5. Artefact Overview

5.1 Background

Collected from the historical archaeological investigations at the Blues Point Station site are 4560 artefact fragments representing 6179 minimum items (MIC), 1132 NISP faunal remains, and 543 NISP shell remains (254 MNI).[1] A team of material culture specialists conducted artefact cataloguing and analyses with expertise in eight artefact categories (Table 5.1). The specialist reports for each artefact category are presented in Volume 2: Subsidiary Reports. The artefact catalogues prepared by each specialist are reproduced in Volume 4. This overview draws upon those reports and the synthesis of the data to present the following characterisation of the artefact collection, including observations and analysis related to each specific artefact category.

The specialists catalogued the artefacts using the cataloguing system developed by Dr Mary Casey in consultation with the various specialists. The main elements of this cataloguing system are the use of minimum item counts (MIC) to quantify the assemblages and the attribution of functional categories to the artefacts during cataloguing. The former (MIC) were calculated for fragmented items during cataloguing, and MICs are used throughout this analysis so that counts used in the following discussion represent whole, partial and fragmented items. Artefacts must be quantified in such a way as to facilitate functional and temporal analyses. Furthermore, it is an essential requirement when comparing data from this study with contemporary archaeological sites. Typically, the latter (function) contributes to understanding how the artefacts related to the daily lives of a site's occupants during different phases of site development.

Table 5.1: Quantitative Data for Artefact Categories.

Artefact Category	Specialist	Fragments	MIC/Items
Building Materials	Dr G.P. Marriner	99	42
Ceramic	Dr Jeanne Harris	858	474
Glass	Dr Jeanne Harris	1173	520
Metal	Catherine Munro	337	979
Miscellaneous	Jane Rooke	2093	4164
TOTAL		**4560**	**6179**
Faunal Remains	Dr James Roberts	1129 NISP	N/A
Remains – Human	Denise Donlon	3	3
Shell	Dr Melissa Gibbs	543	220 MNI

[1] MIC = minimum item count; NISP = number of individual specimens; MNI = minimum number of individuals

5.1.1 FORMATTING AND CONVENTIONS

Standard context analysis generally involves examining contexts for both functional and temporal data that contribute to the interpretation of the site. For clarity of presentation, the following conventions have been observed while writing analysis results:

- Artefact quantities and teeth represent minimum item counts (MIC).
- Faunal remains bone are quantified by fragments or number of individual specimens (NISP)
- Faunal remains shell are quantified by NISP and minimum number of individuals (MNI)
- All artefact quantities are represented as numerals.
- All relative frequencies are designated by "%".
- Context numbers are represented in brackets "( )".

Throughout this report, the general term 'artefacts' refers to all artefact categories and excludes faunal remains (bone and shell) only where separate artefact categories are analysed and discussed. The structure of this overview follows the format set out in Section 4.0. The discussion is principally organised by Phase of site development and then Area. Phases used throughout this overview are identified and described in Section 3.3, and a list of Phases is shown in Table 3.1. Each Phase discussion is ordered by Area, deposit type and/or feature, and temporal and functional analysis contributes to the interpretation of the Phase, Area, deposits and features.

5.2 OVERVIEW OF ASSEMBLAGE

The catalogue of artefacts (6179 MIC) provided data on shape, function (general and specific use), material, manufacture, description, completeness, joins, producer/distributor, manufacturer, reuse, and date range. Each record included data on fragment counts and minimum item counts (MIC). Standard measurements (length, width, diameter, thickness and dimensions) were recorded when such available data contributed to the interpretation of the artefact. Type series were established for select artefact categories and shapes (bottles, beads, buttons, locally-made pottery, marbles, thimbles, nails and building materials) and this data aided in the interpretation of these items.

Faunal remains (bone and shell) were catalogued separately, using specialised categories standardly used for recording data on these artefact types. Where possible, the bone artefacts assigned taxa and skeletal elements, as and all surface modifications (butchery, burning, pathology, animal gnawing, etc.) were recorded. The bone that was not identifiable to species or genus was assigned to a size class and more general taxonomic class (e.g., Large Mammal, Small Reptile etc.). Where possible, the shell remains were classified to the genus and species level. This overview discusses the artefacts recovered from each Phase of site development (Table 5.2).

Table 5.2: Quantitative data for artefacts (MIC/NISP/MNI) by Phase and Area.

Phase	Area	Architectural	Ceramic	Glass	Metal	Miscellaneous	Organic	Bone NISP	Shell MNI	Total
-	A	-	6	4	-	6	-	1	1	18
3	A	-	23	11	33	16	-	49	36	168
4	A	3	10	-	-	-	-	-	-	13
4.1	A	8	119	86	36	67	-	66	22	404
4.2	A	5	90	69	10	9	-	42	10	235
4.2	B	1	-	5	-	-	-	-	-	6
5	**A**	**14**	**43**	**185**	**792**	**4016**	**4**	**906**	**144**	**6104**
5	B	-	48	25	27	6	-	42	-	148
6	A	5	36	32	40	27	-	8	4	152
7	A	2	50	36	17	14	-	5	1	125
7	B	4	49	67	24	3	-	10	2	159
	TOTAL	**42**	**474**	**520**	**979**	**4164**	**4**	**1129**	**220**	**7532**

5.2.1 CHARACTERISATION OF THE ARTEFACT DEPOSITS

The site consisted of three defined areas – Area A, Area B and Area C (Figure 1.4). Only Area A and Area B were subject to the excavations discussed in this report. Area C was only subject to limited testing and were no artefacts recovered from the testing.

A total of 6179 MIC, 1129 NISP (bone) and 220 MNI (shell) artefacts were recovered from 67 contexts associated with six Phases of site development (Phases 3, 4.1, 4.2, 5, 6 and 7) within the two site Areas. Approximately 5% of the collection (321 MIC) was assigned to seven localised cleanup events across the site ((001), (025), (038), (062), (085), (301), (323)) and given the subjective nature of such a recovery methodology, only general statements on analysis could be achieved for these contexts. Approximately 90% of artefacts (5556 MIC) were recovered from deposits associated with one of the site's three houses with 81% recovered from underfloor deposits. Demolition deposits associated with the houses represent 1.1% of the artefact collection. Approximately 1.3% of the artefact bearing deposits resulted from secondary deposition levelling fills; fill brought into the site or redeposited fill from within the site, rather than the purposeful deposition of artefacts directly associated with residents, such as at a house.

5.3 METHODOLOGY

5.3.1 Chronology and Typologies

Standard typologies were established for artefacts as a prelude to functional classification and chronological reconstruction. For each material type, typologies are established using various criteria, including technological advancements, use-popularity patterns, and changes in manufacturing techniques. Below are overviews of established typologies for major artefact categories, each having unique histories and typological development.

5.3.1.1 GLASS

Glass artefacts were then principally assigned dates based on technological advancements (patents and manufacturer's records). Since manufacturing techniques differ for specific glass artefact types such as window glass, bottles and tableware, separate technologies were documented for each type. Temporal information for manufacturing techniques is derived, for the most part, from several key references, including Boow's *Early Australian Commercial Glass: Manufacturing Processes*, *The Parks Canada Glass Glossary and Cylindrical English Wine & Beer Bottles 1735 –1850*.[2] Documented manufacturer and/or product information also contribute to chronological data. The documented temporal data for bottle manufacturers and product manufacturers narrow a bottle's sometimes broad technological date ranges. For some glass artefact types, such as tableware, use-popularity date ranges (merchant records, advertisements and manufacturers' records) were also instrumental in assigning temporal placement. Also, the implementation of differing excise taxes affected the manufacturing processes, which is reflected in the moulds types used for bottles and glass composition (the metal) of bottles and tableware.

5.3.1.2 CERAMIC

The typology for ceramic artefacts were based on technological advancements (patents and manufacturer's records) and use-popularity date ranges (merchant records, advertisements and manufacturer's records). Ceramic use-popularity patterns for tableware reflect times when ceramic wares, types, and/or decorative designs accomplished peak popularity in the consumer market. These patterns are expressed as date ranges and are established through researched merchant's and manufacturer's records.

Identification/dating of nineteenth-century ceramics is also based on identifying gradual changes in paste (the body material) and glaze to accommodate shifting trends in the ceramic market – commonly termed the 'ware'. The value of this analytical approach is the dating of ceramic artefacts, particularly refined white-bodied earthenware, in the absence of datable decorative design techniques. Gradual changes occurred in decorative designs, design techniques, and pattern series on differing nineteenth-century ware types provide a chronology for dating decorated wares. Changes in ware type and decorative designs did not necessarily coincide. Therefore, a combined date range was established that considered all of these variables.

5.3.1.3 METAL

The majority of metal artefacts are associated with boat building. Standard typologies for associate artefact types is based on technological advancements in manufacturing technologies and changes in construction techniques, which are documented in standard references, such as *The Engineers' and Mechanics' Cyclopedia* and *Fastenings from sewn*

[2] Boow 1991; Jones et al. 1985

boat to steamship.[3] Architectural fasteners are also prominent in the assemblage and established typologies for nails, spikes and bolts, such as those detailed by *Varman's Bricks and Nails – Building materials as criteria for dating in Sydney environs from 1788* facilitated the classification and dating of these construction fasteners.[4]

5.3.1.4 ORGANIC

Several different organic artefact types are included in the artefact collection, including plant remains (seeds, pits and nuts), timber items (planks, dowels, pegs, offcuts and barrel parts) and worked leather goods (footwear, belts and straps). Footwear is the principal group of organic artifacts with a documented history for technological advancements and a researched timeline of stylistic changes in shoe types.

