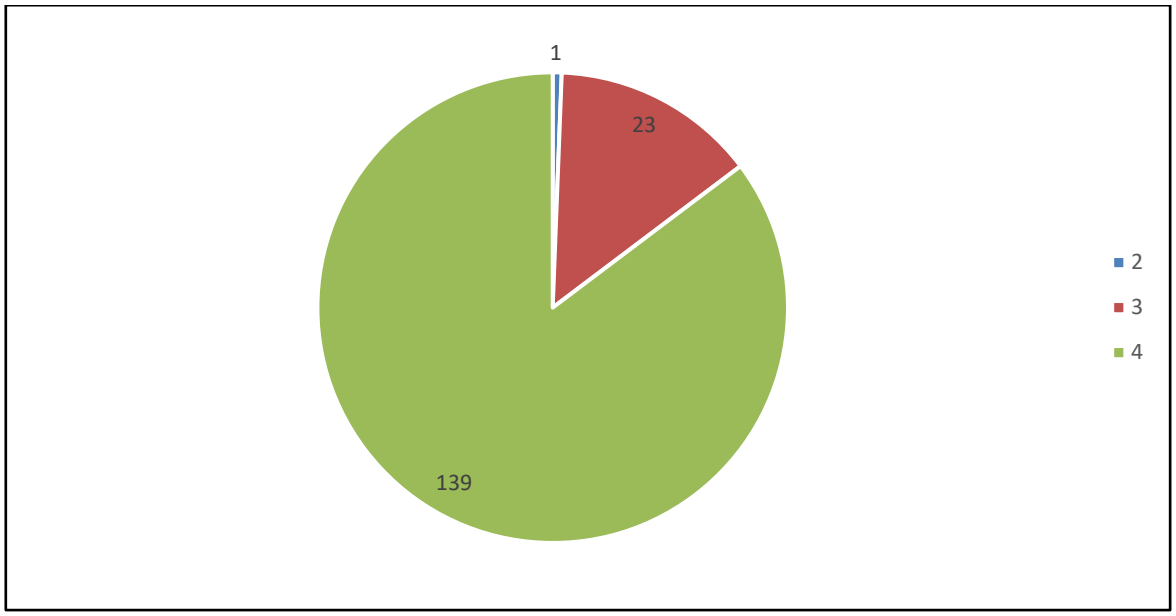

Figure 6.31 Breakdown of metal artefacts by room in House 135.

6.8.4 Discussion

The analysis of the 1764 MIC (2628 fragments) of metal items provides an overview of the activities in the buildings on Bathurst Street. Throughout PS4 most of the metal artefacts were made from iron and many were undiagnostic due to their high fabric decay or encrustation. Artefacts that could be identified were mostly architectural, fastening items including nails and screws, that can be used in domestic and industrial settings.

In c.1882, when the two buildings became three buildings, an ironmonger and locksmith (Mr. George Tall) occupied House 133, possibly explaining the large number (104) of lock related items.

There were also an unusually large number of files (153 fragments, 73 MIC) and saws (103 fragments, 34 MIC), especially blades, in PS4. This can possibly be explained by the presence of not only an ironmonger in House 133, but also a grindery, where tools and implements were sharpened, in House 131. Files were used to sharpen blades from tools including hacksaws and household knives and scissors. Evidence of the saw medallions, often placed in the wooden saw handle, indicate that tools were imported from the UK and America with no evidence of locally made tools.

6.9 Miscellaneous artefact analysis

The Miscellaneous artefacts from the houses within PS4 at 131-135 Bathurst Street give an insight into the daily lives of the people who lived and worked there. The 874 MIC (1143 fragments) of artefacts (Table 6.29) comprise the minutiae of everyday life; sewing tools, clothes fastenings, toys, coins, and objects of personal adornment and encompass a wide range of fabric.

The majority of artefacts from PS4 come from the function personal/household, with all of the 311 MIC being beads. Beads were used as jewellery, necklaces, bracelets etc as well as being sewn onto clothes and household furnishings such as cushions. With 20.64% of the total items, the personal

and the household were the next largest functions. Buttons made up the majority of the personal function with 129 MIC. Within the household function it was the sewing pins that had the majority (113 MIC).

The recreational function includes toys used by children, such as marbles, dolls and tea sets, as well as tobacco pipes which were the main method of smoking tobacco before cigarettes became more widely available and popular in c.1900 (Gojak & Stuart 1999:40).

Table 6.29 Sum and percentage of miscellaneous artefacts by general function.

General function	MIC	MIC (%)	Fragment	Fragment (%)
Beverage	10	1.14	41	3.59
Clerical	25	2.86	35	3.06
Economy	14	1.60	14	1.22
Food	12	1.37	20	1.75
Household	184	21.05	274	23.97
Household/industry	2	0.23	2	0.17
Industrial	1	0.11	1	0.09
Personal	181	20.71	228	19.95
Personal/household	311	35.58	346	30.27
Pharmaceutical	1	0.11	1	0.09
Recreational	124	14.19	172	15.05
Service	5	0.57	5	0.44
Unidentified	4	0.46	4	0.35
Total	**874**	**100%**	**1143**	**100%**

Most of the artefacts were found in the underfloor deposits of Room 5 of House 133, and Room 3 of House 131 (Figure 6.33). Underfloor deposits are archaeological deposits found under and between floors in buildings, standing or otherwise, and have the potential to provide information on human behaviour in the past, providing insights into households and household activities, consumer patterns and social economic status.

Early timber floorboards in Australia were usually square edged and butted together (shot floorboards) (Figure 6.32). Tongue and groove floorboards were used in government buildings from the early 1860s (Public Works Department, 1856: 66). However, it was the introduction of specific machinery in the 1880s that allowed tongue and groove floors to become more commonly used in housing (Casey & Lowe, 2004). Both types of boards continued to be used throughout the nineteenth century housing (Melbourne Exhibition, 1880:50).

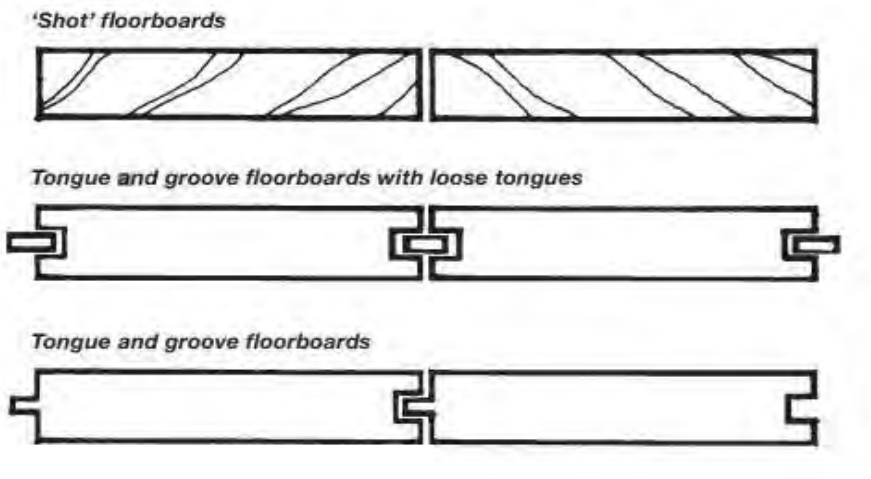

Figure 6.32 Floorboard Types (NSW Heritage, 2005).

The condition of the floorboards and skirting, if any, is crucial as to how large and how many items could slip below and become incorporated into the underfloor deposit. The boards would deteriorate over time and the floor could slope down in one direction affecting the pattern of underfloor accumulation. The use of tongue and groove boards improved the ability of the floor to resist movement caused by moisture change, which in turn could lead to warping and gaps in the floorboards, as well as between the boards and the walls. The tongues in the boards prevented items falling through to the underfloor. Gaps often form between boards in doorways or other high traffic areas as well as beside walls if the skirting boards are damaged or non-existent. The behaviour of the residents in keeping the house clean and tidy had a secondary impact on artefact distribution below the floor. It has often been observed how sweeping tends to work towards a convenient door or a gap in the floor (Casey & Lowe, 2004). Many small items or fragments would easily be incorporated in the dust.

At PS4, after the demolition of the earlier houses, the construction of the three, two story terraces, probably with tongue and groove floorboards, likely explains the limited number of miscellaneous artefacts found in their footprint. Most of the artefacts come from the back and side areas of the earlier houses.

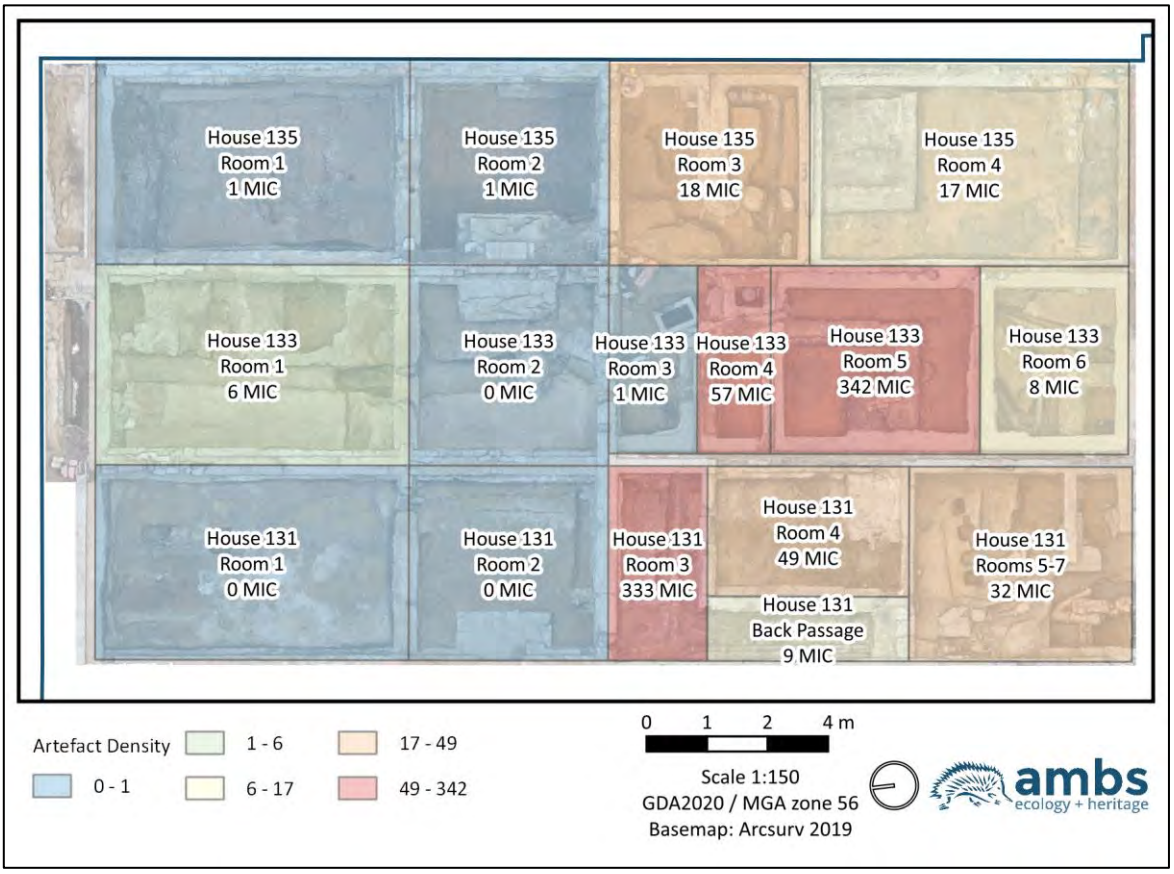

Figure 6.33 Distribution of miscellaneous artefacts by House and Room.

6.9.1 House 131

House 131 was on the western side of the three buildings, built in 1882 in the location of the previous House 119's partial footprint and its passageway. A grindery warehouse was the first business shown on the Fire underwriters plans for the new buildings (Figure 3.11) then, in 1887, the business expanded to include a boot upper manufacturer. From 1892 the shop was a second-hand clothing shop which, in 1907, Myer Mitchell, who had already established a second-hand dealership at 145-147 Bathurst Street and advertised the sale of second-hand false teeth, took over (AM Consulting 2016b: 109). The shop is leased to various solicitors, before The Red Star Pharmacy takes the lease.

House 131 had six rooms and the back passageway which contained a total of 423 MIC (512 fragments) of miscellaneous artefacts, with the majority (65%) in House 131 associated with the Personal/Household function (Table 6.25). This category covers artefacts that could be for personal or household use such as glass beads, which are usually regarded as jewellery, mostly worn by women strung onto necklaces, bracelets, and earrings. However, in the Victorian period of occupation, the smaller sized beads were commonly used to decorate dresses and other apparel, accessories such as bags, and a range of household furnishings including pillows and lamp shades (Clabburn, 1980; Wright, 1995).

The household, personal and recreational functions have similar quantities of artefacts, 43, 52, and 46 MIC respectively, with the remaining functions represented by single digits.

Table 6.30 Function and sum of miscellaneous artefacts from House 131.

General function	MIC	MIC (%)	Fragment	Fragment (%)
Clerical	1	0.24	1	0.20
Economy	3	0.71	3	0.59
Household	43	10.17	59	11.52
Industrial	1	0.24	1	0.20
Personal	52	12.29	93	18.16
Personal/household	275	65.01	286	55.86
Recreational	46	10.87	67	13.09
Unidentified	2	0.47	2	0.39
Total	**423**	**100%**	**512**	**100%**

Rooms 3 and 4 were gridded and excavated as underfloor deposits, with the chart below (Figure 6.34) showing these rooms had the highest number of artefacts. The majority of these were in Room 3, (333 MIC, 78%), and mostly consisted of glass beads, 273 MIC.

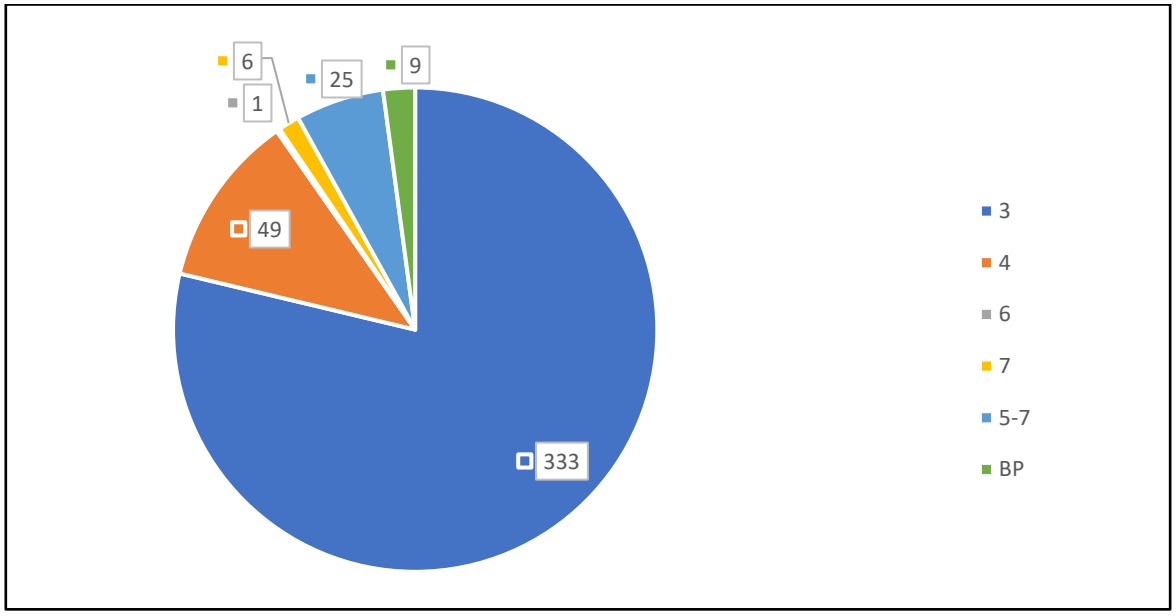

Figure 6.34 Breakdown of miscellaneous artefacts by room in House 131.

Room 3

Room 3 had six contexts with a total of 333 MIC (383 fragments) miscellaneous artefacts (Table 6.31). Context [1272], the underfloor deposit was gridded and wet sieved, and had, by far, the most miscellaneous artefacts in House 131, with 320 items. All miscellaneous artefacts found from the underfloor deposit came from the western squares A1 and A2, the squares nearest the doorway to Room 2. Although the houses likely had tongue and groove floorboards it is likely the artefacts fell through gaps in the doorway between Rooms 2 and 3, possibly swept there during cleaning. The miscellaneous artefacts from the underfloor relate to household and personal activities such as sewing (pins and beads), women's jewellery (beads and brooches) or children's games (marbles).

Table 6.31 Sum of artefacts from House 131, Room 3 by context.

Context	Artefact type	MIC	MIC (%)	Fragment	Fragment (%)
1271	Bead	4	1.20	4	1.04
1272	Bead	269	80.78	276	72.06
	Bottle cap/top	1	0.30	1	0.26
	Brooch	1	0.30	2	0.52
	Button	4	1.20	4	1.04
	Clasp	1	0.30	2	0.52
	Coin	1	0.30	1	0.26
	Comb	1	0.30	1	0.26
	Marble	6	1.80	6	1.57
	Necklace	2	0.60	29	7.57
	Pencil	1	0.30	1	0.26
	Pin	1	0.30	1	0.26
	Straight pin	22	6.31	35	9.14
	Tack	10	3.00	10	2.61
	Chalk	1	0.30	1	0.26
1311	Button	1	0.30	1	0.26
1344	Pipe	6	1.80	6	1.57
1389	Ferrule	1	0.30	1	0.26
1392	Pipe	1	0.30	1	0.26
Total		**333**	**100%**	**383**	**100%**

Context [1271], the interface between the pavers and the underfloor, had four small light blue glass beads that matched 250 beads from the underfloor deposit [1272]. The distribution pattern, the size and the shape of the beads and their cohesive colour scheme suggests that the beads were dropped in a single event rather than over a long period of time.

A number of beads specifically for jewellery were also found in the underfloor deposit, one black facetted piece with two holes in the ends (#722) suggesting a necklace. Another piece of jewellery was a two-piece copper brooch with round hinge. The front plate of the brooch was flat moulded in the shape of a number '1'. Round hinges began to be used for brooches from around the late 1920s (Chervenka, 2022). Oxidisation on the surface meant it was not clear if the front plate was the original shape of the brooch or if it was the base for an applique.

Sewing pins had the next highest number in the underfloor (22 MIC, 36 fragments). The manufacture of pins, which were used for sewing as well as securing clothing, was done by hand until the introduction of new technology in the late nineteenth century. Pins had been made with wound spherical heads (SW) since the sixteenth century, one of the earliest mass production industries in Britain. Before 1700 a single specialized worker could deal with as many as 24,000 pins a day (Tylecote 1972). Early upset head (EUH) pins were partially machined and produced from c.1809. In c.1880 the technique was developed to make the production more streamlined. Only one SW headed pin was found, and 16 EUH, the rest were unable to be dated due to only shanks being present. All pins were tinned. These changes are noted in the catalogue and contribute to the establishment of a minimum deposition date.

Buttons were worn by all ages and genders on outer and inner garments (Fletcher 1984). In this underfloor deposit only four buttons were found, including two mother of pearl (MoP) buttons (#500, #501), a copper alloy trouser button (#502) and a small 4-hole sew-through porcelain button (#503). Sew-through buttons (buttons with 2-5 holes) were made from all materials. Porcelain sew-through buttons are known as 'small Chinas' or 'Prosser' after the English man who, in c.1840,

developed a fast and cheap method of compacting a dry porcelain paste into moulds and so increasing the ability for mass production (Lindbergh, 1999).

Shell buttons, made from a variety of mollusc shells, often called pearl or mother of pearl (MoP), were mass produced in the UK from the beginning of the nineteenth century (Hedge, 2019). However, true mother of pearl buttons were manufactured in Australia after pearling began c.1850s (Peacock,1989; 62).

The copper alloy 4-hole sew-through button, called a 'trouser' or 'suspender' button, once jappaned black (a form of decoration popular in the Victorian era), is very worn with the text around the rim illegible and cannot to provide any information on the manufacturer or the supplier.

Figure 6.35 Various glass beads from the underfloor deposit [1272] in Room 3 of House 131. Top Row (l-r); aqua blue beads (714#), bichrome beads (708#). Middle row: various beads connected with copper alloy wire (#725), black bead from a necklace (#722), pale green bead, small (#707), pale green spherical bead, large (#719), dark green bead (#705), green barrel bead (#718). Bottom row; white barrel bead (#721), various coloured barrel, cylindrical and seed beads (10) (#717). Scale 100mm.

Another common find on any archaeological site are marbles, extremely popular children's toys in the eighteenth and nineteenth centuries as they were cheap, easily carried in pockets and played anywhere there was a flat surface, however, this also made them easy to lose. Of the six marbles found in the underfloor context in Room 3, five were made from inexpensive limestone, imported from Germany until the onset of (WWI) and represent the presence of children in the house.

All other artefacts from context [1272] were represented by single artefacts. A clutch purse frame (#2918), a faux tortoiseshell comb or hairgrip (#839) and a slate pencil fragment (#756). Slate pencils are often associated with children as they were commonly used in schools, including Sunday schools, by children until c.1960s (Davies, 2005). Finding a slate pencil may indicate their use by the residents in the home or that the pencils were put in a pocket and brought home, only to be lost. Slate pencils and boards were also used by some businesses as a convenient way to keep notation.

The lack of clay smoking pipes in the underfloor is unusual. Pipes were the main method of smoking tobacco before cigarettes became more widely available and popular in c.1900. The only pipes in this room came from context [1344], located below the underfloor [1272], and consisted of six plain stem fragments of clay pipes.

Back Passageway

The back passageway of House 131 was the back yard of 119 and along the west side of Room 3, with CEW services underlying varying fill deposits. It contained nine artefacts from five contexts (Table 6.32). Three smoking pipe fragments were found in three of the contexts. All were plain stem and mouth pieces and unable to be dated. The sinker offers evidence of fishing, whether recreational or practical or possibly both.

Table 6.32 Sum of artefacts from House 131, Back Passage by context.

Context number	Artefact shape	MIC	MIC (%)	Fragment	Fragment (%)
1216	Pipe	1	11.11	1	11.11
1217	Pin	1	11.11	1	11.11
	Sinker	1	11.11	1	11.11
1221	Pipe	1	11.11	1	11.11
1223	Button	1	11.11	1	11.11
	Marble	1	11.11	1	11.11
	Pipe	1	11.11	1	11.11
	Unidentified	1	11.11	1	11.11
1445	Pin	1	11.11	1	11.11
Total		**9**	**100%**	**9**	**100%**

Room 4

Room 4 had a total of 49 miscellaneous artefacts from five contexts (Table 6.33). Archaeological deposits within room 4 had been considerably disturbed during the clearance of the demolition of the 1882 terrace row. Almost all the underfloor deposit had been removed and replaced by modern demolition material [1212], in which one shell button was found (#517). Context 1268, a small, intact underfloor from this room had the majority of artefacts (31 MIC), with over half (54.8%) of these buttons.

The room was not only disturbed from the demolition of the terrace but also from rodent burrows [1314] the fill of which [1286] contained four artefacts including a brooch pin (#851), a handmade spherical headed pin (#473) dating until c.1880, and two metal buttons (#509, #512) dating from c.1850.

Table 6.33 Sum of artefacts from House 131, Room 4 by context.

Context number	Artefact type	MIC	MIC (%)	Fragment	Fragment (%)
1212	Button	1	2.08	1	1.54
1268	Bead	4	8.33	8	12.31
	Buckle	1	2.08	6	9.23
	Button	17	35.42	18	27.69
	False Teeth	1	2.08	3	4.62
	Gaming Piece	1	2.08	1	1.54
	Hook/Eye	1	2.08	1	1.54
	Inlay	2	4.17	2	3.08
	Marble	2	4.17	2	3.08
	Straight Pin	1	2.08	2	3.08
	Upholstery Pin	1	2.08	1	1.54
	Wire	1	2.08	4	6.15
1283	Bottle cap/top	1	2.08	1	1.54
	Button	1	2.08	1	1.54
	Key	1	2.08	1	1.54
	Marble	2	4.17	2	3.08
	Pin	2	4.17	3	4.62
	Pipe	1	2.08	1	1.54
	Unidentified	1	2.08	1	1.54
1284	Button	1	2.08	1	1.54
	Pipe	1	2.08	1	1.54
1286	Brooch	1	2.08	1	1.54
	Button	2	4.17	2	3.08
	Straight Pin	1	2.08	1	1.54
Total		**49**	**100%**	**66**	**100%**

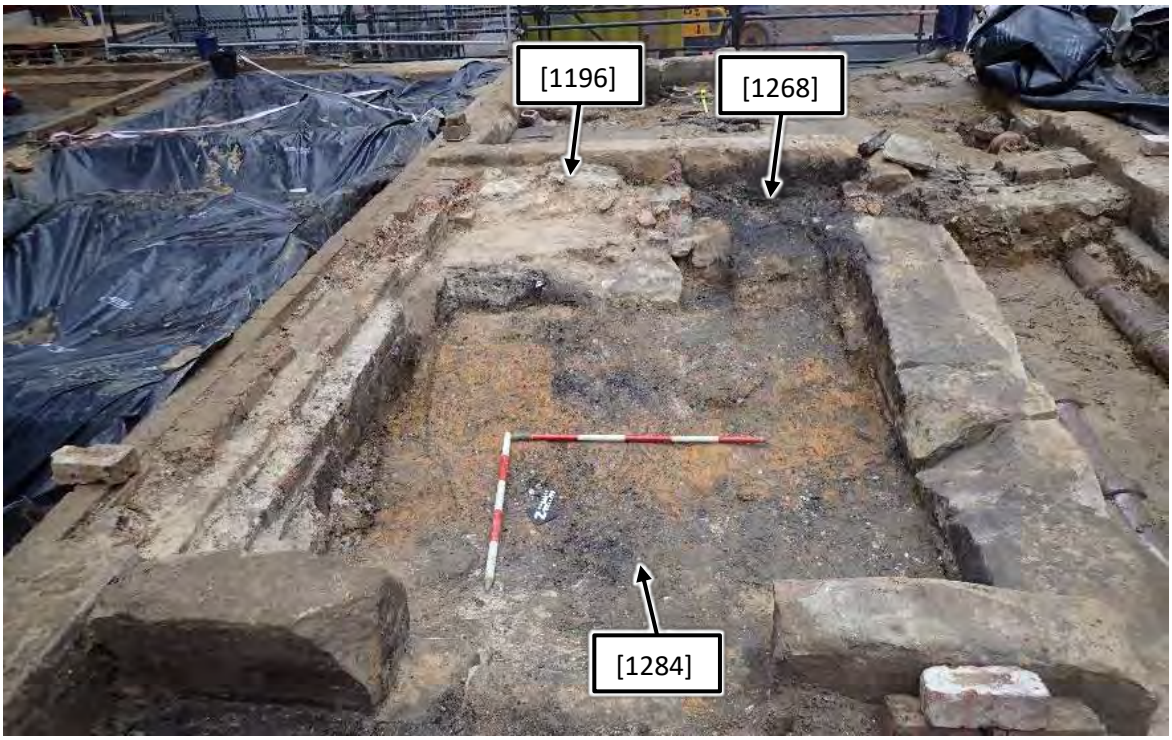

Figure 6.36 House 131, Room 4 showing the location of the intact underfloor context [1268], and the disturbed underfloor [1284]. Context [1283] was the fill for wall 1196 also seen on this image.

Buttons were found in every context that contained miscellaneous artefacts in Room 4. The intact underfloor, 1268, at the southern end of the room had 17 buttons which were MoP (#506), copper alloy (#515, #516, #762), iron (#510) and porcelain (#519) with dates of manufacturing ranging from c.1830s to c.1880. Other clothing items found in this context were a hook and eye (#802) and a heavily encrusted ferrous buckle (#2920).

Figure 6.37 Image of buttons from various contexts in Room 4, House 131. Top Row (l-r); Large shell button (#1212/#517), 2-hole cream porcelain button (#1268/519), various shell (MoP) 2 and 4 hole sew-through buttons (7) (1268/#506). Middle row; (1286/#509), heavily encrusted Iron 4-hole button (1268/#510), copper alloy trouser button 'EXCELSIOR' (1286#512), copper alloy button (#1284/513), copper alloy button (1268/#516), (#511). Bottom row: Copper alloy buttons with remnant fabric covers evident (1286/#515). Scale 100mm.

There are eight small glass beads (#726, #727, #729, #730) that were found in the underfloor, including one made from polished coral (#727). Other personal items include two small white glass inlays (#518), possibly from a ring or a small piece of jewellery. An unexpected find in the underfloor were three individual false teeth (#691); a central incisor, first or second premolar with pink dyed material adhering, and a molar perhaps from a single bottom jaw prosthetic. The 'gum' was either dyed vulcanite of gutta percha, indicating the fabric of the denture, likely manufactured between 1864 and 1934 (British Dental Association, 2021; Rueggeberg, 2002: 366). Myer Mitchell the second-hand goods dealer who occupied House 131 from c.1907 also advertised second hand false teeth from 1914 (AM Consulting 2015b:109).

Figure 6.38 False teeth ([1262]/#691). Scale 100mm.

Evidence of recreational activities in context 1268 were limited to games. A polished bone counter (#754) and two glass marbles from context [1268] (#493, #2939). The marbles were likely both imported from Germany. They were heavily battered and chipped from use, making it hard to tell the exact design. Glass marbles were more expensive than limestone marbles, of which only one was found in this room ([1283]/#494).

Clay smoking pipes, items associated with a recreational activity, were found in the disturbed underfloor ([1284]/#472) and the fill of wall 1196 ([1283]/#485). Both these pipes were plain and broken.

Room 5-7

There were 32 MIC, 54 fragments of artefacts from 13 contexts in Room 5-7, with 50% of them clay smoking pipes (Table 6.34). An overlying demolition rubble [1197] had a stem fragment with the stamped type 'LACHLANDER' on the left-hand side and the manufacturer 'CROP' on the right-hand side. These pipes were specifically made in Britain for the colonial market. Crop manufactures clay pipes from c.1856 to c.1924, however the style, Lachlander, is also replicated by others.