5.3.1.5 FAUNAL REMAINS (BONE)

Taxa and skeletal element recorded bone identification. Taxonomic identification of remains was achieved using manuals for faunal materials and through comparison to the reference collection housed at the University of New England.[5]

5.3.1.6 FAUNAL REMAINS (SHELL)

The shell remains were identified to genus and species level using standard references.[6] Shell size is recorded, as it is used as an indicator of anthropogenic deposits, indicative of food potential for shell remains versus other activities, such as lime and lime mortar manufacture. However, the size and selectivity of species in cultural deposits are dependent on a range of variables, such as availability and dietary patterns. Surface modifications were recorded, including evidence of butchery, as analysis of cuts of meat contributes to the understanding of dietary patterns.

5.3.2 Functional Classification

For functional classification, artefacts are clustered into groups so that statistical analysis of these clusters provides interpretive data on the site. Creating a classificatory system that will select for the variables of interest for the research design is an approach that historical archaeologists worldwide have employed for decades to assist in site interpretation; creating a system that will appropriately classify these variables of interest is a problem that has therefore always plagued historical archaeologists. The functional classification system developed by Casey & Lowe is organised around primary intended use data based upon behavioural activity groups. They allow for the subdivision of each group into subcategories that further assist in use interpretation.

During the cataloguing and analysis process, artefacts in the site's artefact collection were classified into 16 defined activity groups. Artefacts that could not be functionally classified were catalogued as 'unidentified', and for this overview, artefacts that had a potential association with two or more functional groups have been considered here as 'multipurpose'. Relative frequencies of artefacts for each Phase, Area and Context are presented in their respective Phase discussion.

[3] Herbert 1836/1837; McCarthy 2005

[4] Varman 1993

[5] Schmidt 1972; Hillson 1992; Cohen & Serjeantson 1996; Fillios & Blake 2015

[6] Abbott and dance 1998; Lamprell and Whitehead 1992; Short and Potter 1987)

5.4 DISCUSSION OF ARTEFACTS BY PHASES OF SITE DEVELOPMENT

Based on historical research, seven phases of site development were identified based on the identification of specific structures and historical research (Table 3.1). Subsequently, Phase 4 was subdivided into two phases, as seen in Table 5.3. The following section uses the same seven phases of site development established for the structural archaeological remains and fills to discuss the artefactual record of the site.

In the 2018 AMS, the significance of archaeological remains, including the potential for artefact deposits, from the early period of occupation associated with Billy Blue's occupation (Phase 3) were assessed as potentially State significance. The later phases (4–7) of occupation including archaeological remains at the site were assessed as being of local heritage significance, including archaeological remains or artefacts associated with structures relating to the vehicular horse ferry wharf and other wharves, jetties, seawalls, slipways and other boat-building operations.

Table 5.3: Revised archaeological phases.

Phase	Date	Description
1	-	Natural landscape
2	-	Aboriginal occupation
3	1817-1860s	Early British occupation, wharf construction
4.1	1860s-1870s	Construction and early occupation of two houses built by Stevens c.1869. Early land reclamation, levelling, surfaces and retaining wall.
4.2	1880s-1890s	Additions to the houses, land reclamation, with repairs and modifications to the retaining walls and the construction of Stevens' jetty and maritime infrastructure.
5	Early 1900s-1930s	Vehicular ferry, upgrades, new businesses
6	1940s-1960s	Demolition of ferry wharf and cottages
7	1960s-2018	Public park

5.4.1 PHASE 3 – EARLY BRITISH OCCUPATION, WHARF CONSTRUCTION, 1817-MID 1860S

There are 11 deposits associated with Phase 3 site development. Temporal data was available for nine deposits, which contributed information to the temporal placement of the deposits (Table 5.4). Relative frequencies of functional groups are shown in Table 5.5. The modified historic topsoil/ A horizon was the original sand across the area that was disturbed by British contact. It was given different numbers in various test trenches and five deposits, located in Trench 4, Trench 22, House 1 and/or House 2, contained artefacts ((014), (029), (030), (032) & (103)). Some of these deposits result from redistribution of historic topsoil as levelling fill and some inclusive artefacts may have filtered down through the sands, moving down through it. The paucity of artefacts precludes in-depth analysis. Therefore, these deposits are characterised as:

- Context (014) – This assemblage from House 1 consists of a whiteware bowl rim and an unidentified iron fragment.
- Context (029) – In House 2, Room 3, there is a mix of residential and boat-building artefacts. Artefacts associated with the house's occupants are small finds, including a slate pencil, a tobacco pipe, a jewellery part, a sewing pin, a scrub brush and a sixpence. Boat-building artefacts consist of a copper alloy spike and sheathing tacks. Except for an 1870 coin, the temporal data for artefacts is consistent with Phase 3 site development. However, the presence of the later dated coin suggests the deposit may also represent, in part, Phase 4.1 site development.
- Context (030) – The pre-house levelling fill/modified historic sand deposit in Test Trench 4 contained one iron spike.
- Context (032) – In House 2, Room 3, there is a mix of residential and boat-building artefacts. Artefacts associated with occupants of the house are tobacco pipes, a button, an *Udolpho Wolfe* schnapps bottle, and a Chinese Export porcelain ginger jar. Boat-building artefacts consist of two copper alloy nails.
- Context (103) – The historic topsoil in Test Trench 22 contained mainly ceramic tableware items, as well as a figurine, a tobacco pipe and a gin/schnapps bottle.

These individual contexts may, indeed, represent a contemporary continuous historic topsoil deposit, as a mend was achieved for sherds of a Chinese Export jar from two separate contexts (029) and (032) although the fragments were from the same room (Figure 5.1). Collectively, the artefacts from the historic topsoil deposits are mainly consistent with a Phase 3 residential setting with some representation of boat building activities. The one 1870 British sixpence from House 2, Room 3 (029), suggests that at least in this room the deposit was also associated with Phase 4.2 site development. As this is a sandy deposit it would be easy for artefacts to work their way down through the sand.

Table 5.4: Calculated date ranges and quantitative data for deposits associated Phase 3 contexts.

Phase	Area	Context	TPQ	TAQ	Total MIC	Datable MIC
3	A	013	1830	1870	15	8
3	A	014	1830	1930	2	1
3	A	029	1835	1870	15	8
3	A	031			17	13

Phase	Area	Context	TPQ	TAQ	Total MIC	Datable MIC
3	A	032	1835	1853	9	6
3	A	033	1830s	1860	8	2
3	A	049	1853	1870	3	3
3	A	074	1788	1950	5	3
3	A	103	1800	1830	6	5
Total					**80**	**49**

Figure 5.1: A hand-painted Chinese Export ginger jar. 032/#5278 (15) joins 029/#5370 (4). 100mm scale. DSC_4381. Russell Workman.

Phase 3 deposits also consisted of episodes of leveling fill ((013), (031), (033) & (049)). Fill (031) represents pre-house levelling and contained mainly food, beverage and architectural artefacts. Many artefacts represent early 19th-century site occupation, such as a stoneware ginger beer bottle (1800 *TPQ*) (Figure 5.2) and a dip moulded gin/schnapps bottle (1820

TAQ). However, the two wire-drawn nails (1890 *TPQ*) suggest subsequent disturbance to this deposit.

Deposit (033) was a rubble levelling fill in an L-shaped modified natural channel (108) and may be levelling preparation for the addition of a lean-to extension, such as a skiling (Figure 4.7). The artefacts (8 MIC) are mainly ceramic tableware with an 1830s *TPQ*, however, the deposit also includes an 1857 threepence, and these items are consistent with Phase 3 site development. There is also one copper alloy nail associated with boat building.

Deposit (013) is the same rubble levelling material (15 MIC) as (033), and predates House 1 and House 2 construction. Datable artefacts represent a temporal range of artefacts from the 1830s to 1870s. Artefacts which collected in this fill presumably fell down through a sandy deposit or may predate the occupation of the house. This artefact assemblage (15 MIC) exhibited a diverse variety of items that provided insights into the house and its occupants. The architectural elements, consisting of the end plate to a door lock mechanism and roofing nails and a roofing screw/washer, indicate that the roof to the structure was metal rather than tile. Food-related items, including a bone china plate, an edge decorated pearlware plate and a sponge-decorated vessel, suggest that the everyday table setting was modestly priced wares but possibly included finer bone china service. Small items used or worn by the site's occupants, including a jewellery part, a hair comb and a button, indicate the presence of a woman in the household and a general concern by the occupants about their appearance and good hygiene/grooming.

Figure 5.2: Early 19th-century stoneware bottle 031/#5347. 100mm scale. DSC_4290. Russell Workman.

A rubble deposit with a sandy matrix was associated with House 1 verandah (049) and contained only architectural debris (3 MIC), consisting of nails and a bolt. Temporal data for these items indicates the deposit was consistent with Phase 3 site development.

The fill of a circular-shaped pit feature (074) contained near-complete spikes (3 MIC), a segment of a barrel hoop and a bracket. Temporal data consisted of a wide 1788–1950 date range for the spikes, and thus temporal placement for the deposit ranges from Phase 3 to Phase 6 of site development.

Table 5.5 Relative Frequencies for Functional Groups for Phase 3 Contexts.