Under the rubble was large sandstone flagging (Figure 5.27) which, once removed, revealed the room was heavily disturbed by CEW pipes. Two fills [1229 and 1300] for the services both contained pipe fragments ([1229]/#464, [1300]/#463) including a clay smoking pipe mouthpiece with evidence of mouth and teeth ware. Each context also had buckle components ([1229]/#477, #478, [1300]/#484), one of which is a copper alloy snake clasp with its head touching its body symbolising the duality of good and evil (Bateman, 2017). These snake clasps were popular on military uniforms in the nineteenth/twentieth century and could possibly have fallen off an item collected for the second-hand clothing shop which was in business, albeit with different management, from c.1892-c.1918. These fills also contained two very small limestone marbles ([1229]/#495), a polished bone button ([1300]/#508) and a glazed porcelain figurine head ([1300]/#674).

The sandy charcoal fill [1388] of an L-shaped cut (Figure 5.31), contained a brass EUH pin (#481) that can be dated from c.1807 and a two fragments of a plain, trimmed clay pipe stem and mouthpiece (#467) that cannot be dated. A series of five post holes were found in this area, only one square hole with a miscellaneous artefact in its fill ([1467]/#468) (Figure 5.32). The L shaped cut and the locations of these post holes roughly align with the extent of Louisa Terrace as shown on the 1831 plan of the study area, indicating they may be associated with its construction.

A fill [1342] associated with the cess pit [1330] had a clay pipe made in the UK for Sydney Tobacconist Thomas Saywell and dates from c.1865, along with a plain stem/mouthpiece with honey brown glaze (for ease of smoking) on the mouthpiece (#2942).

Cesspits, which were a sealed underground structure with a hole or a toilet above, had to be emptied, with regularity of the service depended on the size of the house, houses or business using them. Within the archaeological record, cesspits often produce a concentration of artefacts. When cesspits became obsolete with the introduction of a sewerage system to the area, they were cleaned out and backfilled and converted to a WC. The backfill could consist of landfill from other areas or clean deposits of sand or soil (Crook and Murray, 2004: 49). However, the cesspit [1330] in House 131 had only seven miscellaneous artefacts, four clay pipes (#462, #2943), a heavily worn clay marble (#496), a small china four hole sew-through button (#514) and a glass item, possibly part of an ornate light fitting (#682). One of the pipes was a Squatters Budgeree type manufactured in Scotland for the colonial market between c.1840 and c.1865 (Gojak & Courtney, 2018). The small number of artefacts found in the cesspit may suggest that it was backfilled with a clean fill as well as being disturbed by the installations of later services.

Table 6.34 Sum of artefacts from House 131, Room 5-7.

Artefact type	MIC	MIC (%)	Fragment	Fragment (%)
Buckle	3	9.38	3	5.56
Button	3	9.38	3	5.56
Coin	2	6.25	2	3.70
Earring	1	3.13	2	3.70
Figurine	1	3.13	1	1.85
Film	1	3.13	2	3.70
Marble	4	12.50	4	7.41
Pipe	15	46.88	35	64.81
Pin	1	3.13	1	1.85
Unidentified	1	3.13	1	1.85
Total	**32**	**100%**	**54**	**100%**

Figure 6.39 Clay smoking pipes from Room 5-7, House 131. Top row (l-r): 2 plain bowls ([1413]/#2943), plain stems (7) ([1388]/#467). Second row: examples of pipe bowls black from use ([1467]/#468), fragment of pipe stem with remnant honey brown glaze on mouthpiece ([1342]/#2942). Third row; long, narrow pipe stem ([1300]/#463). Bottom row: stem with stamped mark 'SAY[WELL]' (1342/#470), stem with stamped makers mark '[LA]CHANDER' (469). Scale 100mm.

6.9.2 House 133

House 133 was the middle terrace standing partially on the footprint of the previous House 119. Tenants included Mr. George Tall who ran an iron monger and later, c.1887, a locksmith. In 1896, 133 became Paragon Café and continued until 1926 when Jack Rapken, the pawnbroker, operated a dealership.

House 133 had six rooms excavated, with five rooms containing a total of 414 MIC and 584 fragments of miscellaneous artefacts, the majority of which (33.5%) are associated with the Household function (Figure 6.52).

Table 6.35 Function and sum of miscellaneous artefacts from House 133.

General function	MIC	MIC (%)	Fragment	Fragment (%)
Beverage	10	2.42	41	7.02
Clerical	23	5.56	32	5.48
Economy	11	2.66	11	1.88
Food	10	2.42	18	3.08
Household	139	33.57	213	36.47
Household/industry	2	0.48	2	0.34
Personal	118	28.50	123	21.06
Personal/household	35	8.45	57	9.76
Pharmaceutical	1	0.24	1	0.17
Recreational	60	14.49	81	13.87

General function	MIC	MIC (%)	Fragment	Fragment (%)
Service	3	0.72	3	0.51
Unidentified	2	0.48	2	0.34
Total	**414**	**100%**	**584**	**100%**

Across the site, House 133 has the highest number of items (121 MIC) associated with the personal function. These include artefacts from clothing (buttons), jewellery (beads) and grooming with many of them excavated from the underfloor deposits in Rooms 4 and 5 (Figure 6.40). Room 5 has the largest number of artefacts with 326 items coming from the underfloor deposit [1102]. Only the underfloor deposit in Room 4 [1107] has miscellaneous artefacts. Rooms 1, 3 and 6 have a total of 16 artefacts and will be discussed together.

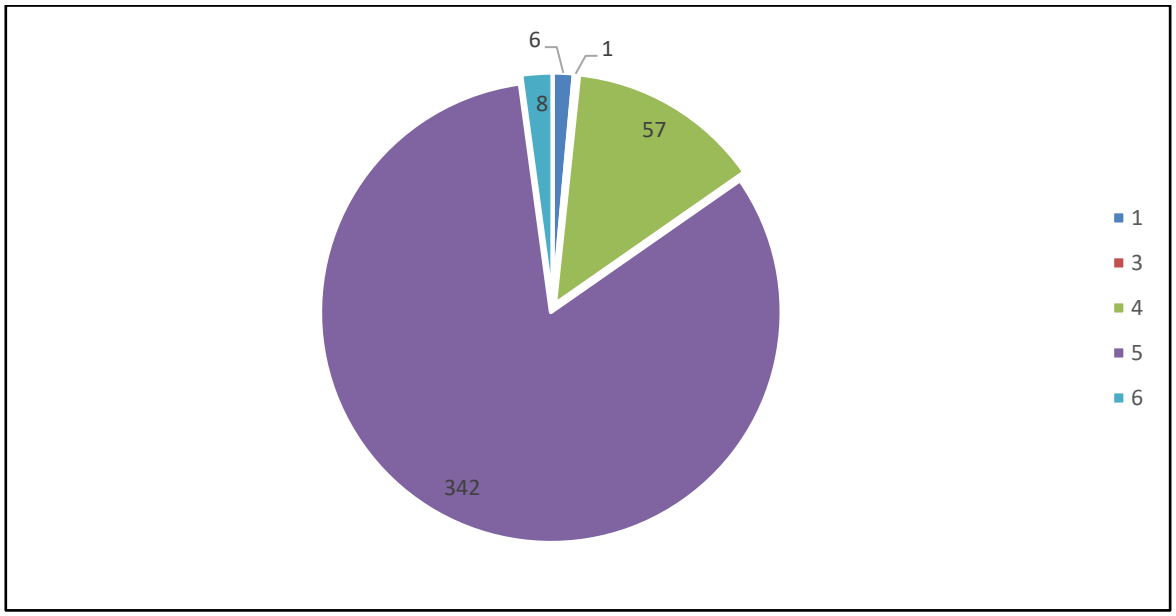

Figure 6.40 Breakdown of miscellaneous artefacts by room in House 133.

Rooms 1,3 and 6

Room 1, 3 and 6 has a total of 16 miscellaneous artefacts (Table 6.36). Room 3, the middle room in the house had one pin, used for sewing or pinning up clothes, and was manufactured from c.1809 until c.1880. Both rooms 1 and 6 had similar general functions, personal, household, and recreational, however the specific functions are different, suggesting different activities in each room.

The artefacts in Room 1 included two items of jewellery, a circular, silver pendant (#1309) and a decorative copper alloy item, possibly for attaching to a belt or part of a buckle (#1125). There was no jewellery in Room 6. Room 1 also had a 1951, Australian three pence coin in the fill of the service trench [1233], and a pin ([1281]/#1476) from a rodent nest/run.

Both Room 1 and Room 6 had one small glass bead each (#1390, #1531), used for jewellery or for decorating accessories or furnishings. Both rooms also had clay smoking pipes, Room 1 had one pipe (#1059) incised with 'McDOUGALL', the manufacturer who operated in Scotland from c.1846. Room 6 had three pipes, all plain and unable to be dated.

Room 6 contained four buttons, two shell ([1032]/#1543 and [1142]/#1542), one copper alloy ([1096]/#1532) and a large porcelain button ([1046]/#1395) dating from c.1850. there were no buttons from Room 1.

Table 6.36 Sum of artefacts from House 133, Room 1,3, and 6 by context.

Room	Context	General function	Specific function	Artefact type	MIC	Fragment
1	1231	Personal	Jewellery	Pendant	1	1
				Unidentified	1	1
	1234	Economy	Currency/money	Coin	1	1
	1281	Household	Sewing	Straight pin	1	1
	1335	Personal/household	Jewellery/accessory/furnishing	Bead	1	1
		Recreational	Smoking	Pipe	1	1
3	1063	Household	Sewing	Straight pin	1	1
6	1032	Personal	Clothing	Button	1	1
		Recreational	Smoking	Pipe	1	1
	1036				1	1
	1046	Personal	Clothing	Button	1	1
	1050	Recreational	Smoking	Pipe	1	2
	1096	Personal	Clothing	Button	1	1
		Personal/household	Jewellery/accessory/furnishing	Bead	1	1
	1142	Personal	Clothing	Button	1	1
Total					**15**	**16**

Figure 6.41 Artefacts from Rooms 1 and 6 in House 131. Top row (l-r): Room 1 pendant ([1231]/#1309), coin ([1234]/#1310), blue wound glass bead ([1335]/#1390), Room 6, Porcelain button ([1046]/#1395). Middle row Room 1, copper alloy accessory ([1231]/#1125). Pipes (top-bottom): thick stem fragment ([1032]/#1060), narrow stem and simple mouthpiece, teeth ware evident ([1036]/#1064), plain stem fragments (2) ([1050]/ #1061). Pipe with makers mark 'DOUGALL' ([1335]/#1059). Scale 100mm.

Room 4

Room 4 was in the middle of House 133. Much like House 131, Room 4 was partially situated over the shed of the earlier house 119. The underfloor deposit [1107] was the only context to contain miscellaneous artefacts, it was gridded with two squares excavated in 50mm spits and wet sieved.

A total of 57 artefacts (82 fragments) were found in the underfloor (Table 6.37). Buttons are the only artefact that are represented with 13 items. The presence of a two-piece copper alloy button (#1406) bearing the raised image of a ships anchor with a rope twisted around it (commonly known as a 'fouled anchor') could indicate either maritime connections or an interest in maritime activities. A small pendant (#1373) with a sailor on top of a ship with a clear domed glass inlay, possibly to hold a piece of hair, is another artefact pointing to the love of seafaring items. A heavily encrusted button (#2923), probably copper alloy with a ferrous back, can be dated to c.1802 by the loop shank on the back (Olson, 1963). A black and white bullseye glass, copper mounted solitaire and a bone shirt stud (#1397) were also present. Shirt studs and solitaires were primarily accessories for male garments, although occasionally they were worn by women, and were in common use from 1830 until the 1950s (Lindbergh, 1999: 52; Eckstein et al, 2011).

Table 6.37 Sum and percentage of artefacts from the underfloor deposit in House 133, Room 4, context [1107].

Artefact type	MIC	MIC (%)	Fragment	Fragment (%)
Bead	4	7.02	10	12.20
Bell	1	1.75	2	2.44
Bottle cap/top	2	3.51	11	13.41
Brush	1	1.75	1	1.22
Button	13	22.81	14	17.07
Clasp	1	1.75	1	1.22
Coin	1	1.75	1	1.22
Container	1	1.75	1	1.22
Cork	1	1.75	2	2.44
Doll	1	1.75	1	1.22
Feeding bottle	1	1.75	2	2.44
Figurine	1	1.75	1	1.22
Hook	1	1.75	2	2.44
Marble	9	15.79	9	10.98
Other	1	1.75	1	1.22
Pencil	3	5.26	4	4.88
Pendant	1	1.75	1	1.22
Pipe	2	3.51	2	2.44
Safety pin	1	1.75	1	1.22
Straight pin	9	15.79	13	15.85
Thimble	2	3.51	2	2.44
Total	**57**	**100%**	**82**	**100%**

Figure 6.42 Ornate fastenings and jewellery from the underfloor deposit [1107] in House 133, Room 4 Top row (l-r); copper alloy button with a fouled anchor on the face (#1406), Pendant/locket with a sailor with oars in a stylised row boat, locket window glass possibly for hair or a picture (#1393). Bottom row; Jewellery clasp (#1335), a bone button or stud (#1397), black and white glass button (#1396). Scale 100mm.

The nine marbles in this context show evidence of children. Seven marbles are made from limestone, and date from c.1800. An aqua green glass Codd bottle marble, once used as a stopper, would have been taken from a discarded bottle and used by children as part of a game. Both these types of marbles are cheap, easily accessed, and, in the case of the Codd marble, free. A Rose pink glass alley marble was also found with central swirls of pink, green, white and yellow. Other probable evidence is a small oval eye from a doll (#1338). However, dolls were also enjoyed by women and kept on display in the house (Hillier: 1968). A small bone nipple guard, used on baby's bottles, teething rings and pacifiers was also found (#1462). Three slate pencils, one with a stamped mark '[A].W. FABER' and sharpened at both ends. The company Faber was started in 1761, became A.W Faber until 1900 when it became Faber and Castell (Faber-Castell 2023).

There were also nine pins, used for sewing or clothing as well as a safety pin with its manufacture dating from c.1870 due to its corrugated protective cap. The first safety pin was invented and patented by Walter Hunt in 1849 (Hunt, 1849).

Although undated, certain artefacts could tell us about the everyday life of the residents. These include a copper alloy tube (#1334) with an embossed hand holding a pen or a pencil indicating writing implements were an important part of life (Figure 6.43). There is also a part of a porcelain ornament in the shape of flower (#1382), revealing a sample of the style of the occupants (Figure 6.44).

A handheld whetstone, used to sharpen knives, was also found in House 133, Room 5 (#1149, #1165). The pieces were found in the underfloor context but in different parts of the room (Figure 6.45).

Figure 6.43 Copper alloy tube decorated with a hand holding a writing implement on the lid #1334. Scale 100mm.

Figure 6.44 A partial ornament in the shape of a flower #1382. Scale 100mm.

Figure 6.45 A handheld whetstone (l-r) 1102/#1149, #1165. Scale 100mm.

Room 5

Room 5 in House 133 was at the southern end of the house, it was located over what was the yard of house 119 and partially over a back room of Louisa Terrace.. It contained an L-shaped stone footing with evidence of a hearth [1097]. To the north and east of the hearth, enclosed by the sandstone footing was an underfloor deposit [1102] consisting of a dark brown sandy loam containing a variety of artefacts.

The room was gridded into three squares, the numbering following on from Room 4. A total of 342 miscellaneous artefacts were excavated from Room 5, context [1102], the underfloor deposit, had

330 artefacts with the remaining 12 items coming from contexts 1065, 1148, 1163 (Table 6.38). A high percentage (21%) of clay smoking pipes from the site were found within Room 5. Context [1163], possibly a fill from a rubbish pit, had 24 fragments of pipe, many with marks and/or decorations (Figure 6.46). Only two of the pipe fragments could be identified by their marks, one was made by Joseph Elliot in Market Wharf from c.1928 to c.1840. The other was also made by a manufacturer called Elliot, although not related. Samuel Elliot worked from Clarence Street in Sydney from c.1832-c.1840 (Gojak & Stuart, 1999). An effigial pipe was also found, depicting a man with a moustache (#2957). These 'effigial' style pipes were popular throughout the nineteenth century, especially from c.1840. They often represented significant or infamous persons of the day. Effigial pipes were made in Sydney from c1820-1840 but are less carefully moulded and finished than imported pipes (Duco, 2004; Gojak & Stuart, 1999; Wilson, 1999). The features on this example indicate that it was made in the UK or Europe rather than of local manufacture. From the underfloor [1102] there is also a wooden and iron tamper (a tool to press down the tobacco to manage its burning), that resembles a leg and boot (#1461).

Table 6.38 Sum and percentage of artefacts from House 133, Room 5.

Context number	General function	Artefact shape	MIC	MIC (%)	Fragment	Fragment (%)
1065	Household	Unidentified	1	0.29	1	0.21
1102	Beverage	Bottle cap/top	2	0.58	15	3.09
		Wire	5	1.46	13	2.67
	Clerical	Pen	1	0.29	3	0.62
		Pencil	18	5.26	24	4.94
	Economy	Coin	8	2.34	8	1.65
		Token	1	0.29	1	0.21
	Food	Can	1	0.29	5	1.03
		Knife/fork	3	0.88	5	1.03
		Spoon	4	1.17	5	1.03
		Unidentified	1	0.29	1	0.21
	Household	Bead	1	0.29	1	0.21
		Blue	1	0.29	3	0.62
		Hinge	3	0.88	3	0.62
		Knob	3	0.88	3	0.62
		Pin	2	0.58	4	0.82
		Ring	1	0.29	1	0.21
		Safety pin	4	1.17	4	0.82
		Scissors	1	0.29	1	0.21
		Straight pin	102	29.82	165	33.95
		Thimble	1	0.29	1	0.21
		Unidentified	1	0.29	1	0.21
		Weight	2	0.58	4	0.82
	Household/industry	Tool	2	0.58	2	0.41
	Personal	Bead	1	0.29	1	0.21
		Brooch	3	0.88	5	1.03
		Brush	1	0.29	1	0.21
		Buckle	1	0.29	1	0.21
		Button	76	22.22	75	15.43
		Corset	2	0.58	3	0.62
		Faux gem	2	0.58	2	0.41
		Hook/eye	3	0.88	3	0.62
		Inlay	1	0.29	1	0.21
		Pin	1	0.29	2	0.41
		Shoe	1	0.29	1	0.21
		Toothbrush	1	0.29	1	0.21

Context number	General function	Artefact shape	MIC	MIC (%)	Fragment	Fragment (%)
		Unidentified	2	0.58	2	0.41
	Personal/household	Bead	28	8.19	40	8.23
	Pharmaceutical	Weight	1	0.29	1	0.21
	Recreational	Doll	1	0.29	2	0.41
		Gaming piece	2	0.58	2	0.41
		Jug	1	0.29	3	0.62
		Marble	25	7.31	25	5.14
		Pipe	3	0.88	3	0.62
		Tamper	1	0.29	1	0.21
		Whistle	1	0.29	1	0.21
	Service	Battery core	1	0.29	1	0.21
		Other	1	0.29	1	0.21
	Unidentified	Label	1	0.29	1	0.21
		Tube	1	0.29	1	0.21
1148	Recreational	Pipe	1	0.29	3	0.62
1163	Personal/household	Bead	1	0.29	5	1.03
	Recreational	Pipe	9	2.63	24	4.94
Total			**342**	**100%**	**486**	**100%**

Figure 6.46 Image of pipes from room 5 plus tamper. Top row (l-r): fluted and hatched bowl with floral design, partial stem and spur ([1163]/#2956), Effigial pipe, man with moustache ([1163]/#2957), fluted bowl and spur ([1163]/#2955). Middle row: porcelain pipe stem ([1102]/#783), iron and wooden tamper ([1102]/#1461), 2 long narrow pipe stems ([1163]/#2954). Below tamper (top-bottom): simple reused mouthpiece ([1102]/#1056), mouthpiece with glaze and wax evident ([1102]/#1066), stem fragments with makers mark 'ELLIOT' ([1148]/#1062). Scale 100mm.

Recreational items also include 25 marbles, suggesting a presence of children. There were 16 limestone marbles, made in Germany and dating from c.1800 and with varying diameters. Two of them were once painted (#1073, #1076), and all of them worn with evidence of use in the form of battering marks. There were also four glass marbles, one with a dark blue core (#1078) the other three are light blue/green Codd bottle marbles (#203, #1081, #1380). The remaining four marbles included three white porcelain marbles (China Alleys) (#1299, #1410, #2950), dating from c.1840. There was only one stoneware marble, a dark brown glazed Bennington (#2949) also made in Germany from c.1842 (Figure 6.47). These marbles are less frequently found as they can cost more to buy and are less accessible than the others (Gartley & Carskadden, 1998).

Although there was a high number of marbles, which traditionally boys played with, only two fragments of an unglazed dolls head (#1488) and fragments of a jug from a toy tea set were found (#909), which, traditionally, were played with by the girls in the house. A pewter whistle (#1364) and two bone gaming counters were also found in the underfloor deposit (#1366, #1376). Another indication there may have been children in the house is the presence of 16 slate pencils. There were also three fragments of lead pencil for mechanical pencil holders which date from c.1822 (Crosby, 2007).

Figure 6.47 Sample of artefacts representing the presence of children from the underfloor in Room 5, House 133. Slate pencils (#1323), pewter whistle (#1364), porcelain jug from a teaset (#909), various marbles (from top left to bottom) aqua green glass marble (#1380), a blue glass marble (#1078), small limestone marble (#1073), different sized white porcelain marbles (3) (#1299, #1410), limestone marbles, once painted (2) (#1389), brown Bennington marble (#2249). Scale 100mm.

Room 5 has 58% (76 MIC) of the buttons from across the site. They include a wide variety of buttons, representing clothing worn by all ages and genders. The most numerous buttons were common types made from copper alloy. Machine-stamped copper alloy buttons were made from c.1850 to the present day and fastened men's trousers and shirts. A number from the room have been stamped by their manufacturer with generic slogans which are popular from c.1850. These included 'EXCELSIOR', 'OUR OWN MAKE' and 'BEST RING EDGE'. One button was stamped with 'G. BOND / SYDNEY'. This is likely manufactured by George Alan Bond who came to Australia in c.1907. From 1915 he started patenting and trademarking articles of clothing. The firm of George A. Bond and Company was the start of what became Bonds Industries Limited (Australian Button History, 2020).

A total of 20 MoP buttons were found, all with 2 or 4 sew-through holes in the centre and date from c.1850, and only two bone buttons were found (#1400, #1557), both polished and probably studs used by men. These date from c.1850-c.1950. The four glass buttons found from context 1102 include a translucent red glass dome inlay on a copper alloy mount with a stud with a detachable shank, it is marked 'F. MOORE CO / PATENT' (#1399). This type of button, spring back solitaire, with registered marks were produced between 1872 and 1890 (Eckstein et al. 2011). There are two black glass buttons (#1392, #1393).

Other items associated with clothing include two corset busks with copper alloy hooks (#1109, #1352) (Figure 6.48). Corsets were standard undergarments for women from c.1829-c.1935 (Fletcher, 1984; Fontarel, 1992, 1997; Scandrett, 1978). Other items associated with women include copper alloy pins from brooches (#1351, #1439) and copper alloy clothes hook and eyes (#1414, #1438, #1498). There was one belt buckle found, probably for a man as more functional than decorative (#1353).

Figure 6.48 Sample of artefacts, from Room 5 of House 133, that represent the presence of women, their clothing and jewellery. Top Row(l-r); Fragments of corset bust and hooks (#1109, #1352) Middle row; pin from a brooch (#1351). Bottom row; Jewellery pieces: copper alloy clover leaf (#1355), copper alloy button with milk glass inlay (#1398), spherical black glass button (#1393), copper alloy fluted button (#1134), red glass inlay (#1316), copper alloy spherical button (#1401). Scale 100mm.

There were 102 brass pins found and those with a head can be identified as an EUH type made until c.1880 when the introduction of new machinery to make the process easier and faster was introduced. Pins are small, easily lost and easily replaced. The large number of pins suggest this room may have been used for sewing around the fireplace. To strengthen this interpretation there was also a thimble (#1515) and a fragment of sewing scissors found (#1563).

There are eight British coins that were excavated from this room, they were all minted during Queen Victoria's reign dating from c.1860 to c.1901. Most of these were pennies (#1305, #1307), or half pennies (#1306, #1308, #1362, #1363). There were also two, three pence pieces, both very worn and one likely minted in Australia dating it from c.1901 (#1311).

Businesses had tokens made by specialist manufacturers to advertise their products or services as well as to encourage return custom. Only one token was recovered (#1303), it was embossed METCALF / & / LLOYD / 478 GEORGE STREET / SYDNEY/ SHIPPING AND FAMILY GROCERS and on the reverse was 'WIN[E] / AN[D] / [S]PIRIT / [MER]CHANTS'/ '[PURVEY]ORS OF THE CONCENT[RATED FAM]ILY COFFEE 1863'. Metcalfe & Lloyd was located at 478 George Street, Sydney and was a joint venture of William F. Lloyd and Thomas Metcalfe, established in 1863 until 1866 (Figure 6.49).

Figure 6.49 Metcalf & Lloyd Token #1303. Scale 100mm.

6.9.3 House 135

House 135 was at the far eastern side of PS4. The business changed several times between the 1880s and the present, with businesses including pawn brokers and tobacconists.

House 135 has the smallest number of miscellaneous artefacts excavated (37 MIC) of the three houses (Table 6.39). The artefacts came from all four rooms with the recreational function represented by the most artefacts (51%) (Figure 6.50).

Table 6.39 Function, sum and percentage of metal artefacts from House 133.

General function	MIC	MIC (%)	Fragment	Fragment (%)
Clerical	1	2.70	2	4.26
Food	2	5.41	2	4.26
Household	1	2.70	1	2.13
Personal	11	29.73	12	25.53
Personal/household	1	2.70	3	6.38
Recreational	19	51.35	25	53.19
Service	2	5.41	2	4.26
Total	**37**	**100%**	**47**	**100%**

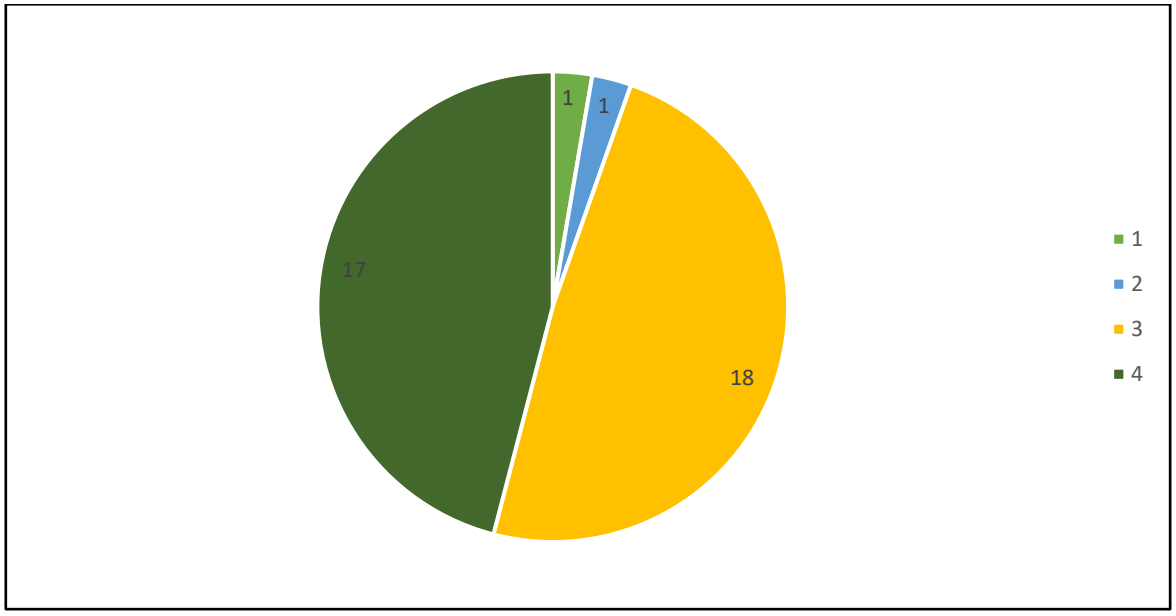

Figure 6.50 Breakdown of miscellaneous artefacts by room in House 135.

Room 1 and 2

Rooms 1 and 2 have one recreational artefact each. Room 1 had a circular bone game counter ([1006]/#1300), and Room 2 had a small fragment of a smoking pipe stem and mouthpiece that had high evidence of teeth ware ([1480]/#1055) (Figure 6.51). The pipe was made in London by Charles Crop and dates from c1856-c.1924(Duco, 2004; Gojak & Stuart, 1999).

Figure 6.51 Charles Crop pipe with heavy mouth and teeth ware from House 135 Room 2 ([1480]/#1360). Scale 100mm.

Room 3

Room 3 has the most miscellaneous artefacts from House 135 with 18 MIC from six contexts (Table 6.40). The recreational function is the only function with more than two items. Context 1134, a patchy fill across the room, had a limestone marble (#1134), and two pipe fragments (#1378) as well as a partial knife (#1357). Other recreational items came from context [1153], a clay demolition fill, including a small porcelain jug from a tea set (#1186), and five clay smoking pipe fragments. Context [1219], a levelling fill with sandstock brick fragments through it, contained four fragments of clay pipe, one with a decorated bowl, depicting a sailing ship on the left-hand side and a three headed thistle on the right-hand side (#1319). An unusual pipe, also found in this context, had a long bowl with an ornate curled spur (#2947) (Figure 6.52).

Table 6.40 Sum and percentage of artefacts from House 135, Room 3.

Context number	General function	Artefact shape	MIC	MIC (%)	Fragment	Fragment (%)
1067	Service	Insulator	2	11.11	2	9.09
1076	Personal/household	Bead	1	5.56	3	13.64
1134	Food	Knife	1	5.56	1	4.55
	Recreational	Marble	1	5.56	1	4.55
		Pipe	2	11.11	2	9.09
1153	Personal	Comb	1	5.56	1	4.55
	Recreational	Jug	1	5.56	1	4.55
		Pipe	5	27.78	6	27.27
1219	Recreational	Pipe	4	22.22	5	22.73
Total			18	100%	22	100%

Figure 6.52 Clay smoking pipes from House 135 Rooms 3 and 4. Bowls (top-bottom); Bowl, spur and stems (2) (1219/#2947), bowl with 3 headed thistle with leaves design (ship on RHS of bowl) ([1219]/#1319), long bowl with ornate curved spur ([1219]/#2948), fragmented bowl with mark 'M&S / SYDNEY'([1219]/#2948). Stem and mouthpieces (top-bottom); stem fragment 'ELLIOT MAKER / CLARENCE STREET' ([1101]/#1359), ([1046]/#1360), ([1153]/#2945), (3) ([1153]/#1320), (2) ([1134]/#1378), ([1153]/#2945), ([1153]/#2954). Scale 100mm.