Phase	Area	Context	Architecture	Beverage	Clerical	Economy	Food	Household	Household/ Transportation	Multipurpose	Personal	Pharmacy	Recreation	Storage	Transportation	Unidentified	TOTAL
3	A	013	33.3%	13.3%			20.0%			20.0%	13.3%						**15**
3	A	014					50.0%									50.0%	**2**
3	A	029		13.3%	6.7%	6.7%		6.7%	6.7%	26.7%			6.7%		13.3%	13.3%	**15**
3	A	030	100.0%														**1**
3	A	031	17.6%	17.6%			23.5%		11.8%		5.9%				5.9%	17.6%	**17**
3	A	032	22.2%	11.1%							11.1%		22.2%		22.2%	11.1%	**9**
3	A	033				12.5%	37.5%								12.5%	37.5%	**8**
3	A	049	100.0%														**3**
3	A	063		50.0%												50.0%	**2**
3	A	074	60.0%							20.0%				20.0%			**5**
3	A	103		16.7%			33.3%	16.7%					16.7%			16.7%	**6**
																Total	**83**

5.4.2 PHASE 4

5.4.2.1 Phase 4.1 1860s-1870s, construction and early occupation of two houses built by Stevens c.1869. Early land reclamation, levelling, surfaces and retaining wall.

Thera are 15 contexts associated with Phase 4.1 site development that contained artefacts, and all are from Area A. The paucity of artefacts from seven deposits ((009), (023), (028), (050), (061), (073) & (097) consisted of only one or two artefacts and precluded any accurate temporal placement or functional association. Temporal and functional data for all Phase 4.1 deposits are shown in Table 5.6 and Table 5.7, but there is no further discussion of the seven deposits with only one or two artefacts.

Table 5.6: Calculated date ranges and quantitative data for deposits associated Phase 4.1 contexts.

Phase	Area	Context	TPQ	TAQ	Total MIC	Datable MIC
4.1	A	005	1845	1870	31	19
4.1	A	009	1840	1880	2	2
4.1	A	010	1845	1870	30	24
4.1	A	023	1840		1	1
4.1	A	028	1830	1930	2	1
4.1	A	050	1835		2	2
4.1	A	058	1845	1870	48	25
4.1	A	061	1840		2	1
4.1	A	065	1850	1880	85	53
4.1	A	068	1845	1930	14	9
4.1	A	073	1830	1930	2	2
4.1	A	078	1845	1930	17	13
4.1	A	079	1860	1870	68	47
4.1	A	081	1840	1890	11	5
4.1	A	097	1840		1	1
Total					**316**	**205**

Table 5.7 Relative Frequencies for Functional Groups for Phase 4.1 Contexts.

Phase	Area	Context	Architecture%	Beverage %	Clerical %	Economy %	Food %	Household %	household/ transportation %	Multipurpose %	Personal %	Pharmacy %	Recreation %	transportation	unidentified	work	yard	TOTAL
4.1	A		100.0%															2
4.1	A	005		9.7%			38.7%	3.2%						6.5%	41.9%			31
4.1	A	009	100.0%															2
4.1	A	010	3.3%	13.3%			36.7%				3.3%		3.3%		40.0%			30
4.1	A	023	100.0%															1
4.1	A	028		50.0%											50.0%			2
4.1	A	050							50.0%					50.0%				2
4.1	A	058	16.7%	27.1%			18.8%	4.2%	2.1%				4.2%		27.1%			48
4.1	A	061	50.0%												50.0%			2
4.1	A	065	4.7%	7.1%	1.2%	1.2%	14.1%	25.9%		17.6%	18.8%		2.4%		7.1%			85
4.1	A	068	8.3%				25.0%		25.0%	16.7%				8.3%	16.7%			14
4.1	A	073					100.0%											2
4.1	A	078	17.6%	11.8%	5.9%		41.2%						5.9%	5.9%	11.8%			17
4.1	A	079	4.4%	14.7%			33.8%	1.5%			1.5%	1.5%	5.9%		36.8%			68
4.1	A	081	9.1%	27.3%			27.3%								36.4%			11
4.1	A	097	100.0%															1
																	Total	**318**

Three Phase 4.1 deposits consisted of black sandy fill ((005), (010) and (058)). These deposits were fill imported post-construction of House 1 and Houses 3 to stabilise the footings. In House 1, Room 4, 80% of the 30 MIC contributed to an 1845–1870 calculated date range, consistent with Phase 4.1 site development. Key temporal indicators are pearlware tableware (1788–1870), flow blue transfer-printed tableware (1845–1930), and dip-moulded bottles (1920 *TAQ*). Functionally classified they consist mainly of food-related ceramic vessels (36.7%) and glass beverage bottles (13.3%). However, since these fills were imported, they do not reflect activities within the household.

In House 3, Room 4, the same black sandy fill (058) contained 48 MIC, and 52% of artefacts contributed to a calculated 1845–1870 date range (Figure 4.64). Key temporal indicators are pearlware tableware (1788–1870), dip-moulded glass beer/wine bottles with sand pontil scars (1820–1870), and flow blue transfer-printed tableware (1845–1930). Functionally classified and consist mainly of architectural debris (16.7%) (iron lace, nails, window glass, and render & set), food-related ceramic vessels (18.8%) and glass beverage bottles (27.1%), however, since these materials were imported onto the site, they are not structural remains from the house and do not reflect activities within the household. Though they are presumably from nearby.

Located east and north of House 3, a third black sandy fill (005) contained 31 MIC and artefacts also contributed to an 1845–1870 calculated date range. Key temporal indicators are pearlware tableware (1788–1870), copper alloy boat nails (1835 TPQ), edgeware decorated plate (1841–1857), and flow blue transfer-printed tableware (1845–1930). Similar to other black sandy deposits ((010) & (058), the artefacts from this deposit are mainly beverage (9.7%) and food (38.7%). However, copper alloy boat nails in this deposit also reflect the known boat building activities at the site. This deposit and the artefacts were transported to the site.

In addition to the black sandy fill (058) in House 3, Room 4, there were three Phase 4.1 deposits ((078), (079) and (081)) that contained artefacts (Figure 4.59). The upper grey sandy fill (078) contained 17 MIC, and while there is one earlier dated beer/wine bottle (1780–1820) in this assemblage, overall, 76% of artefacts contributed to a calculated 1845–1930 date range. The artefacts from (078) are mainly beverage bottles (11.8%) and food-related ceramic vessels (41.2%). Small finds associated with this assemblage are a tobacco pipe and a slate pencil. Also, there is a copper alloy nail that is associated with boat building.

Directly below the grey sandy fill (078) was a layer of construction debris (092) that contained no artefacts. However, in TT 09 the upper fill (078) and the construction debris (092) were recorded together as (065). There are 85 MIC from this mixed deposit and temporal data contributed to a calculated 1850–1880 date range. Key temporal indicators include a *Minton & Co* cup (1842–1930), mother-of-pearl buttons (1850 *TPQ*), vulcanite hair combs (1851 *TPQ*), and pins with spherical wound conical heads (1840–1880). The character of the assemblage is similar to an underfloor deposit, in that there is a variety of small finds that could have easily fallen through cracks in the floor boards. These items include clothing buttons, beads from jewellery or clothing, a pencil slate, a tobacco pipe, pins, combs, nails and a doll part.

Also, in TT 09, beneath the mixed deposit (065) was a black sand deposit (068) (Figure 4.58). Artefacts (14 MIC) were recovered from within the verandah of House 3. Temporal data was mainly limited to wide date ranges, including transfer-printed (1830–1930) and flow-blue (1845 *TPQ*) printed ceramic vessels and wire-drawn copper alloy nails and tacks (1835 *TPQ*); therefore, only a suggested 1845–1890 date range is proposed for artefacts in this deposit. The artefacts are mainly hardware fasteners associated with building construction, household

maintenance, and in particular, a copper alloy nail and possibly two tacks are associated with the boat building industry.

Beneath deposit (092), a black sandy deposit (079) that abutted the walls of House 3, Room 4 contained 68 MIC. Approximately 69% of the artefacts contributed to a calculated 1860–1870 date range. Key temporal indicators include pearlware vessels (1780–1870), flow blue ceramic vessels (1845 TPQ), a vulcanite comb (1850 *TPQ*), and Willow patterned ceramic vessels made by *E. & C. Challinor* (1862–1891). The artefacts from (079) are mainly beverage bottles (14.7%) and food-related ceramic vessels (33.8%). Small finds associated with the site's occupants consist of a tobacco pipe, a vulcanite hair comb, and the ceramic lid for a patented ointment pot.

Sitting directly above the natural sand was a yellow and white mottled deposit (081) that contained 11 MIC. The few datable artefacts (5 MIC) contributed to a suggested 1840–1890 date range and includes a hand-forged nail (1788–1890), a dip-moulded beer/wine bottle (1820–1850) and a red transfer-printed ceramic vessel (1840 *TPQ)*. The artefacts from (081) are mainly beverage bottles (27.3%) and food-related ceramic vessels (27.3%).

5.4.2.2 Phase 4.2 1880s-1890s, additions to the houses, land reclamation, with repairs and modifications to the retaining walls and the construction of Stevens' jetty and maritime infrastructure.

There are 13 contexts associated with Phase 4.2 site development that contained artefacts: ten from Area A and three from Area B. Temporal and functional data for all Phase 4.2 deposits are shown in Table 5.8 and Table 5.9. The paucity of artefacts (<5 MIC) for 11 deposits ((006), (007), (035), (043), (048), (067), (071), (316), (321), (330), & (331)) precludes any accurate temporal placement, however available temporal data for each is consistent with Phase 4.2 site development. For these same contexts, functional analysis results were inconclusive.

Table 5.8: Calculated date ranges and quantitative data for deposits associated Phase 4.2 contexts.