Room 4

Room 4 has 17 artefacts which were distributed across the room in seven contexts, with most artefacts in the personal function, making up over 50% of the room's total. Room 4, the kitchen, or laundry was the only room in 135 with an underfloor deposit [1164]. The artefacts from this context include three copper alloy buttons (#1405, #2935, #2936), all heavily tarnished, as are the fragments of jewellery, probably brooches (#2933, #2934). Other personal items from this context include a circular buckle, possibly from a shoe (#1425) and a MoP button (#1405). One broken, cylindrical slate pencil (#1321) was also found, made, and used until c.1960s.

There are four pipe fragments from Room 4, three of them manufactured in Sydney, one by Elliot Maker in Clarence Street from c.1832 to c.1840 ([1101]/#1359). The other has a mark 'M&S Sydney' ([1164]/#1317) (Figure 6.52).

Table 6.41 Sum and percentage of artefacts from House 135, Room 4.

Context number	General function	Artefact shape	MIC	MIC (%)	Fragment	Fragment (%)
1046	Recreational	Pipe	1	5.88	1	4.35
1049	Personal	Hook	1	5.88	1	4.35
1069	Personal	Buckle	1	5.88	1	4.35
1076	Household	Straight pin	1	5.88	1	4.35
1101	Personal	Button	3	17.65	3	13.04
	Recreational	Pipe	1	5.88	1	4.35
1164	Clerical	Pencil	1	5.88	2	8.70
	Personal	Brooch	2	11.76	3	13.04
		Button	3	17.65	3	13.04
	Recreational	Pipe	2	11.76	6	26.09

Context number	General function	Artefact shape	MIC	MIC (%)	Fragment	Fragment (%)
1333	Food	Knife	1	5.88	1	4.35
Total			**17**	**100%**	**23**	**100%**

6.9.4 Discussion

Miscellaneous artefact data can provide insight for a number of research questions regarding issues of gender, age and status and will be addressed within the separate themes outlined below. Miscellaneous artefacts are central to the analysis of clothing, jewellery, toys, grooming, health and hygiene.

A total of 874 miscellaneous artefacts (1,143 fragments) were found at PS4. Whether artefacts came to be deposited in the various areas of the houses and yards depended on many factors including demolition and construction, the number of levels of the houses, as well as the activities of the residents and how conscientious the people were about keeping their homes and businesses clean. Domestic and commercial activities are evident in the number and variety of small objects that were lost or discarded by adults and children, both living and working in the buildings. Despite the limitations of a small assemblage there is still much information that can be gathered. What is missing from the artefacts can tell us as much about the residents as the artefacts that are present.

Clothing and Consumerism

Beads (315 MIC), buttons (130 MIC) and pins (141 MIC) are the most common artefact found across the site. All three of these artefacts would have been commonly used in homes before and during Victorian and Edwardian eras for sewing, repairing, and fastening. They are often circular or spherical and roll once dropped, are small so they fit in between gaps in the floorboards, easily accessible and often cheap. For these reasons when they are lost, they are replaced rather than recovered.

The clothing fasteners found at the site, mostly buttons and studs, secured and adorned inner and outer garments of adults and, although rarely, of children, of both genders. They were typical of those worn in the Victorian period with most being common plain sew-through types. A total of 130 buttons were found, 71 metal buttons, made with brass, copper alloy, iron or a mix of metals, 41 MoP, nine small chinas (porcelain), five glass and four bone.

The buttons showed little evidence of fashion, mostly functional metal, or Mother of Pearl buttons with a manufacture date of c.1850. The fashion of wearing black fastenings, and jewellery, began in 1861 when Queen Victoria wore black to mourn Prince Alberts death. However, only one black glass button was found. This suggests that the underfloor deposits, and the objects found within, predated the later houses.

Only ten smaller buttons, less than 11mm in diameter, which were used to fasten undergarments or babies, children's and sometimes dolls clothes, were found. This may be because the buttons came from the second-hand clothes and not from the residents of the house or that there were few children in the houses.

Metal buttons were mainly used to secure men's shirts and trousers with the larger types for jackets or coats. Only one of the nine buttons with legible marks can be identified as purchased in Sydney.

The one maritime/naval button suggest a naval connection, whether merchant or navy, or those fond of the sea or brought in on the second-hand clothes.

Very few (8 MIC) dress hook and eyes and corset fasteners, were found. The reasons for this may be the combination of the residents of the earlier houses, 119 and 121, making or repairing their own clothing and the use of tongue and groove floorboards in the later houses, 131-133. Although 141 pins were found, few other sewing paraphernalia was present suggesting that only the basic sewing was taking place.

Jewellery, Beads, and Accessories

A total of 24 items of jewellery were found on the PS4 site. They mainly comprised pieces specifically worn by women and girls including broken earrings, brooches, beaded necklaces, or bracelets, and a pendant. There are three inlays that could adorn men or women's jewellery or accessories.

The most numerous types of 'jewellery' at the site were beads. There are 311 beads across the site and all but two of them are made of glass. The glass beads were made using different techniques, some of which have been practiced since the Roman era. The earliest were wound around a wire and often had an irregular shape. Many of these are thought to have been made in Bohemia as well as Venice, Italy and were widely traded across the world especially to indigenous people in Africa, and North America (Eckstein & Firkins, 1987; Fletcher, 1984). These larger beads are likely to have been threaded on necklaces but could also have been part of rosaries or perhaps lamp decoration. Beads are usually regarded as jewellery mostly worn by women strung onto necklaces, bracelets, and earrings. However, throughout the Victorian period, when the houses were occupied, the smaller sized beads were commonly used to decorate dresses and other apparel, accessories such as bags, and a range of household furnishings including pillows and lamp shades (Clabburn, 1980; Wright, 1995). There were 250 small aqua blue beads found in the underfloor of House 131 Room 3. This quantity of the same style and colour of beads suggest it was a one-off event, perhaps a cache of beads dropped, or beads from one piece of jewellery.

Recreational

Pipes

The low number of pipes (62 MIC) across the whole site is surprising. Pipes were the main method of smoking tobacco before cigarettes became more widely available and popular in c.1900 (Gojak & Stuart, 1999:40). There was also Dixon and Son's Tobacco Manufactory and Engine House nearby. Most pipes were moulded from clay. Porcelain was the only other material found on site that was used for a mouthpiece on a composite pipe. As clay pipes were easily broken, displayed constantly changing styles, decoration and sometimes marks, they are an important resource for archaeological research and stratigraphic dating. Once broken, the small, fired clay fragments do not decay in the soil and withstand many types of post depositional movement and pressure (Gojak & Stuart, 1990:40). They are best recovered from deposits by wet sieving as was done for the underfloor deposits. The majority of the pipes (27 MIC) came from House 131, the area that was previously the side passage/yard of House 119, suggesting the smoking was not done in the house but rather outside. Of these pipes the majority came from Room 5-7, possibly the back area of Louisa Terrace.

The McKinley Tariff Act of 1890 ensured that most pipes coming to Australia made after that time were marked with the country of origin rather than the city (Palen, M. 2010). Some of the pipes from PS4 have the cities marked on the stem, but none of them have a country. This indicates all pipes were made and imported, if not local, before 1890.

Toys And Games

The toys from the site signify the presence of children. Of the 58 toys, there were 50 marbles. Marbles were extremely popular children's toys in the nineteenth and early twentieth centuries. Cheap marbles were made of plain clay while more elaborate and expensive varieties were coloured glass, semi-precious stone and painted porcelain. They were also collected for free from soft drink bottles that used glass marbles as stoppers. Limestone marbles were the most common type found at PS4 (33 MIC), likely because they are cheaper than the glass or porcelain marbles and less highly treasured. However, it may also suggest that the children that played with them came from a lower socio-economic background with more expensive marbles being financially unattainable. Most marbles, and in fact toys, in the early colonial years, were made in Germany until WWI stopped their export encouraging the local manufacture of toys. Where marbles are traditionally associated with boys, tea sets and dolls are traditionally girls' toys. If this view on gender and toys is used in the quantitative analysis it can be noted that 50 of the items were toys associated with boys and only four with girls.

The remaining toys consist of bone gaming pieces, one from each house, two fragments of porcelain dolls and two fragments of a white porcelain jug from a tea set. Many dolls continued to be owned by girls as they grew to womanhood, making it difficult to differentiate between the representation of girls' vs women. They could also be objects placed on display to be admired, like the ornaments and figurines found in the houses. The gaming pieces, small circular discs, could have been used by adults and children of both genders.

Clerical

Slate pencils made up the majority of the clerical artefacts with a total of 21 across the site. They are represented in each house, with no pencils found in the front of the buildings. Slate pencils were used by children to write lessons on slate boards in the classroom at school and Sunday School. They were replaced with more expensive lead pencils and paper in the 1930s and even as late as 1960s for some schools. Until that time lead pencils were more for use in the home, particularly by adults. Slate pencils and boards were also used by public houses and some businesses as a convenient way to keep notation. There were no slate boards found in PS4.

Health And Hygiene

There are only two items related to health and hygiene at PS4, including three false teeth, probably from a set. The teeth verify the historic records that Myer Mitchell, the secondhand goods dealer, who occupied House 131 from c.1907 sold second hand false teeth from 1914. The other object is a bone toothbrush. Toothbrushes, often made of bone, became increasingly common from the mid-nineteenth century, and are often found in archaeological assemblages in Sydney (Stocks, 2013:235).

Grooming

Few items (five MIC) associated with grooming were found at PS4, however artefacts that were recovered are made from ivory and bone and demonstrate a high class of style and possibly status. The faux tortoise shell comb would have cost more than a vulcanite comb and suggests the aspiration to a higher class.

The stratigraphy of the artefacts can tell us as much about the activities that occurred on the site as the artefacts themselves. The earlier c.1860s houses, 119 and 121, as one-storey buildings with butt floorboards, combining business and residential purposes, would have produced artefacts in their underfloor. The demolition of these houses, and the construction of the later c.1880s houses also impacted the number of artefacts found. Other factors to be considered are that the later houses 131, 133, and 135, were two or more storey buildings as well as being fitted with tongue and groove floorboards, reducing (if not eliminating) the number of items falling under the house. For these reasons it is not unsurprising that the north end of the site produced only eight miscellaneous artefacts. The remaining items came from the middle to the south end of the site associated with the four rooms from each of the later houses, the yards and sheds of the earlier houses as well as a small part of a back room from Louisa Terrace.

Overall, the miscellaneous artefacts suggest an early Victorian and Edwardian middle-class residents living on Bathurst Street.

6.10 Faunal analysis

Animal bone identification was undertaken with reference to modern comparative reference collections and faunal anatomy texts (Adams and Crabtree, 2008; Fillios and Blake, 2015; Schmid, 1972). All skeletal elements were separated into the following broad body part groups to facilitate analysis: Cranial (cranium, jaw, teeth), Extremities (phalanges), Forelimb (Scapula, Humerus, Ulna, Radius, Carpometacarpus and carpals), Hindlimb (Femur, Tibia, Fibula, Tarsometatarsus and tarsals), Pelvis (Acetabulum, Ilium, Ischium and Pubis) and Spine (Rib, vertebrae) with specific anatomical elements then recorded. Where elements were unable to be attributed to these categories but could be identified into broader groups these were recorded as either Irregular, Long or Flat bone. Recording these three categories still provides information where certain conclusions can be drawn regarding the presence of these elements.

To answer research questions, the following faunal assemblage attributes were identified and recorded.

- Taxonomic Identification. Individual specimens were identified to the most specific taxonomic level possible as determined by the morphological features observable.
- Skeletal Element. Each bone was identified to specific element where possible. Where fragments were unable to be identified to specific element then broad categories were used to classify them, Long bone, Irregular bone, and Flat bone.
- Modification. Surface modification of bone material was noted including butchery marks, burning, scavenger tooth marks, pathology, and any other distinguishing marks.
- Age. Epiphyseal fusion and suture marks were noted where possible to differentiate between adult and juvenile specimens in domesticated species.

- Specimen Count. The NISP count was used to identify the number of a specimens (a bone or tooth, or fragment thereof) within the assemblage. The MNI count is a derived unit and is used to identify the actual' number of individual animals on site calculated by using the NISP number.

The faunal analysis and assemblage cataloguing has been undertaken by AMBS Heritage Team Leader Lian Ramage under the direction of the Primary Excavation Director Jennie Lindbergh.

6.10.1 Limitations

Analysis of the excavated faunal assemblage is always subject to excavation and retrieval bias. Excavation techniques are determined by the feature in which the context is located. Where contexts have been 100% sieved the percentage of smaller faunal remains will be higher than those contexts not sieved. Therefore, over or under representation of smaller species across contexts is inevitable. 100% of the faunal remains were analysed. Identification was to species and element. Where species designation was not able to be determined beyond family or class these have been recorded as either small, medium, or large mammal where appropriate. Where element identification was not possible remains were recorded as either long bone, irregular bone, or flat bone. No differentiation was made between sheep and goat, these are two closely related taxa and typically diagnostic techniques have proved unreliable in differentiation (ZEDER; PILAAR, 2010). There are relatively new techniques available for postcranial identification however as this assemblage includes cranial elements unintentional bias may be introduced in the numbers of cranial elements attributed to sheep versus postcranial elements that can be differentiated (ZEDER; LAPHAM, 2010). Additionally, no distinction was made between rodent species.

6.10.2 Assemblage overview

A total of number of specimens (NISP) of 1206 (defined as a bone or tooth, or fragment thereof) were recovered and analysed from a total of 59 contexts from the excavations at PS4 The assemblage is dominated by domesticated species typically utilised for food purposes with unidentified medium mammal representing the largest category (31.34%) followed by Unidentified Fish (27.28%), Sheep (14.34%), Chicken (1.99%), Rabbit (1.99%), Cattle (1.41%), and Pig (1.00%) present. There is evidence of 'pet' animals within the assemblage with both dog (0.25%) and cat (0.17%) present (Table 6.42).

Where mammal bones were not able to be identified past family or skeletal element a distinction was made between small (2.40%), medium (31.34%) and large (0.33%) mammals and recorded as such. It is likely that the elements recorded as medium can be attributed to sheep or pig, as these are the only two identified medium mammal species present on site. Additionally, it is also likely the elements recorded as large can be attributed to cattle, again as this is the only large mammal identified in the assemblage.

The following section discusses the faunal assemblage from each house and will highlight specific contexts that have the potential to yield the greatest information pertaining to the occupation of the site. Skeletal element frequency and evidence of butchery has also been discussed.

Table 6.42 Species identified in the overall assemblage across PS4.