Phase	Area	Context	TPQ	TAQ	Total MIC	Datable MIC
4.2	A	006	1880		2	2
4.2	A	007	1850	1900	4	4
4.2	**A**	**024**	**1830**	**1890**	**145**	**87**
4.2	A	035	1860	1930	2	2
4.2	A	043	1862	1891	4	3
4.2	A	048	1850	1920	3	2
4.2	A	059	1860	1890	17	8
4.2	A	067	1840	1920	4	3
4.2	A	071	1880		1	1
4.2	A	316	1840		1	1
4.2	B	321	1860		1	1
4.2	B	330	1840		2	2
4.2	B	331	1840		1	1
Total					**187**	**117**

Two deposits in Area A ((024) and (059)) have sufficient artefact quantities to allow for temporal placement and functional analysis. The uppermost fill (024) in the eastern end of the front verandah, House 3 contained 145 MIC (Figure 4.57). Temporal data provided by 60% of the assemblage contributed to a calculated 1830–1890 date range. This deposit more likely represents an accumulation of materials over time, as there are artefacts with early 19th-century date ranges, ones with mid-to-late-19th-century date ranges and one with a 1890s *TPQ*. Key temporal indicators include early pearlware vessels (1780–1830), dip-moulded beer/wine bottles (1820–1870), a press-moulded tumbler (1830 *TPQ)*, flow-blue transfer-printed vessels (1845–1870), a *Thomas White, & Company* tobacco pipe (1847–1870), a clip with an 1856 registry mark, and a decalcomania decorated bone china vessel (1890 *TPQ*).

Approximately 60% of artefacts (88 MIC) are functionally categorised. The artefacts are mainly beverage bottles (15.2%) and food-related ceramic vessels (37.2%). Beverage bottles (22 MIC) are mainly alcohol types, including beer/wine, ginger beer, and gin/schnapps. There is only one aerate water bottle in the assemblage. Approximately 22% of food-related artefacts are teawares (cups and saucers) decorated in green, blue, and flow-blue transfer-printed patterns. While plates are predominately decorated with Willow and Albion patterns, the blue teaware cups are decorated in the Chantilly pattern, suggesting teawares were a separate service from tableware. Pencils (2 MIC) and tobacco pipes (3 MIC) from this verandah deposit indicate that the household activities evidenced in Room 4 (Phase 4.1), were also conducted on the verandah. Also, there was a copper alloy boat-building nail in the deposit.

Levelling fill (059) was within House 1, Room A footings, which may have been introduced to raise the ground below the floor after building brick additions contained 17 MIC. Temporal data from 47% of artefacts contributed to a calculated 1860–1890 date range, consistent with Phase 4.2 site development. Key temporal indicators include hand-forged nails (1788–1890), a club sauce type stopper (1840 *TPQ*), an ointment pot for *Holloway's cure of gout and rheumatism* (1842–1860), and a galvanised screw (1860 *TPQ*).

Functional analysis classified approximately 82% of the artefacts (14 MIC) into six identified groups. Food-related artefacts represent the high relative frequency of items and consist of ceramic and glass tableware and a sauce bottle stopper. Beverage bottles are alcohol containers, including gin/schnapps and beer/wine. Architectural remains consist of nails and window glass. Other artefacts include a mother-of-pearl button, a patent medicine potlid and sheathing nail used in boat building.

Table 5.9 Relative Frequencies for Functional Groups for Phase 4.2 Contexts.

Phase	Area	Context	Architecture	Beverage	Clerical	Economy	Food	Household	Personal	Pharmacy	Recreation	TUansportation	unidentified	Work	TOTAL
4.2	A	006	100.0%												2
4.2	A	007	25.0%				50.0%						25.0%		4
4.2	A	024	0.7%	15.2%	1.4%		37.2%	0.7%	2.1%		2.1%	0.7%	39.3%	0.7%	145
4.2	A	035					100.0%								2
4.2	A	043					50.0%					25.0%	25.0%		4
4.2	A	048		66.7%									33.3%		3
4.2	A	059	17.6%	17.6%			29.4%		5.9%	5.9%		5.9%	17.6%		17
4.2	A	067		50.0%			25.0%						25.0%		4
4.2	A	071	100.0%												1
4.2	A	316	100.0%												1
4.2	B	321	100.0%												1
4.2	B	331		60.0%				20.0%					20.0%		2
														Total	**186**

5.4.3 PHASE 5 – Vehicular ferry, upgrades, new businesses, Early 1900s-1930s

There are 11 contexts associated with Phase 5 site development that contained artefacts: eight from Area A and three from Area B. Temporal and functional data for all Phase 5 deposits are shown in Table 5.10 and Table 5.11. Discussion of these deposits are organised by area. A special excavation methodological approach was taken to recover materials from underfloor deposits within the structures. Where an occupation-related deposit was present, a 1m by 1m grid was set up, and excavated by context in 'spits' of 50mm. However, ceramic and glass artefacts from underfloor deposits were mainly small sherds that were functionally or temporally undiagnostic sherds (<10mm), and only datable and functionally identifiable artefacts were retained for the cataloguing. In this manner temporal information was achieved for 63.7% of the artefacts and functional classification was established for 96.7% of these assemblages.

There are four underfloor deposits ((021), (066), (069), & (082)) in Area A that constitute the majority of artefacts (89.3%) recovered from excavations across the site. Underfloor deposits are defined as archaeological material that accumulates underneath floors in buildings with suspended wooden floors. Until the 1870s, timber floorboards in NSW were often shot floorboards, square-edged and butted together, tongue and groove floorboards were readily available from the 1870s, and these two types continued to be used throughout the 19th century (Figure 5.3). Slot type flooring had gaps that facilitated the loss of small or fragmented artefacts that accumulated below and for both flooring types gaps, there were similar gaps where the flooring met the wall. Their preservation provides important sources of information about the people who occupied buildings in the past and how they used these buildings. Artefacts in underfloor deposits were often associated with the lives of women and children.

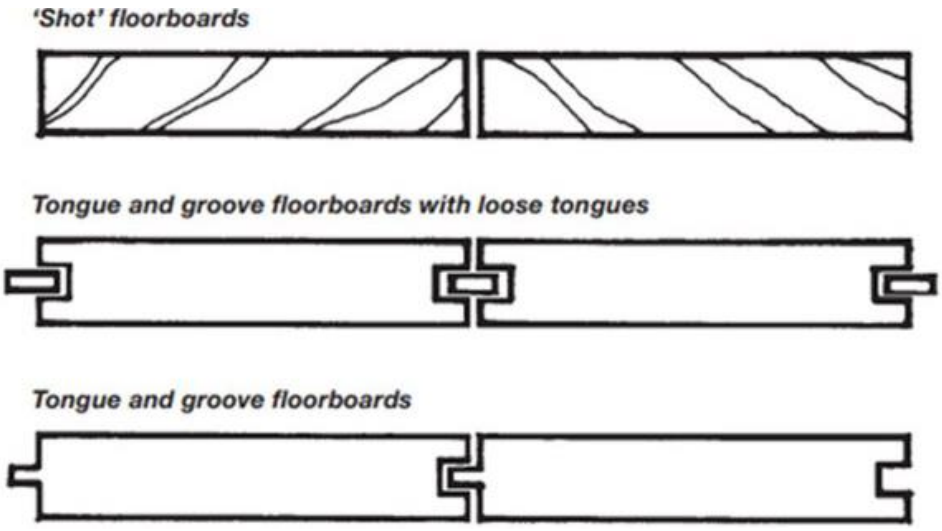

Figure 5.3: Common Australian floorboard types.[7]

[7] NSW Heritage Office. 2005. *Repair of Tongue and Groove Floorboards Information* Sheet 5.4

Table 5.10 Calculated date ranges and quantitative data for deposits associated Phase 5 contexts.

Phase	Area	Context	TPQ	TAQ	Total MIC	Datable MIC
5	A	021	1860	1932	489	53
5	A	066	1870	1914	4472	3102
5	A	069	1860	1880	23	14
5	A	072	1850	1900	2	2
5	A	082	1870	1930	14	9
5	A	090	1890	1906	46	32
5	A	099	1820	1850	2	2
5	A	328	1840		2	2
5	B	311	1845	1930	5	4
5	B	323	1868	1930	10	6
5	B	337	1860	1930	90	82
Total					**5155**	**3308**

Since the early 21st century, Australian archaeologists have become increasingly aware of the importance of underfloor deposits to the interpretation of site use.[8] There is a lack of comparative literature and research from overseas resources. Still, as Casey's 2004 article suggests, this may be partly due to the presence of cellars in European and American buildings – generally not found in Australian colonial buildings – that negate the capacity for such deposits to accumulate.

The following analysis discusses underfloor deposits by House and Room designations. This study is designed to contribute to the interpretation of the use of each room within a house, identify artefacts denoting occupants of the house (gender and age), and delineate potential activities conducted within each room.

Analysis of artefacts from Phase 5, Area A focuses on the underfloor deposits found in House 1 and House 2. It is noted the underfloor deposits are discussed in Phase 5 but as they are collected during the whole life of a house, they relate to Phase 3 and 4 as well. They were placed in Phase 5 for convenience. Artefacts from these deposits represent the majority (89.3%) of the site's artefact collection, and analysis of these small finds that fell through the floorboard cracks not only serve to provided temporal information on the occupation, but a room-by-room analysis aids in the interpretation of the activities associated with each room and the occupants that used them. This was accomplished in part by quantitative mapping of room in a grid pattern to illustrate distribution patterns from each underfloor deposit (Table 5.14 and Table 5.15).

5.4.3.1.1 UNDERFLOOR DEPOSITS (66) & (69) – HOUSE 1, ROOM 2

The underfloor deposit in House 1, Room 2 was considered in two parts: main floor area and fireplace/hearth area (Figure 4.109, Figure 5.9). The fill (069) associated with the fireplace contained 23 MIC, three medium bone fragments–one pig– and one top shell. Temporal data from 61% of the artefacts (14 MIC) contributed to a calculated 1860–1880 date range. Key temporal indicators include a hand-forged nail (1788–1890), galvanised screw (1860 TPQ), pins (1809¬–1880). For this small assemblage, 52% of artefacts (12 MIC) identified in seven functional groups and three beads are identified as multipurpose

[8] Casey 2004; Davies 2010; Murphy 2013; Davies et al 2014;

(clothing/jewellery/furnishing). The diversity in this assemblage is similar to that of the rest of the underfloor deposit for the main floor area discussed below and includes writing slates, a beer/wine bottle, clothing fasteners, a toy marble and copper alloy boat-building nails.

Artefacts from House 1, Room 2's underfloor deposit (066) indicate the room was used for a diverse variety of activities. The underfloor deposit (066) in House 1, Room 2 contained 4472 MIC, 879 bone fragments, 173 shell MNI and three human teeth. Temporal data was obtained for approximately 70% of the assemblage. Since House 1 was constructed prior to 1857, it is probable that the artefacts recovered from under the floorboards represent an accumulation of materials over time. The majority of datable artefacts had wide-ranging date estimates from the early to the late 19th century. Coins recovered from this deposit have dates that range from 1818 to 1875 (Table 5.12). Furthermore, the pollen sample taken from this deposit predates 1857. However, based on key temporal indicators (vulcanite combs (1851 TPQ), a button from Sydney clothier *Peapes & Shaw* (1868–1884), *George Whybrow* bottle stoppers (1840–1900), vulcanite combs (1860 TPQ), wire-drawn nails (1890–1940), and a Bakelite jewellery part (1907 TPQ), suggest an 1870–1914 date range for the deposit, which is consistent with Phase 4.2 and Phase 5 site development.

Datable architectural elements contribute temporal information regarding the construction of the house. House 1 is a pre-1857 structure that survived with modifications until the 1940s. All window glass is the thin crown type (1.0–1.7mm) that is associated mainly with construction before 1850 and the majority (63.1%) of nails (118 MIC) have an 1853–1890 date range. These temporal results are consistent with the documentation for the house's construction before mid-1850s. The later dating wire-drawn nails (1890–1940) are consistent with Phase 5 site development, and their low relative frequency (3.7%) suggests they resulted from maintenance and repairs to the structure.

Functional analysis results for this underfloor deposit (066) indicate Room 2 was the central hub of the house. This is where the residents prepared and ate their food, where the women and children worked at sewing and needle craft, and where residents smoked and drank. It was a place that children studied and played. Room 2 was where the residents groomed and may have been where their dental needs were addressed. Dominating this Room 2 underfloor deposit are sewing/needlework paraphernalia (1785 MIC), which are mainly pins (1758 MIC) and includes a variety of tools, such as thimbles (14 MIC), a crochet hook, a lace-making bobbin, and a bone thread barrel (Figure 5.4). Also in the assemblage was a large quantity of beads (595 MIC) and buttons (400 MIC) which indicate extensive sewing activities (Figure 5.4, Figure 5.5). Beads (595 MIC) are the second-highest relative frequency of artefacts, consisting of approximately 95 different bead types and suggesting significant beadworking was undertaken as part of household activities.

Analysis of artefact types from deposit (066) provides insights on the occupants of House 1, including literacy, gender and recreational pursuits. Clerical items, including slate pencils (130 MIC), lead pencils (18 MIC), mechanical pencils (9 MIC), and a lined slate board, attest to the literacy of the residents. It should be noted that all slate pencils were catalogued as child-related artefacts; however, in the absence of any clerical items associated with writing with ink (ink bottles, pens or nibs), slate pencils were most likely used by all members of the household. Beyond slate pencils, there is a variety of artefacts associated with children. Along with locally available shells 'exotic' shell type were possibly collected by children of the households, which best explained their presence in this context.

Figure 5.4: Selected bone paraphernalia from context 066 (l-r). Top row: thread winder #20994, finial #21000, container #21310, container #21296, possible tiny stopper #21111. Second row: circular lid/terminal to possible needle case or wax container #20995, disc #21314, container #21311, unidentified #21297, bone/ivory stopper #20998. Third row: lacemaking awl #21538. Fourth row: lacemaking bobbin #20997. Bottom row: crochet hook #20431. 100mm scale. DSC_4387. Russell Workman.

Figure 5.5: Examples of beads and buttons from underfloor deposits in House 1, context 066 (l-r). Top row: beads, #20582 (7), #20915 (4) above #20506, #20744, #20502, #20596, #20589 (2) and #20755 above #20905 (3), #20906 (3). Second row: buttons, #20768, #20684, #20348, #20308, #20677, #21134. Third row: buttons, #20711, #20809, #20307, #21056, #21048, #21430. Fourth row: #20707, #20818, #20364, #20365, #20363, #20718, #21064, #21005. Bottom row: #20703, #20274, #20273, #20359, #20817, #21199, #20993. 100mm scale. DSC_4390. Russell Workman.

Child/infant-related clothing items were limited to clothing fasteners, including buttons, hook & eyes, and safety pins. Of note are the small buttons identified as infant/doll clothing related. Two bone nipple guards for a feeding bottle also demonstrate evidence of infants in the household. Children's toys include a variety of marbles (53 MIC), doll/doll parts (9 MIC), toy dishes, a painted lead soldier figure, a painted lead horse figure and two lead wheels (Figure 5.6).

Figure 5.6: Selected examples of children's items from underfloor deposits, predominantly context 066 (l-r). Top row: marbles, stonie #20421, handmade clay #20979, pop alley #20798, Benningtin brown #20632, glass alley #20981. Second row: bisque figurine/doll foot #21272. Bottom row: bisque figurine/doll face #21115 joins #20842, frozen Charlotte #20284, #21273, hand #21119, foot #21117, 082/#21590. 100mm scale. DSC_4384. Russell Workman.

Table 5.11: Relative Frequencies for Functional Groups for Phase 5 Contexts.

Phase	Area	Context	Architecture	Beverage	Clerical	Economy	Food	Household	Household/ transportation	Industry	Multipurpose	Personal	Pharmacy	Recreation	Service	Transportation	Unidentified	TOTAL
5	A	021	2.7%	0.6%	1.2%	0.2%	0.8%	4.3%	0.2%		**81.8%**	4.3%		1.0%			2.9%	**489**
5	A	066	6.0%	0.3%	3.7%	0.2%	0.8%	**42.3%**	6.4%	0.04%	**13.6%**	**18.7%**	0.1%	1.9%		3.1%	2.8%	**4472**
5	A	069	8.7%	4.3%	8.7%			8.7%	4.3%		13.0%	8.7%		4.3%		4.3%	34.8%	**23**
5	A	072	100.0%															**2**
5	A	082		7.1%				28.6%			21.4%	7.1%		21.4%			14.3%	**14**
5	A	090	10.9%	6.5%	2.2%		28.3%	10.9%	8.7%	2.2%	2.2%	4.3%				2.2%	21.7%	**46**
5	A	094										33.3%					66.7%	**3**
5	A	095															100.0%	**1**
5	A	099		50.0%													50.0%	**2**
5	A	328	100.0%															**2**
5	B	311		20.0%			40.0%										40.0%	**5**
5	B	323		20.0%		10.0%	20.0%						10.0%		10.0%	10.0%	20.0%	**10**
5	B	326															100.0%	**1**
5	B	337	**11.1%**	10.0%	1.1%		46.7%	1.1%	5.6%			1.1%	4.4%	2.2%		**12.2%**	4.4%	**90**
																	Total	**5160**

Table 5.12: Coins recovered from House 1, Room 2, Context (066).

Denomination	Fabric	Mint Date	Country	# Items
Shilling	silver	1818	Great Britain	1
Half penny	bronze	(1838-1860)	Great Britain	1
Four Pence groat	silver	1846	Great Britain	1
Florin?	silver	1849	Great Britain	1
Farthing	bronze	(1860-1879)	Great Britain	1
Threepence	copper alloy	1870	Great Britain	1
Penny (bun head)	bronze	1873	Great Britain	1
Threepence	silver	1874	Great Britain	1
Half penny	bronze	1875	Great Britain	1
Total				**9**

Sewing and needle craft items are generally associated with female members of a household, however, there are two child-sized thimbles that indicate children participated in domestic activities/chores. There are a variety of artefacts representing jewellery (48 MIC), including brooches, earrings, rings, pendants, a locket and necklaces (Figure 5.7), as well as jeweller parts such as chain links and inlays. Combs used for securing styled hair are also associated with female members of the household.

During Australia's Convict Era (1788–1868), smoking tobacco pipes was a typical activity for adult members of the working-class. As social values change during the latter half of the 19th century, smoking became less acceptable and for working-class women, their smoking was not condoned.[9] Therefore, by the turn of the 20th century, tobacco pipes smoking was generally a male-related activity and therefore, the 20 tobacco pipes recovered from the underfloor deposit are considered to be associated with the men of the household. By the 19th-century pocket watches were a necessity of many members of the working-class society, including the maritime industries in the Blues Point area. As these are male-dominated industries, the pocket watch fob found in this deposit most likely belonged to a male in the household.