Domestic name	Scientific name	NISP total	NISP %
Cattle	*Bos taurus*	17	1.41%
Chicken/domestic fowl	*Gallus sp*	24	1.90%
Domestic cat	*Felis domesticus*	2	0.17%
Domestic dog	*Canis familiaris*	3	0.25%
Domestic pig	*Sus scrofa*	12	1.00%
Domestic rabbit	*Oryctolagus sp*	24	1.99%
Domestic sheep	*Ovis aries*	173	14.34%
Lrg mammal	N/A	4	0.33%
Med mammal	N/A	378	31.34%
Rodent	N/A	160	13.27%
Sm mammal	N/A	29	2.40%
Unidentifiable mammal	N/A	48	3.98%
Unidentifiable bird	N/A	3	0.25%
Unidentifiable fish	N/A	329	27.28%
Total	**N/A**	**1206**	**100.0%**

6.10.3 House 131

House 131 comprised a total of 279 faunal remains from 27 contexts. Of the main dietary species medium mammal comprised the largest category representing 25.45% of the assemblage in H131, followed by Unidentifiable Fish (24.37%), Sheep (12.90%), Rabbit (4.30%), Chicken (3.58%) Pig (2.15%) and Cattle (1.79%). Other animals identified in the assemblage included Rodent, Dog and unidentified Bird (Table 6.43). Of the dietary domesticates in the overall assemblage the skeletal frequencies observed in Sheep comprised approximately 45% forelimbs, 25% spinal elements and 16% hindlimb (Table 6.44). This represents domestic dietary refuse, whereby meat cuts from the fore and hindlimbs of a sheep are of a higher economic yield than those of the trunk and are typically more expensive. Pig and Cattle are more expensive than Sheep, this is reflected in the lower overall percentage of skeletal elements but also the higher percentage of elements from the trunk, which would be cheaper then fore and hindlimb cuts from these species. Observable butchery marks were consistent with domestic refuse with a low percentage of saw marks in comparison with chop and cut marks.

Table 6.43 Identified species in H131.

Species – common name	NISP total	NISP %
Unidentifiable bird	2	0.72%
Domestic dog	3	1.08%
Cattle	5	1.79%
Domestic pig	6	2.15%
Chicken	10	3.58%
Sm mammal	10	3.58%
Domestic rabbit	12	4.30%
Domestic sheep	36	12.90%
Rodent	56	20.07%
Unidentifiable fish	68	24.37%
Med mammal	71	25.45%
Total	**279**	**100.00%**

Table 6.44 Skeletal frequencies of major domesticates in H131.

Species – common name	NISP total	NISP %
Cattle		
Spine	5	100.00%
Cattle total	**5**	**4.24%**
Domestic pig		
Extremities	2	33.33%
Cranial	4	66.67%
Domestic pig total	**6**	**5.08%**
Domestic sheep		
Extremities	1	2.78%
Cranial	2	5.56%
Long bone	2	5.56%
Hindlimb	6	16.67%
Spine	9	25.00%
Forelimb	16	44.44%
Domestic sheep total	**36**	**30.51%**
Med mammal		
Forelimb	1	1.41%
Unidentifiable	5	7.04%
Long bone	20	28.17%
Spine	45	63.38%
Med mammal total	**71**	**60.17%**
Total	**118**	**100.00%**

Selected contexts

Context [1268], an underfloor deposit from room 4 contained the highest frequency of faunal remains in H131 with 69 bones (24.73% of the overall assemblage in H131). Species comprised unidentified Fish (59.42%), Rodent (10.14%), small mammal (10.14%), medium mammal (7.25%), Chicken (5.80%), Rabbit (4.35%) and Sheep (2.90%). The high number of smaller remains is consistent with an underfloor context, specifically a kitchen context whereby the large number of Rodent remains is typical where there is a buildup of refuse from intensive use. Skeletal frequency of the main dietary domesticates in this context (Sheep/medium mammal) comprised one femur, one humerus and five rib fragments. All showed evidence of butchery, with the rib fragments showing evidence of burning and cut marks and the long bones being either sawn or chopped.

Context [1283], a deposit located in room 4 beneath [1268] comprised 36 bones (12.90% of the overall assemblage in H131). Species comprised Rodent (47.22%), Rabbit (13.89%), medium mammal (13.89%), Pig (11.11%), Sheep (8.33%), Chicken (2.78%) and small mammal (2.78%). Again, the higher presence of Rodent is consistent with a deposit associated with a kitchen. It is likely that the small mammal remains represent either Rabbit or Rodent and the medium mammal remains are likely to be Sheep. Skeletal frequency of the dietary domesticates present in this context comprised five vertebrae fragments (including 1 x caudal vertebra), two long bones (1 x radius, 1 x unidentified), one humeral head, one tooth and one phalanx (both pig). The long bones showed evidence of chop and saw marks and one vertebra showed evidence of being sawn.

6.10.4 House 133

House 133 contained 838 faunal remains from 21 contexts. Of the dietary species Unidentified Fish comprised the largest category (30.67%), followed by medium mammal (30.07%), Sheep (15.87%), Rabbit (1.43%), Chicken (1.19%), Cattle (0.72%), Pig (0.72%) and large mammal (0.48%). The high frequency of skeletal remains not able to be identified to specific element is due to the fragmentary

nature of the assemblage. This does have implications on the interpretation of the skeletal frequencies from the medium mammal category. The faunal remains present a high frequency of irregular/spinal elements which is consistent with cuts from the trunk. It is likely that medium mammal remains represent Sheep as the species profiles evident across H133 and the site present Sheep as the highest percentage of dietary domesticate. While Pig and Cattle are also present on site they are in vastly lower quantities, as is typical in other colonial assemblages across Sydney in the late nineteenth and early twentieth century.

Table 6.45 Identified species in H133.

Species – common name	NISP total	NISP %
Domestic cat	2	0.24
Lrg mammal	4	0.48
Domestic pig	6	0.72
Cattle	6	0.72
Chicken	10	1.19
Domestic rabbit	12	1.43
Sm mammal	19	2.27
Unidentifiable	43	5.13
Rodent	94	11.22
Domestic sheep	133	15.87
Med mammal	252	30.07
Unidentifiable fish	257	30.67
Total	**838**	**100.00%**

Table 6.46 Skeletal frequencies of major domesticates in H133.

Species – common name	NISP total	NISP %
Lrg mammal		
Spine	1	25.00
Irregular bone	1	25.00
Long bone	2	50.00
Lrg mammal total	**4**	**1.00**
Domestic pig		
Hindlimb	1	16.67
Extremities	2	33.33
Cranial	3	50.00
Domestic pig total	**6**	**1.50**
Cattle		
Spine	1	16.67
Hindlimb	1	16.67
Irregular bone	4	66.67
Cattle total	**6**	**1.50**
Domestic sheep		
Cranial	2	1.50
Extremities	3	2.26
Pelvis	3	2.26
Long bone	10	7.52
Hindlimb	23	17.29
Spine	25	18.80
Forelimb	67	50.38
Domestic sheep total	**133**	**33.17**
Med mammal		
Flat bone	1	0.40
Unidentifiable	20	7.94
Long bone	43	17.06
Spine	51	20.24

Species – common name	NISP total	NISP %
Irregular bone	137	54.37
Med mammal total	**252**	**62.84**
Total	**401**	**100.00**

Context [1107], an underfloor deposit from room 4 contained 193 faunal remains, 23.03% of the overall assemblage in H133. Of the major dietary species medium mammal comprised 61.14 %, followed by Sheep with 17.62 %, Unidentified Fish at 7.77%, then Chicken, Rabbit, and Cattle all below 5%. It can be assumed the majority of medium mammal is represented by Sheep. The paucity of identified Pig in this assemblage is noteworthy although the presence of faunal remains is dependant on the preference of occupants and the processing of meat at the time. Pork was often preserved off the bone and as such consumption of pork products does not always show up in the archaeological record.

Context [1102], an underfloor deposit from room 5 comprised 576 faunal remains, 68.74 % of the overall assemblage in H133. Dietary species identified comprised Unidentified Fish at 42.01%, medium mammal with 18.23%, Sheep with 13.72%, followed by Rabbit, Cattle, Pig and Chicken. This assemblage is typical of a domestic kitchen deposit. Rodent appears at approximately 12% in the assemblage, rodents are frequently found in underfloor deposits associated with food waste. Sheep skeletal frequencies are similar to [1107] with leg cuts dominating followed by elements from the axial skeleton. Again, assuming medium mammal represents Sheep, these cuts are consistent with a higher economic yield and are therefore more expensive cuts of meat. Butchery patterns show a predominance of chop marks followed by cut marks made by either a knife or cleaver, demonstrating that some home butchery took place on site.

6.10.5 House 135

House 135 contained the smallest quantity of faunal remains with a total of 89 skeletal elements from 15 contexts. Identified dietary species included medium mammal (61.80%), Cattle (6.74%), Chicken (4.49%), Unidentified Fish (4.49%) and Sheep (4.49%). Again, it is likely that medium mammal represents Sheep, indicating similar species profiles to H131 and H133.

Context [1164], an underfloor deposit from room 4 contained 53 faunal remains (59.55% of the overall assemblage in H135). Medium mammal comprised the largest category with 69.81% followed by Rodent (15.09%), Unidentified Fish (7.55%), and Unidentified Bird and Chicken. Species profiles are consistent with H131 and H133.

6.10.6 Discussion

The assemblage represents a relatively small number compared to other contemporaneous sites from colonial Sydney however the site is a comparatively small site. The assemblage comprises typical dietary domesticates with skeletal elements representing meat cuts from a middle socio-economic status household. Whereby totalling the element counts for limbs (including fore/hindlimbs, long bones and limb) from medium mammal and Sheep presents a higher frequency than those from the trunk (again totalling medium mammal and Sheep counts for Spine/irregular elements). While Sheep is cheaper than the other major domesticates at this time cuts from the limb are of a higher economic yield than those from the trunk are therefore more expensive. This is representative of domestic dietary refuse typical of the latter half of the nineteenth century with frequencies of Sheep, Cattle and Pig corresponding to other colonial assemblages in Sydney (Fillios, 2014). Observed butchery marks are consistent with domestic use.

Whilst H131 and H133 were both at one time dining rooms/restaurant this was only for relatively short periods of time and is not reflected in the assemblage patterns observed. There would have been small private businesses that undertook collection of rubbish in Sydney in the 1890s which could explain the low number of faunal remains from the site.

6.11 Organic artefact analysis

Organic materials including animal i.e., leather, wool, silk (bone is catalogued separately) or plant i.e., wood (soft and hard), seeds, as well as fibres i.e., cotton, linen or materials used for textiles, paper, rope etc are less common on archaeological sites than other materials such as glass and ceramic due to the interaction between the materials and the surrounding environment. Environmental factors that impact artefacts include, but is not limited to, water, biological growth, oxygen, temperature, light and human action. (EH&O, Stabilising Stuff, 2012).

The identification of organics found was undertaken with reference to modern comparative reference collections and reports from previous archaeological investigations conducted. (Veres, 2005; Stocks, 2013; Stocks, 2018).

There was a total of 18 MIC (24 fragments) organic artefacts found across PS4. Two of these constituted food remains, four were fragments of leather, nine wooden fragments along with eight fragments of charcoal and one of coal (Table 6.47).

Table 6.47 Frequency of organic materials found across the site.

House	Context number	Material subclass	General function	Artefact type	MIC	Fragment
131	1223	Wood	Unidentified	Unidentified	1	1
	1444				1	1
	1465		Architectural		1	1
133	1102	Seed	Food	Peach	2	2
		Charcoal	Household	Charcoal	1	7
		Leather	Personal	Shoe	2	2
		Wood	Architectural	Unidentified	2	2
	1163	Charcoal	Household	Charcoal	1	1
135	1049	Wood	Architectural	Unidentified	2	2
			Unidentified	Unidentified	1	1
	1069	Wood	Architectural	window	1	1
	1113	Leather	Personal	Shoe	1	1
	1164				1	1
	1195	Coal	Household	Coal	1	1
Total					18	24

The food remains consisted of two peach seeds. The size of which provides some indication that the fruits themselves were small, however their precise species is unknown. While their condition varied, both appeared in House 133, [1102], the underfloor in the kitchen.

The four fragments of leather all show some signs of having been worked or used. One fragment ([1102]/#1666) bore square peg holes in a linear pattern that indicate they would have been attached to a firm sole with wooden pegs. (Rexford 2000: 274-276). The remaining fragments appear to have holes and working consistent with features of shoe foxing (Veres, 2005: 89-90). There is the possibility that these were offcuts or deliberately discarded, possibly during repairs, rather than decayed remains of a full shoe.

The wooden fragments that were found across the three houses are mostly indicative of architectural elements. The most definitive of these can be identified as a window frame with beaded edging found in House 135, Room 4 ([1069]/#661). Other analytical features present are predominantly flaked paint remnants. The wooden architectural elements found were primarily decorative as opposed to structural. The purpose of the remaining wooden elements is unidentified, though presumably similar as indicated by size and working.

6.12 Shell artefact analysis

Shell identification was undertaken with reference to modern comparative reference collections and common shells of New South Wales texts (Beechey, 2020; Colley, 2005; Iredale & McMichael, 1967; Robinson and Gibbs, 1982).

6.12.1 Distribution

The vast majority of shells were found in House 133, and most of these were located in contexts [1102] and [1107]. Context [1102] was assigned to the underfloor of Room 5 and contained 56.1% of total shells found. Context [1107] was assigned to the underfloor of Room 3 and contained 36.36% of total shells found.

Of the 1,312 total shells found on site, 1233 (93.98%) were from House 133. By contrast, 63 shells (4.8%) were found in House 131, and only 16 (1.22%) were found in House 135. No more than ten individual shell fragments (distinguished using NISP) were found in any context apart from [1002] and [1007] across the whole site.

Table 6.48 Sum of shell across the site by House and Room.

House	Room	MIC	MIC %	NISP	NISP %
131	2	3	0.41	3	0.23
	3	5	0.69	6	0.46
	4	10	1.38	16	1.22
	5/7	24	3.31	38	2.90
131 Total		42	5.78	63	4.80
133	1	4	0.55	5	0.38
	3/4	2	0.28	2	0.15
	4	236	32.46	477	36.36
	5	427	58.73	743	56.63
	6	4	0.55	6	0.46
133 Total		673	92.57	1233	93.98
135	3	5	0.69	9	0.69
	4	7	0.96	7	0.53
135 Total		12	1.65	16	1.22
Total		**727**	**100.%**	**1312**	**100.%**

6.12.2 Function

Most of the shells found across the site would have been used as food, as 93.83% were edible species (Colley 2005: 75). Most of these shells were Sydney Rock Oysters, along with limited quantities of Sydney cockles and mud oysters. Also present, though in less significant quantities, were intact mud oyster, and fragmentary scallop and egg shell.

Beyond this, there were some minor quantities of pipis, sea snails and whelks that may have been used as bait, or could have occurred incidentally due to human or animal interference. These shells

were inedible or unpalatable to humans and lack many significant practical applications (Attenbrow 1992: 15-16).

There were only few species of shell where function was somewhat ambiguous, and none of these shells were in major quantities. While sea urchin and black lip abalone are both edible, it's very likely that these shells were simply present due to human collection for decorative purposes (Colley 2005: 76).