[9] Walker 1984:11

Figure 5.7: Selected jewellery finds from underfloor deposit, context 066 (l-r). Top row: small linked chain #20514, ball link chain #20602, cable chain #21085 (7). Second row: brooch #21002 (3), brooch pin #21338, tiny aes decoration #21113. Third row: pin for brooch/safety pin #21298, earring hook #20732, pressed circular aes #20724, cone shaped component of chain for necklace/bracelet #20447, aes pendant #20880. Fourth row: necklace clasp #21511, cylindrical end of chain #20727, MoP inlay #21407, circular button/cuff link/necklace part #20312, dom facetted 'gem' #20746, cylindrical MoP disc #21199, necklace/bracelet piece #20881, pendant cap #20730, split pin #21112. Fifth row: locket/pendant frame #21192, 8-pointed star #21084, 5 petal flower earrings #21477, #21195. Bottom row: pendant #21280, oval pendant/brooch with glass inlay #20840, celluloid black jet brooch #21278, leaf shaped celluloid pendant #20315, MoP clip #20723, teardrop dome pendant #20720. 100mm scale. DSC_4321. Russell Workman.

Hygiene and grooming-related artefacts are not limited to one age or gender group. Beyond combs used by ladies for hair styling, there are fragments of numerous hair combs and, given the grid-square recovery method, probably represent far fewer than the 65 MIC vulcanite and celluloid combs listed in the catalogue. These grooming items indicate substantial efforts made by the residence to their appearance. Where hair grooming helped to portray the appearance of cleanliness, fragrances were used to give the body a pleasant smell. The three perfume bottles were identified in deposit, one of which is a median price product manufactured by E. Rimmel (1850 *TPQ*).

Through the cracks in the floorboards, the accumulative process meant that only the smallest of food-related (35 MIC) and beverage-related items made their way into the deposit. Food-related items include bottle stoppers and nipple guards, glass serving vessels (6 MIC), condiment bottles (2 MIC) and stoppers (8 MIC) and identifiable sherds of ceramic tableware. It should be noted that there is only one teaware item – a saucer – in the deposit, and the only porcelain item is a Chinese export painted bowl.

The quantity and variety of food remains suggest that Room 2 was used for food preparation and dining. Approximately 36.2% of bone is indeterminate fish remains. Identified fish species are cuttle fish, bream, and red snapper (Figure 5.8). Skeletal elements from fish are mainly from the vertebral column and the head, which indicates whole fish processing and the consumption of marine resources were a regular dietary source. Domestic mammal species are mainly adult sheep (30.3%), and remains consist primarily of vertebral column elements with hindquarters and ribs also represented. Other domestic mammal remains include cattle (2.6%) and pig (0.9%), and 33 chicken bones represent complete carcasses. There are 34 taxa of shell in this deposit, with Sydney rock oyster (S. glomerata) representing the largest proportion by weight (41%); however, common periwinkle (A. constricta) represents the large proportion by MNI (20%). The broad range of species identified, and three 'exotic' types (7 MNI), in context (066) suggests that a proportion of the assemblage may have been possible curio items.

Figure 5.8: Marine fish bone from Context (066): (*Top Left Section*) Two fragments of cuttlebone. (*Bottom Left Section*). A fragment of cranium from a red snapper. (*Right Section)* Jaw fragment from a bream. James Roberts, Volume 2.

Evidence of boat-building activities are also found in the underfloor deposit (066), consisting mainly of copper alloy hardware fasteners (nails, roves, tacks) (137 MIC). Additional hardware fasteners, such as copper alloy tacks (261 MIC), whose use was initially determined to be either boat building or related to furnishings. During the metal analysis from this deposit, use interpretation for tacks was suggested as fasteners to secure floor coverings in the room. The availability of maritime-related copper nails means they may have been used outside of normal boat building activities.

Architectural elements (276 MIC) were recovered from all grid squares, excluding those designating the fireplace (069). The majority of architectural elements are hardware fasteners (264 MIC), including nails (175 MIC), screws (12 MIC), tacks (10 MIC), spikes (10 MIC), and washers (12 MIC). Also in the deposit are fragments of window glass (24 MIC), and spatial analysis shows that no glass was recovered along the northern wall of the room and fragments of one window pane were recovered along the eastern wall, which suggests windows were located along the western and southern walls (Table 5.13). Obviously, the southern window offered view to the harbour and its southern shore.

Results of functional analysis indicate artefacts from this deposit (066) are typical of the small finds found in underfloor deposits of a residential setting. Results also show the room served as the centre of household activities with evidence of numerous distinct artefact types present in the deposit. Interpretation of this deposit is discussed in more detail in Section 5.5 as they relate to the research questions.

Table 5.13 Spatial distribution of window glass in underfloor deposit (066), House 1, Room 2.

SQ	1	2	3	4
A				
B	1	3		
C	5	3	3	
C/D				1
D	3	1	3	

Samples only were taken of plaster (4 MIC) and render (3 MIC) from underfloor deposit (066) and therefore they are not indicative of the distribution of these materials across the deposit. The primary material used for both of these architectural finishes is shell. The render was a coarse-textured wall application, and the plaster was a moulded shell and sand mixture. Also, one brick sample was retained, a sandstock brick with a slightly rounded diamond frog in the centre of stockface. This brick was used in construction from 1830 to 1880.

Spatial distribution analysis indicates that the highest concentration of artefacts was recovered from a four-square area (B1, B2, C1, C2) (Table 5.14). These results suggest that this 4-square area was subject to more frequent use than other areas of the room. Spatial

analysis of bone food remains produce similar results in that the highest concentration of bone accumulated in grid square C1 along the western wall of the room, and in Squares B1, C2 and C3, which suggest that food service/consumption activities were a little more restricted than the general room use pattern (Table 5.15). While these results show a higher concentration of artefacts and bone is certain areas of the room, it should be noted that when fragments of one exampled unique pink and white ornament glass item are spatially plotted in the room, the results suggest a distribution of materials across the room. These four squares are in the southeast corner of Room 2 which is located immediately off the southern verandah. It is likely there were windows with glass or French doors which opened up provided access to reasonable daylight even if facing to the south.

Table 5.14 Spatial distribution plot of artefacts from underfloor deposit House 1, Room 2 (066) (Square A1 represent the northwest corner of the room).

SQ	1	2	3	4	Total		Key	
A	67	65	26	2	**160**			0–25
B	555	807	44	-	**1406**			25–100
C	1427	799	213	-	**2439**			100–200
C/D	-	-	-	49	**49**			200–500
D	80	199	128	2	**409**			500+
Total	**2129**	**1870**	**411**	**53**	**4463**			

Table 5.15 Spatial distribution plot of bone from underfloor deposit House 1, Room 2 (066) (Square A1 represent the northwest corner of the room).

SQ	1	2	3	4	Total		Key	
A	2	17	8	1	**28**			0–25
B	38	135	26	-	**199**			25–100
C	211	185	122	-	**518**			100–200
C/D	-	-	-	11	**11**			200–500
D	16	27	57	4	**104**			500+
Total	**268**	**366**	**216**	**15**	**865**			

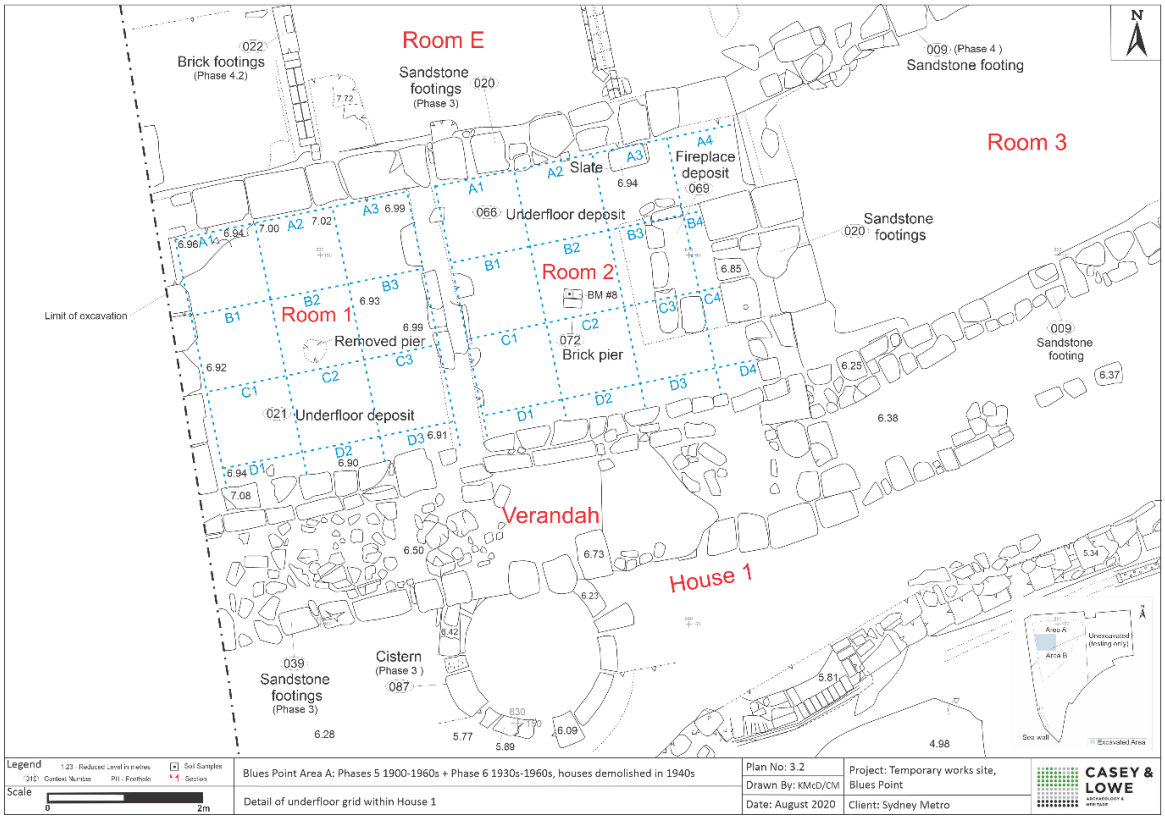

Figure 5.9: Plan of the underfloor grid within Rooms 1 and 2, House 1, showing underfloor deposits (021), (066) and (069).

5.4.3.1.2 UNDERFLOOR (21) – HOUSE 1, ROOM 1

The underfloor deposit (21) in House 1, Room 1 contained 489 MIC and 15 bone fragments. No shell remains were recovered from deposit (021). Results of temporal analysis indicate an 1860–1932 date range for the deposit, which is consistent with Phases 3–5 of site development. Key temporal indicators include wire-drawn nails (1853–1890), tinned pins (1880 TPQ), a bobby pin (1920 TPQ), and a 1932 Australian penny. The majority of artefacts (81.8%) are multipurpose items, such as beads (390 MIC) and miscellaneous hardware fasteners (9 MIC).

As Table 5.11 shows, functional analysis classified approximately 97% of the assemblage into ten identified groups. Approximately 80% of artefacts are beads (390 MIC) which are multipurpose items catalogued as jewellery, clothing or furnishing items. While the underfloor deposit (021) in House 1, Room 1 does not have the density of artefacts found in the Room 2 deposit (066), the diversity of artefacts contributes to an understanding of the room's use and the residents who used it.

As in Room 2, clerical items in Room 1's underfloor deposit indicate a degree of literacy amongst the residents, however, in Room 1 these items are limited to lead and slate pencils (6 MIC) with no mechanical pencils present in the assemblage. While these items are often associated with children's studies, the absence of ink-related clerical paraphernalia suggests adults also used these writing implements. Beyond writing implements, child-related items consist of two doll parts, a marble and a sewing thimble, which indicates children used this room, but to a lesser extent than Room 2.

Pins (12 MIC) and a thimble provide evidence of females in the house who engaged in sewing activities in Room 1. Other female-associated artefacts consist of jewellery parts (chain and beads). Tobacco pipes (2 MIC) and parts from the workings of a watch are most likely associated with the man/men of the household.

Food-related artefacts consist of porcelain teaware and a spoon. Serving tea to entertain visitors to the home was a customary practice that was widely accepted in Australian culture. Entertaining areas of the house were generally away from the private areas of the house, such as the kitchen, and happened in public rooms, such as the parlour or lounge. Therefore, it is probable that House 1, Room 1 was a public room. Bones in this underfloor deposit (021) (15 NISP) represent mainly food remains including sheep (6 NISP), rabbit (2 NISP) and chicken (1 NISP). Given the relatively small number of fragments recovered from this context it was difficult to assess any particular concentration of remains and they seemed to be fairly evenly spread throughout the room. No shell remains were identified in deposit (021).

Unlike House 1, Room 2, only one copper alloy tack is possibly associated with boat-building activities. Architectural elements (14 MIC) are mainly hardware fasteners (9 MIC) and window glass (4 MIC). While hardware fasteners were spread throughout the room, window glass was recovered along the western wall of the room (Squares C1–D1) indicating the presence of a window.

Results of functional analysis indicate that artefacts from this deposit (021) are typical of small finds found in a residential underfloor deposit and represent a familial residential occupation. While the use of this room is uncertain, the presence of porcelain teawares suggests it was used as a parlour to entertain guests at various times in association with drinking tea.

Spatial distribution analysis indicates that the highest concentration of artefacts was in D2 (Table 5.17). However, 92% of the artefacts (277 MIC) from this grid square are beads and as there are only three different types of beads, it is probable that the beads were part

jewellery part or were sewn on one garment/furnishing item. Factoring out the beads, spatial distribution of artefacts mainly accumulated along the periphery of the western and southern walls of the room. It may also indicate activities associated with beads, such as beading of clothing or accessories, was done close to where southern light entered a front room which was adjacent to the southern verandah overlooking the harbour.

Table 5.16 Spatial distribution plot of artefacts from underfloor deposit House 1, Room 1 (021) (Square A1 represent the northwest corner of the room).

SQ	1	2	3		Key	
A	3	3	5	**11**		0–10
B	20	3	9	**32**		10–25
C	39	35	2	**76**		25–50
D	25	300	16	**341**		50+
Total	**88**	**343**	**35**	**460**		

5.4.3.1.3 UNDERFLOOR (82) – HOUSE 2, ROOM A

Room A, part of a rear brick extension to House 2 was constructed c1880 (Figure 4.70). A remnant patch of underfloor deposit (082) was located in the centre and north end of the room. This underfloor deposit contained only a few artefacts (14 MIC) and sheep bones (4 NISP). No shell remains were recovered. Temporal data for approximately 62% of the artefacts (9 MIC) contributed to a suggested 1870–1926 date range. Key temporal indicators include a latticinio core swirl marble (1846–1926), a celluloid button (1869 *TPQ*), and toy dish (1870 *TPQ*). For this small assemblage, 85% of artefacts (12 MIC) were categorised into five functional groups. While there is a paucity of artefacts from this deposit, they provide a few insights regarding the activities associated with this room. A jug and an alcohol bottle suggest this was a room where beverages were consumed. Marbles and a toy dish suggest that children used this room. A pin may suggest sewing activities occurred here but was not a major activity undertaken within the room.

5.4.3.1.4 Area A Cistern (87)

A large cistern (087) was located at the southern end of House 1 (Figure 4.37, Figure 4.39). The backfill of cistern contained four layers of deposit ((090),(091), (094) & (095)) and three layers contained artefacts. The upper layer (090) contained 46 MIC, layer (094) contained three artefacts, and layer (095) contained two artefacts. Approximately 43% of artefacts from (090) contributed temporal information, most with wide 1820s–1920s date ranges. However, one aerated water bottle made by *Botany Glass Works* has an 1890–1906 date range, which

is consistent with Phase 5 site development. The variety of items within the deposit are consistent with rubbish disposal within a residential setting. Food-related items (13 MIC) represent the highest relative frequency of categorised artefacts and consisted of food preparation (Figure 5.10), food service and tableware items. Artefacts denoting other activities include literacy (lead pencil) and laundry/hygiene (handle to a laundry tub). There are also clothing items associated with occupants in the home: a button and a braces buckle.

There were no datable artefacts from (094) and (095). From (094), there is a rubber shoe, a possible tree nail and a fragment of timber. One timber offcut was recovered from layer (095).

Figure 5.10: Food preparation items found in the cistern fill (090). (l-r) grey graniteware kettle (#10701), cast iron cooking pot (#10702). 100mm scale. DSCN _3077. Russell Workman.

5.4.3.2 Area B

There are three Phase 5 deposits in Area B (311, 323 & 337).

Deposit (311) is the earliest cobbled roadway surface between the retaining walls (Figure 4.96). There are 4 MIC, including ceramic tableware (3 MIC) and fragments of a dark green alcohol bottle. The paucity of artefacts precludes in-depth analysis beyond a suggested 1845–1930 date range. Above (311) was unstratified fill (323), and artefacts were collected after machining of bitumen surface (307). Temporal data suggest an 1868–1930 date range for these items.

Deposit (337) is one of four accumulated sandy fills ((337), (338), (339) and (340)) in TT 21 at the base of the slope where the bedrock meets the reclamation fills (Figure 4.95). This

deposit contained 90 MIC and temporal data indicates an 1860s–1930s date range. The artefacts are mainly food (46.7%) and beverage (10.0%) vessels and bottles. This deposit notes a variety of transfer printed tableware and gilded bone china vessels (Figure 5.11, Figure 5.12). A variety of artefacts suggest the deposit was associated with residential occupation, including a thimble, children's toys, a hair comb, hair tonic, and perfume. Boat building hardware represented 12.2% of deposit (337) assemblage, including sheathing nails, nails and roves (Figure 5.13).

Figure 5.11: Gilded bone china tableware and teaware from context 337 (l-r). Top row: eggcup #5981, bowl #5485. Bottom row: tea leaf jug #5484 (2), cup #5486 (2). 100mm scale. DSC_4304. Russell Workman.

Figure 5.12: Examples of transfer-printed patterns from context 337 (l-r). Top row: Chain plate #5454, Asiatic Pheasat plate #4353. Bottom row: Rhine plate #5456 above #5455, pearl fallow dear can #5466. 100mm scale. DSC_4375. Russell Workman.

Figure 5.13: Metal nails and tacks from accumulated sand deposit (337) showing the difference in preservation between iron and copper alloy from the same archaeological deposit. (l-r) Top left: four nails #10737. Top centre: three iron nails #10739. Top right: iron nail #10738. Middle: two WD sq countersunk sheathing tacks #10736. Bottom row: WD sq nails - nail and conical rove #10725, #10726, #10727, #10728, #10729, #10730, #10731, #10732, #10733, #10734, #10735 (two). 100mm scale. DSCN_3088. Russell Workman.