The few cowries present would likely have been due to human collection for decorative purposes. While it is notable that certain varieties of cowry had been used as currency, there is little to suggest that occurred in Sydney at this point in time. It should be noted that cowries are typically over-represented in archaeological collections, as they are a favoured item to collect for decoration (Beechey, 2020; Colley 2000: 8).

Terrestrial land snails also appeared, which likely lived outdoors at the site. Few large, rounded, intact shells were also present (such as Triton shells), and thus were likely used for decorative purposes, or were deposited as fill (Colley 2005: 75-76). The presence of egg shell, presumed to be chicken egg, was found to be extremely fragmentary, and were also likely used as food.

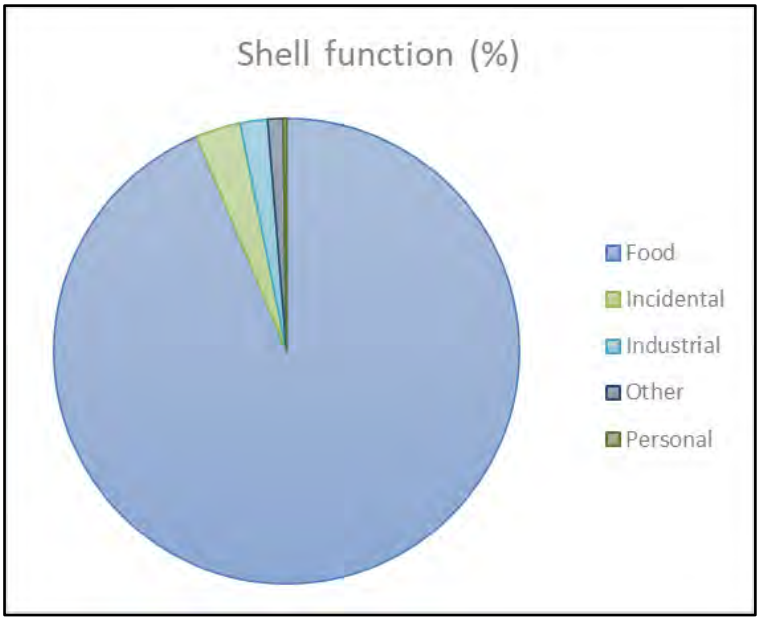

Figure 6.53 Comparative graph of Shell function across site.

6.12.3 Frequency

Of the 24 species found, Sydney Rock Oysters were dominant, representing nearly 90% of total shells on the site, both intact and broken with 86.36% Sydney Rock Oysters from House 133 alone. This indicates that these oysters comprised a significant portion of the diet of the inhabitants of House 133. By contrast, the numbers found elsewhere on site were negligible, with only 2.59% found at House 131, and less than 1% at House 135 (Table 6.49).

The frequency of shells skewed generally towards House 133, barring the Sydney Cockle, which were more present in House 131, and 3 scallop shell fragments found in House 135 alone. The vast

majority of shells found across the selection were edible. 93.83% of the total shells have been classified as food.

The species that appeared with most frequency after the Sydney Rock Oyster was the Sydney Cockle, where 25 total fragments were found, refined to a MNI of 18. Following this were Sea Urchin fragments which were extremely fragmentary, and terrestrial land snails.

The frequency with which Sydney Rock Oysters appeared, and the presence of mud oysters, at House 133 is possibly indicative of a higher socio-economic class than the houses either side (Colley 2005: 76). The appearance of these shells in the underfloor of Rooms 4 and 5 possibly indicates that these rooms were designated for food preparation and consumption.

Table 6.49 Frequency of species across the site.

Scientific name	Common name	MIC	MIC (%)	NISP	NISP (%)
Family glycymerididae	Bittersweet clam/dog cockle	8	1.10	9	0.69
Nerita atramentosa	Black nerite	5	0.69	5	0.38
Haliotis rubra	Black-lip abalone	1	0.14	1	0.08
Cypraea sp.	Cowry shell	2	0.28	2	0.15
Cerithiidae	Creeper shell	1	0.14	1	0.08
Nassarius sp.	Dog whelk	8	1.10	8	0.61
-	Egg shell	1	0.14	3	0.23
Pyrazus ebeninus	Hercules club whelk	2	0.28	2	0.15
Gastropoda	Land snail	10	1.38	14	1.07
Cellana sp.	Limpet	10	1.38	12	0.91
Ostrea angasi	Mud oyster/southern flat oyster	8	1.10	8	0.61
Donax sp.	Pipi	2	0.28	2	0.15
Austrocochlea sp.	Ribbed top/common periwinkle	7	0.96	7	0.53
Family cardiidae	Sand cockle	4	0.55	4	0.30
Family pectinidae	Scallop shell	3	0.41	3	0.23
Echinoidea	Sea urchin	4	0.55	14	1.07
Family patellidae rafinesque	Solid patellid limpet	3	0.41	3	0.23
Cabestana spengleri	Spengler's triton	3	0.41	3	0.23
Saccostrea glomerata	Sydney rock oyster	611	84.04	1,170	89.18
Cypraea tigris	Tiger cowry	1	0.14	1	0.08
Anadara trapezia	Trapezoid mud ark/sydney cockle	18	2.48	25	1.91
Trochus sp	Top shell	12	1.65	12	0.91
-	Unidentified	1	0.14	1	0.08
Velacumantus australis	Mud whelk	2	0.28	2	0.15
Total		**727**	**100%**	**1,312**	**100%**

6.13 Discussion

The Pitt Street South assemblage consists of 3,709 MIC (5,579 fragments) plus the 1,206 faunal remains and 1,312 shell recovered in PS4 (Table 6.50). The artefacts are associated with the three shops, with residences above, constructed in c.1882 (Houses 131, 133, and 135).

The paucity of artefacts can be contributed to the use of tongue and groove floorboards as well as the residential premises located on the upper floors.

Table 6.50 Total number of artefacts in PS4 by material and House.

Material (MIC/NISP)	House 131	House 133	House 135
BM (MIC)	33	42	20
Ceramic (MIC)	115	305	53
Glass (MIC)	166	243	77
Metal (MIC)	189	1,417	163
Miscellaneous (MIC)	423	414	37
Organic (MIC)	3	8	7
Total MIC	**929**	**2,429**	**357**
Faunal (NISP)	279	838	89
Shell (NISP)	63	1,233	16
Total NISP	**342**	**2,071**	**105**

House 131 has a total of 929 MIC and 342 NISP. The artefacts were concentrated in the rear rooms of the house and relate to the construction, occupation and demolition of the house. Although the front rooms of the lower floor were occupied by various commercial establishments, the kitchens at the rear of both House 131 and 133 would have served both the commercial and domestic occupation of the terrace. The porcelain and bone china tableware from House 131 demonstrate a high economic status and therefore more likely for residential use than for commercial utilisation.

It is hard to determine if some of the artefacts recovered from the house, including the high number of glass beads, buttons and the false teeth for example, relate to residents or were sold by the commercial second-hand goods dealer in the early twentieth century.

Evidence of recreational activities for children can be seen in the marbles found at the rear of the house. The lack of toys traditionally associated with girls has several deciding factors. Dolls, tea sets and ornaments, are less likely to be carried around in pockets, dropped and broken to roll into inaccessible areas. Their cost and accessibility could also account for the way they were kept, possibly even treasured compared with marbles for example. The intangible emotional attachment to dolls should also be taken into consideration. Therefore, although young females are not represented in the assemblage it does not indicate they are absent from the family.

House 131 had the majority of clay pipes in PS4, with most recovered from Rooms 5-7, which was previously a yard area and the back passage. This may denote that smoking was an activity away from the house. The lead sinker found implies fishing was an activity engaged in, however, the low number of fishbones compared to House 133, suggests it was a purely recreational activity or that the fish was boned elsewhere.

The artefacts from House 131 relate to the household residents with few informing on the various commercial businesses such as the grindery or the boot manufacturer.

House 133 has the highest number of artefacts with 2,429 MIC and 2,071 NISP. Many of the artefacts recovered from this house relate to industrial or commercial activities including locksmith equipment, files used for sharpening saws as well as equipment for their repairs. A high number of ceramic items were found in Room 5 of House 133, most dating post 1900 and possibly relating to the Paragon Café which was in business from 1896-1926. A bottle once containing Marshalls Giant Cement was also recovered suggesting repairs of these ceramics, maybe to keep the cost of replacement down.

The shell and faunal assemblages from House 133 are substantially larger than the two houses either side. A total of 93% of the shell was edible with a high percentage of Sydney Rock Oysters along with a small presence of mud oysters. Fish bones were also in high quantity. A small number of shells from inedible species, including pipes, whelks and sea snails were present. It is likely these were used as bait and possibly suggest that fishing was a popular and productive activity for one or more of the residents.

The miscellaneous assemblage from House 133 revealed slightly less artefacts than House 131 however it had the highest number of personal items including buttons, jewellery and grooming, either suggesting the importance of the resident's appearance or that these items were part of Jack Rapken, the pawnbroker's inventory, such as the presence of jewellery in the shop front (Room 1) would imply.

The assemblage from House 133 has a high number of artefacts relating to the various commercial activities, with only a few clearly informing on the household residents.

House 135 has the lowest number of artefacts, 357 MIC and 105 NISP. The majority of the artefacts relate to the construction and demolition of the house, dominated by brick and tile fragments and metal architectural items, with few artefacts pertaining to the commercial or the domestic activities.

The clay smoking pipes found were used and broken, likely by the residents rather than part of the inventory of the tobacconist business. The evidence for other recreational activities is seen in only two items, a broken fragment from a children's tea set and a marble.

Although small, the faunal assemblage is consistent with Houses 131 and 133, however the shells from this house represent human collection for decorative purposes as well as dietary choices. The pawn brokers, a long-term occupant of the commercial business, influences the interpretation of the artefacts found, questioning the personal items, such as clothing items and jewellery, which traditionally inform on the style, status, gender and age of the occupants. It is unclear if these items once belonged to the residents of the house or if they were brought into the premises for financial gain.

The few artefacts that reveal any information on the residents of House 135, suggest a family or families consisting of women and men with only a small number of artefacts that indicate children were present.

The artefact assemblage from the three houses inform on the commercial and domestic occupancy of the three buildings that make up PS4. The artefacts confirm the textual history of the commercial businesses and provide us with a very small glance into the status, gender and age of the later occupancy of the site, from c.1882.

7 Response to the research framework

The 2018 AMS developed by AMBS in reference to the 2016 ARD prepared by Artefact identified the following research questions which allowed for the formulation of the research framework from which the archaeological excavations were undertaken with the aim to address substantive research themes.

Landscape & environmental archaeology

- *Is there surviving evidence of the early local landscape and environment, such as early soils, fossil pollens and seeds?*
- *Is there evidence of early land-use practices including land clearance methodologies, such as was recovered from the 209 Castlereagh Street site and what can this evidence tell us about the modification of the original landscape?*

Residential housing, commercial premises and material culture

- *What can the construction techniques, size, layout and form of the 1820s, 1830s, 1840s and 1850s houses, shops and commercial enterprises tell us regarding the period of use and areas of activity? How were buildings modified over time and how does this reflect changes of use?*
- *What can intact occupation deposits tell us about settlement patterns, and domestic and commercial practices of an early developing urban environment? What are the patterns of subsistence and self-reliance and how do they inform us about this local environment and adaptation to it?*
- *What can the contents of occupation deposits from beneath floors, cesspits, rubbish pits and wells/cisterns (if present) tell us about the daily lives and domestic and commercial practices of the occupants of houses, shops and businesses. How does this compare with artefact assemblages from the nearby similar sites, that may not be available from other sources?*
- *What can the artefact assemblages tell us about the minutiae of everyday life of the domestic and commercial development of this local area? and of this local community? What do the artefact assemblages from houses and shops tell us about population densities, occupations, class and gender?*
- *Do the artefact assemblages indicate social interaction with neighbours in the local area?*
- *What similarities and differences can be discerned between the artefact assemblages from PS1, PS3 and PS4, the 209 Castlereagh Street, No 1 Firestation and 101 Bathurst Street sites and what does this tell us about social standing, economic or employment differences within these sites?*

The research questions informed the procedure for recording the archaeological resource uncovered during excavations, the recovery and analysis of artefacts and provided a framework for the excavation. The following responds to the research questions; however, the format is a more broad-based themed response that explores the how the archaeology and associated artefacts provide an insight into the history of the site.

The Pitt Street station site was on the fringe of the British settlement of Sydney in the early 1800s with Pitt Street (Pitt Row) originally terminating at Bathurst Street. The site was part of a large area that had been cleared for common purposes including grazing animals, gathering of firewood and

later for horseracing, sports, and recreation. The predicted archaeological resources in PS1 were removed historically during the construction of Druids House (originally Welsbach House constructed in 1903) whereby the construction removed soils down to C horizon clays. Similarly, PS3 did not reveal the predicted archaeological resources, the construction of the Edinburgh Castle Hotel and a basement associated with the construction of Vauxhall House in 1905, which occupied approximately two-thirds of PS3, removed all evidence of early occupation of this area of the station site. PS4 comprised the most intact archaeological evidence. The c.1882 three storey Victorian Italianate style terrace was demolished for the construction of the Pitt Street South station works and as such it is not surprising that the foundations were largely intact. In contrast to the archaeological excavations at 209 Castlereagh Street there was no remaining evidence of land clearing or landscape modification prior to construction of the early cottages on the site. Remnant A2 and B horizons was revealed in the western half of House 131 Rooms 1 and 2 and the yard area (Room 5-7) respectively, the cellar in Rooms 1 and 2 of House 135 revealed the C horizon clays. These soils were homogeneous and did not present any indication of tree or shrub clearing/burning or levelling of the site. Generally, the soil profiles were consistent with those observed from surrounding excavations, the archaeological remains associated with the early nineteenth century revealed within the footprint of House 131 were cut directly into the remnant A2 horizon.

The reconfiguration of the c.1882 terrace was evident with House 133 and 135 presenting the most changes. The configuration of Rooms 1 and 2 of all three properties seem to have largely remained the same whilst the former kitchens have been reconfigured in House 133 and 135. Originally the kitchens would have been accessed via a back passage, as is seen in the foundations of House 131, however the back passage of House 133 and 135 has been enclosed and likely the kitchens enlarged. Remnant sandstone foundations for the northern most smaller structures at the back of the properties are evident, later concrete and dry pressed brick foundations have been constructed either over the top or abutting these earlier foundations at the back of House 133 and 135. House 135 comprised a large double cellar that had been filled in prior to demolition of the terrace. An open drain cut into the clay located in the base of the cellar contained a pipe stem fragment dating to c.1856 – c.1924, and a bottle dump associated with the drain contained handmade bottles all manufactured pre-1920. It is likely the cellar was filled in at the same time as the internal layout was changed sometime post 1920. Large CEW and PVC services were found throughout Rooms 1, 2, 3 and 4 of House 133 and a large fiberglass sump in room 2 and two smaller dry pressed brick sumps in Room 3, are evidence of former use as a restaurant from 1896 to 1927. The archaeological structural remains associated with the c.1882 terrace represent a long history of occupation and commercial use, the enclosure of the rear yards, the additions of services and sumps and change in use of the rooms coincide with the documented history of the terraces with multiple occupancies and commercial activities. The artefacts associated with this phase of use of the site also correspond to the commercial activities. The assemblage from House 133 comprised artefacts associated with an iron monger and locksmith, such as files for sharpening saws and their repair and a high number of ceramic items were collected, most post-dating 1900 which relates to the period of use of House 133 from 1869 – 1926 as the Paragon Café.

Evidence of pre 1882 structures were revealed in the form of one trench running north south through Rooms 1 and 2 of House 131 with a return along the northern boundary of room 1 in houses 131 and 133. The trench contained remnant footings in the form of degraded pink sandstone and sandstock bricks and was truncated by the c.1882 footings. The c.1826 brick building configuration is situated addressing Bathurst Street with a side passage allowing access to

the brick tenement building located at the back of the lot (Figure 3.14). An 1831 sketch indicates that the brick building addressing Bathurst Street has either been replaced or extended to the south, now described as a brick, and shingled six room cottage and tenement dwelling (Figure 3.15). By 1865 (likely c.1848) this cottage has been replaced with two shops addressing Bathurst Street with verandas (Figure 3.16). This early trench likely represents the c.1832 cottage as the north south alignment seems to coincide with the approximate dimensions of the 1832 plan. The eastern return of the trench follows the boundary of the lot along Bathurst Street, as does the 1832 cottage whereas the c.1848 structures have a veranda addressing Bathurst Street and it is unlikely that the veranda was constructed using sandstone footings. Potential evidence of the shed, indicated on the 1880 Plan (Figure 3.8) that abutted the c.1848 building (then numbered 119 Bathurst Street) was revealed within the footprint of Room 3 of House 131 in the form of eight post holes cut into the natural B horizon. The post holes appeared to run roughly in two parallel rows east to west and roughly align with the location of the shed.

Evidence of the tenement buildings was limited to discrete structural elements with limited artefactual material. A trench with post holes, a sandstock cess pit/WC and a brick pit are all that remained. The brick pit represents the changing configuration of the lot in the late 1880s with the demolition of the two tenements and the c.1848 shops to make way for the c.1882 terrace. The bricks within the pit were small sandstock bricks, with clear strike marks with mud mortar still adhered, and no frog evident. This contrasts with the brick remains of Louisa Terrace excavated at 209 Castlereagh and the No. 1 Fire station whereby they all comprised a rectangular frog. The bricks from the brick pit can be dated to c.1788 – c.1850, documentary evidence suggests the tenements were built c.1826. Excavations at No1 fire station revealed evidence of a c.1822 building, predating Lousia Terrace; the bricks were small, red sandstock set in a mud mortar. This evidence could indicate that the two tenements located in PS4, first seen in E. Knapps 1826 plan (Figure 3.14) and initially thought to have been demolished and replaced in c.1832 as seen in Hallen's sketch plan (Figure 3.15), actually predate Louisa Terrace and therefore were not a continuation of Louisa Terrace, constructed on the lot adjacent to PS4, as first surmised.

The post holes and trench revealed in the yard of House 131 (rooms 5-7) reflected the alignment of the wooden addition of the two tenement buildings, as seen in the 1865 Trigonometric survey plan (Figure 3.7). Four fragments of ceramic were associated with the trench, one teacup fragment has a manufacture date of 1805 – 1833. The packing bricks located in the post holes were well made small sandstock bricks with mud mortar and no frogs, dating the construction of the wooden addition to the early to mid-1800s. The different construction materials used in the tenements in PS4 to those of Lousia Terrace suggest different builders/teams were working in the local area, using local bricks from different suppliers from Brickfield Hill located close by. The date of the artefacts associated with the trench confirm the early date of construction.

The cesspit/WC was constructed of unfrogged sandstock bricks, similar to those used in the construction of the tenement buildings. The western wall of the cess pit/WC was capped by the sandstone footings of the c.1882 building suggesting that the cess pit/WC was closed/infilled by c.1882 when all previous structures on site were demolished for the construction of the Victorian Italianate style terrace. The archaeological evidence suggests the cess pit/WC was used from the early 1800s through to c.1882. The installation of a CEW service pipe within the top section of the north-east corner of the cess pit/WC, with the wall being rebuilt around the pipe demonstrates the upgrading from a simple cess pit to a WC, likely to cater for more occupants of the site and as such its continued use. The fill was redeposited natural clay which contained a small number of

ceramics, glass, metal, bone, and shell artefact fragments; one pipe with a manufacturing period of c.1820 – c.1865, handmade glassware dating to pre-1920, and a phial with a cup bottom mould dating to post 1850. A brick oviform sewer was laid along Bathurst Street in 1857, evidence from the 209 Castlereagh Street excavations show that the Bathurst St terrace 141-145 were connected during construction in 1860, it's likely the cess pit in PS4 was converted into a WC around this time.

The varying configuration of the early 1880s structures and the later c.1882 terrace on site reflect the changing occupancy of PS4 in a rapidly emerging cosmopolitan and prosperous town. Evidence of the first structures addressing Bathurst Street, constructed using sandstone foundations present a larger, more substantial building than those of the tenement buildings located at the rear of the lot. The archaeological structural evidence for this early phase suggests the occupancy of the building fronting Bathurst Street was perhaps of persons of a relatively high economic status, merchants, or gentlemen potentially with families. Whereby the much smaller tenements at the rear of the site were occupied by a number of tradespeople and their families. These tenements were constructed at a time where speculative building had become very prosperous, representing the demand for more housing in the emerging town and the response by local landowners to capitalise on this increase in population.

The majority of the artefact assemblage from the PS4 site relates to the later occupancy of the site, from c.1882. The early phase was entirely represented by structural remains. The WC contained a small assemblage however as the cess pit was converted into a WC at some point the artefacts from within the relatively sterile fill do not necessarily present evidence of the use of the WC by the occupants of the site. Although it is likely the fill was from soils either from the site or close by it is not certain.

Occupation deposits from the site were represented by underfloor deposits from the c.1882 terrace, mainly associated with the kitchens and hearths with some discrete deposits remaining in other rooms in the terraces. The ground floors of the terraces were mainly utilised as commercial premises. The artefact assemblage from the underfloor deposits reflects the commercial practices within the terraces with evidence from almost all phases of commercial activity represented. The kitchens would have served both the commercial and domestic occupation of the terrace where both houses 131 and 133 were dining rooms/café at differing times during the occupancy of the terrace. The faunal and shell assemblages from House 133 were substantially larger, reflecting the longer period of use as the Paragon Café. The presence of Sydney Rock Oysters and Mud Oysters suggests this was a typical food consumed on the premises, as was typical in Sydney in the 1880s. Evidence of the second-hand dealer is present with the largest assemblage of beads, buttons, pins, other clothing paraphernalia and false teeth. Myer Mitchell, the occupant in 1914 advertised the sale of second-hand false teeth.

The archaeological remains present evidence of families living on site with artefacts associated with men, women, and children, although the assemblage associated with children is small and limited to marbles. This reflects the use of the ground floors as mainly commercial in nature. The assemblage generally presents as one of a middle-class occupancy whereby families occupied the terrace with their commercial business occupying the ground floors and likely domestic residency of the top floors. The assemblage generally relates to the commercial nature of the site and indicates the middleclass nature of the business' occupying the terraces from the late 1800s. The commercial nature of the assemblage reflects the changing local community whereby more middle to low socio-economic classes of people were moving into the area where work was available and

the increase in affordable housing such as the tenements located on PS4 allowed them to live and work in the town. Local businesses respond to the needs of the local population, such as second-hand dealers, pawn shops and restaurants serving Oysters, which typically catered for the middle to lower socio-economic classes.

8 Re-evaluation of archaeological significance

The physical evidence of past activities is a valuable resource that is embodied in the fabric, setting, history and broader environment of an item, place or archaeological site. 'Cultural heritage significance' and 'heritage value' are terms used to express the tangible and intangible values of an item, place or archaeological site, and the response that it evokes in the community. The significance of the Pit Street South station site was assessed as having the potential to contain archaeological resources that would contribute to an understanding of the early urban settlement of Sydney.

8.1 Previous statement of archaeological significance

The archaeological resource in PS1, PS3 and PS4 of the southern entry to Pitt Street Station has the potential to provide information that will contribute to a greater understanding of the historical development of phases of occupation from the 1820s of a small but developing community. Evidence of the processes of landscape modifications prior to the construction of housing in the 1820s may include the remains of burnt-out trees which would contribute to an understanding of the original landscape and vegetation.

Physical evidence of houses, shops and a monumental mason's workshop, as well as artefact assemblages from underfloor deposits, cesspits, wells/cisterns and rubbish pits have the potential to provide an insight into population densities, occupations, class, gender and social interactions. Evidence from the archaeological resource of the PS1 and PS4 sites, such as personal and domestic artefacts and masons' tools, has the potential to be compared with the assemblages from sites within the local vicinity and beyond, to contribute to addressing research questions relating to urbanisation, material culture, consumerism, identity, and social interactions within this local vicinity. In addition, comparison of the artefact assemblages from the tenements in PS1 and PS4 would provide an insight into local living and working conditions from the 1830s.

The archaeological resource within the PS1, PS3 and PS4 is likely to have a high level of research potential and well-preserved substantive archaeological remains of the 1820s would have state significance (AMBS, 2018).

8.2 Revised assessment of significance

An item will be of local (or State) significance if, in the opinion of the Heritage Council of NSW, it meets one or more of the seven SHR criteria. The following reassess the previously identified significance of the Pitt Street South station site based on the physical remains exposed during excavations.

Criterion (a) Historic significance. An item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area).

The realised archaeological remains from the Pit Street Station site were limited to PS4 and comprised extensive structural remains and a comparatively small artefact assemblage associated with the c.1882 terrace and minimal structural remains associated with early nineteenth century occupation.

The structural remains demonstrate a changing urban environment and settlement patterns from residential housing in the early nineteenth century to mixed use domestic and commercial premises of the late nineteenth century. The structural remains also demonstrate changing demographics of the local area whereby the limited structural remains relating to the early nineteenth century represent different construction techniques of the cottages and tenements for differing social classes of people.

Minimal artefactual material was found relating to the early nineteenth century use of the site and the assemblage comprises almost exclusively artefacts from the c.1882 – c.2018 occupation of the Victorian Italianate terrace.

The archaeological remains, limited to structural remains for the early nineteenth century occupation of the site, and both structural and artefactual for the c.1882 – c.2018 occupation provide information that is pertinent to the pattern of cultural significance of the local area and therefore has significance at a local level.

Criterion (b) Historical association. An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area).

The archaeological remains were limited to PS4, no evidence survived of the monumental mason and sculpture workshop, or evidence of any kind relating to William Patten in PS1. As such the archaeological remains from the Pitt Street South station site do not meet this criterion at either a state or local level.

Criterion (c) Aesthetic/creative/technical achievement. An item is important in demonstrating aesthetic characteristics and/ or a high degree of creative or technical achievement in NSW (or the local area).

The archaeological evidence for the later c.1882 terrace does not present any aesthetic characteristics or degree of creative or technical achievement that is not seen in other extant late 1880s terraces in Sydney. The terrace was one of many built at a similar time in the local area and was extant until the early c.2018. No archaeological remains were revealed in PS1 or PS3. As such, the resources do not meet significance at either a state or local level under this criterion.

Criterion (d) Social, cultural, and spiritual. An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural, or spiritual reasons.

While no consultation has been undertaken with the local community in relation to the values of the archaeology, it is acknowledged that local communities are interested in the archaeology of their local area and its development.

It is likely that if the public are made aware of the site archaeology through the media community appreciation of the physical remains of their past will engender considerable interest.

Criterion (e) Research potential. An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area).

The c.1882 terrace buildings were represented by structural remains and artefacts, mostly associated with underfloor deposits from the kitchens.

Physical evidence of the early nineteenth century occupation of the site were restricted to PS4 in the form of minimal structural elements associated with the c.1832 building fronting Bathurst Street and the c.1826 tenements. However, the physical remains demonstrated that the tenement building was earlier than indicated from previous excavations undertaken at 209 Castlereagh Street and No 1 Fire Station. Minimal fragmentary artefactual material was associated with either of these structures and as such the archaeological remains do not meet the threshold for either state or local significance under this criterion.

Criterion (f) Rare. An item possesses uncommon, rare, or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area).

The archaeology and artefact assemblage were limited to the remains of the later nineteenth century terrace, with minimal evidence from the early nineteenth century. No resources from PS1 or PS3 were revealed. The remains associated with the c.1882 terrace is not a rare resource in the local area or wider region of NSW. Extant resources are relatively common dating to similar period with a similar occupation history and are well documented in the historical record. As such the archaeological remains do not meet the threshold for significance at either a state or local level under this criterion.

Criterion (g) Representative. An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places; or cultural or natural environments (or a class of the local area's cultural or natural places; or cultural or natural environments).

The resources associated with the c.1882 terrace is a representative example of a Victorian Italianate terrace, which is not rare within a local context. There is documentary evidence of the terrace, its occupation history and commercial activities. The remains associated with the early nineteenth century occupation of the site were restricted to minimal structural elements that do not provide enough evidence to answer this criterion. Therefore, the archaeological resources do not meet the threshold for significance at either a state or local level under this criterion.

8.2.1 Revised statement of significance

The archaeological resources excavated from the Pitt Street South station site were limited to remains within PS4. Remains of the early nineteenth century occupation were limited to minimal structural elements associated with the c.1832 residential building fronting Bathurst Street and the c.1826 tenements at the back of the lot. No artefacts were associated with this phase of occupation. At most these remains can help us to understand the early development, settlement patterns and the changing use of the site and local area. Whereby evidence that the tenements located at the rear of the property predate Louisa Terrace, located on the lots adjacent, and likely represent some of the earliest tenement housing in the local area. However, as these remains were limited to a brick pit and post holes no further assertations can be made regarding this phase of occupation. Structural archaeological resources associated with the c.1882 terraces were relatively

intact, although the artefact assemblage was comparatively small, it confirmed the historical documentation pertaining to the terrace. The Pit Street South station site, specifically the PS4 area meets the threshold for significance at a local level.

9 Conclusion

The archaeological excavations at the Pitt Street South station site revealed the remains of the c.1882 Victorian Italianate terrace with a small artefact assemblage associated with these remains and minimal structural remains associated with the c.1832 building fronting Bathurst Street and the c.1826 tenements at the back of the lot. The structural remains of the tenement building provided evidence of the early construction of the building, likely predating Lousia Terrace. The trench associated with the c.1832 cottage provides evidence the cottage was constructed using sandstone foundations. The archaeological resource demonstrates early settlement patterns of the local area and a response to the rapid growth of Sydney during the early years of settlement. No further assertations can be made regarding the early occupation of the site due to a lack of archaeological evidence. The archaeological structural remains of the c.1882 terrace provides evidence of a long history of commercial occupation with continued reconfiguration of the individual terraces in response to the changing commercial businesses. The artefactual evidence affirms the documented history of the terrace with the assemblage representing the different commercial activities and provides some evidence of the residents living and working on site, with occupation of the site from the 1880s of middle-class families providing services for the middle to low socioeconomic local community.

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Appendices

Appendix A Digitised site plans and register

This appendix has been redacted and/or removed due to sensitive information.

Appendix B Context register

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Appendix C Photo register

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Appendix D Artefact catalogue

- ***Common Abbreviations***
- ***Building Materials***
- ***Ceramic***
- ***Faunal***
- ***Glass***
- ***Miscellaneous***
- ***Organic***
- ***Shell***

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Appendix E Harris matrices

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