5.4.4 PHASE 6 – Demolition of ferry wharf and cottages, 1940s-1960s

There are eight deposits associated with Phase 6 site development and all were located in Area A (Figure 4.99). Temporal and functional data for all Phase 6 deposits are shown in Table 5.17 and Table 5.18. The deposits are either clean-up episodes, demolition fill or bulk fill. The nature of these deposits or the paucity of artefacts from each precludes in depth analysis, therefore these deposits are characterised as:

- A sandy silt deposit (008) above bitumen (007) contained 18 MIC. Temporal data derived from machine-made bottles provide an 1950 *TPQ* for the deposit. While the paucity of artefacts precludes functional analysis, there are a few observations; all beverage bottles are for alcohol, a garden edging tile, and one copper alloy boat-building sheathing tack.
- Bulk fill (015) above sandy silt deposit (008) contained five artefacts, including four unidentified glass and stoneware bottle forms and a holloware fine earthenware vessel. The only datable artefact is the undecorated ceramic vessel (1830–1930).
- Demolition fill (016) was located in House 2, Room C and contained only four artefacts: a nail, a champaign-type bottle, a transfer-printed tableware vessel and a copper alloy sheathing tack that are associated with boat building activities.
- Demolition fill (019) in House 1, Room 1 contained 8 MIC. Temporal data was derived from diagnostic architectural elements that have an 1840s *TPQ*. These items include lime render and mortar and a possible slate lintel.
- Demolition debris (026) in House 1, Room 2 contained 16 MIC. Temporal data for 93% of the assemblage contributed to a calculated 1914–1966 date range. Temporal data for architectural elements (nails and bricks) indicate the structure was built or altered during the last half of the nineteenth century.
- Demolition fill (011) found in House 1, Room B, House 2/3, Room B and House 3, Room B. Since this demolition fill contained a low relative density of artefacts spread across three houses, artefacts from this deposit are considered together. There are 43 MIC from this deposit and approximately 70% of artefacts contributed temporal data that contributes to an 1870–1940 date range. Functionally, the highest relative frequency of categorised artefacts is architectural debris (41.9%), including nails (5 MIC), window glass (4 MIC), screws with washers (6 MIC), spikes (3 MIC) and galvanised sheeting (1 MIC). Also from this deposit are alcohol bottles (4 MIC), tableware (5 MIC), a smoking pipe, a toy doll and buttons (2 MIC).
- General clean up (025) within the front verandah of House 2/3 produced 17 MIC. Temporal data derived from 76% of the collected artefact (13 MIC) produced a calculated 1880-1930 date range. Artefacts were mainly transfer printed fine earthenware plates (6 MIC), clay tobacco pipes (2 MIC) and hardware fasteners (3 MIC).
- General clean up (038) from within the west end of the front verandah of House 1 contained 29 MIC. Temporal data for 62% of the assemblage (18 MIC) contributed to a calculated 1835–1930 date range. Food-related artefacts (6 MIC) represent the highest relative frequency of functionally categorised artefacts. Other artefact types include boat-building copper alloy nails (4 MIC), smoking pipes (4 MIC) and a lead pencil.

Table 5.17: Calculated date ranges and quantitative data for deposits associated Phase 6 contexts.

Phase	Area	Context	TPQ	TAQ	Total MIC	Datable MIC
6	A	008	1950		18	7
6	**A**	**011**	**1870**	**1940**	**43**	**30**
6	A	015	1830	1930	5	1
6	A	016	1853	1920	4	4
6	A	019	1840		8	3
6	A	025	1880	1930	17	13
6	A	026	1914	1966	16	15
6	**A**	**038**	**1835**	**1930**	**29**	**18**
Total					**140**	**91**

Table 5.18: Relative Frequencies for Functional Groups for Phase 6 Contexts.

Phase	Area	Context	Architecture	Beverage	Clerical	Economy	Food	Household	Household/ transportation	Multipurpose	Personal	Pharmacy	Recreation	Service	Storage	Transportation	Unidentified	TOTAL
6	A	008		11.1%			16.7%	11.1%		5.6%	5.6%	5.6%		5.6%	5.6%	5.6%	27.8%	**18**
6	A	011	41.9%	9.3%			18.6%	2.3%	2.3%	2.3%	4.7%		4.7%	2.3%			11.6%	**43**
6	A	015					20.0%										80.0%	**5**
6	A	016	25.0%	25.0%			25.0%									25.0%		**4**
6	A	019	62.5%				25.0%				12.5%							**8**
6	A	025	5.9%				35.3%	5.9%	5.9%				11.8%				35.3%	**17**
6	A	026	50.0%			6.3%		12.5%			12.5%		12.5%	6.3%				**16**
6	A	038	6.9%	6.9%	3.4%		20.7%		3.4%		3.4%		13.8%			13.8%	27.6%	**29**
																	Total	**140**

5.4.5 Phase 7 – Public Park, 1960s-2018

Five deposits are associated with Phase 7 site development: two in Area A and three in Area B. Temporal and functional data for all Phase 7 deposits are shown in Table 5.19.

5.4.5.1 Area A

There are artefacts from two clean-up contexts ((001) and (062)) in Area A. Context (001) was assigned to general clean-up activities. A total of 86 artefacts were recovered during this collection effort. Temporal data contributed to a calculated 1870–1960 date range. Context (062) was assigned to clean-up activities south of House 1 exterior up to retaining wall (061). Temporal data contributed to a calculated 1880–1960s date range. The variety of food, personal (comb, toothbrush), pharmacy (thermometer, laxative, cough remedy) and recreational items (smoking pipes, toys) are consistent with a residential setting. However, there are maritime-related copper alloy nails (5 MIC) that are associated with boat-building activities across this area.

Table 5.19: Calculated date ranges and quantitative data for deposits associated Phase 7 contexts.

Phase	Area	Context	TPQ	TAQ	Total MIC	Datable MIC
7	**A**	**001**	**1870**	**1960**	**86**	**68**
7	A	062	1880	1960	32	21
7	**B**	**301**	**1890**	**1934**	**205**	**139**
7	B	317	1870	1950	11	9
7	B	329	1960	1970	23	22
Total					**357**	**259**

5.4.5.2 Area B

There are artefacts from three contexts ((301), (317) and (329)) in Area B that are associated with Phase 7 site development. Context (301) represents general clean-up efforts across Area B that included 205 MIC. Temporal data for approximately 68% of the collected artefacts suggest an 1890–1934 date range. Artefacts are mainly food (32.4%) and beverage (20.1%) tableware and bottles. The variety of food, personal (perfume, toothpaste), pharmacy (ointment and cough remedy), and household (blacking bottle, ornaments) items are indicative of a residential setting. However, maritime-related copper hardware fasteners (nails, tacks, roves) are also associated with boat building activities across the area. In comparison with clean-up activities across Area A (Contexts 001 and 062), there is a paucity of recreational items (pipes and toys) in (301).

Located in Area B is an access road to the jetty and foreshore built by Stevens in the 1880s that had been resurfaced numerous times. Asphalt was used to seal one of the uppermost resurfacing efforts. Directly above the asphalt surface were two imported bulk levelling fills ((315) & (317)), but only (317) contained artefacts (11 MIC). Temporal data indicates an 1870–1950s date range for artefacts in the fill deposit. The paucity of artefacts precludes functional interpretation of the assemblage. Furthermore, this deposit is a fill episode, and it is unclear if the fill represents redeposited material which originated on or off the site.

A wall (328) of sandstone blocks was located in the southwest corner of the site. Abutting this wall was bulk leveling fill (329) that contained 22 MIC. Temporal data for 96% of the

artefacts strongly indicates a 1960s–1970 date range. Approximately 82% of artefacts are beverage bottles for beer, wine, aerated waters, soft drinks, and milk, suggesting the deposit may be a bottle dump (Figure 4.127). Also in this fill deposit are nails and roves associated with boat building.

6. Response to Research Questions

6.1 Introduction

A series of research questions were created as part of the 2018 Archaeological Management Strategy (AMS), based on 25 years of developing research questions for archaeological programs in Sydney CBD, Pyrmont, Surry Hills and Parramatta. It is not expected that the archaeological remains will be able to address every question, however the specific questions contribute to a broader research framework that can provide useful insights into understanding both the structural and artefactual remains. The full list of questions from the 2018 AMS are listed above in Section 1.6, and only the relevant questions which could be addressed by the results of the 2018 archaeological excavations are discussed below. Not all reseach questions can be addressed by the results of the archaeological program.

6.2 Residential Housing and Material Culture

6.2.1 Is there evidence for the nature of 19th-century housing in this part of Blues Point?

6.2.2 What evidence is there for the standard of living enjoyed by the earliest residents? Is there artefactual evidence for different standards of living between the houses occupied on the early manufacturing sites and workers housing?

An 1828 plan shows there were few houses on the north shore, and emphasises the rocky nature of the northern foreshore (Figure 6.1). Analysis of early maps show that there were a number of houses located along the harbour foreshore, with development starting further north around the township of St Leonards (now North Sydney). Houses pre-dating the 1863 subdivision plan were located along the 'main road' (modern Blues Pont Road), (Figure 2.8). The sandstone footing of three small cottages were uncovered on this Blues Point site; the earliest cottage (House 1) was built prior to 1857 with two identical additional cottages added by 1869 (Houses 2 and 3), (Figure 3.2).

Figure 6.1: The north shore around Billy Blue's 80 acre grant and nearby was steep and rocky and absent of any houses though planned strees are shown. *Map of that part of the North Shore of Port Jackson which is opposite to Sydney 1828*. NSWSA Surveyor General; NRS 13859, Maps and Plans 1792-1880, S.801, SZ467.

These three house had sandstone footings with later additions to the north of all three houses built utilising brick footings in the 1880s and 1890s. The three cottages remained extant until the early 1940s. House 1 was laid-out with two rooms on the ground floor (Room 1 and Room 2), House 2 and House 3 had a single main room (Rooms 3 and 4 respectively). All three houses had a second storey; it is assumed the available floor space in the upper floor was the same or similar dimensions to the ground floor space. This indicates all three houses had a similar floor space. The key difference between the original section of the three houses was the separation of House 1 into two rooms. This indicates the desire for separation of household activities. It may relate to the intentions of the builder to have a kitchen or family space with a more public space in Room 1. Two rooms up and two rooms down is a fairly common structure for terrace houses in post-Gold Rush Sydney. A similar style is seen with the contemporary CSR terraces across the harbour in Pyrmont.[10]

Table 6.1: The dimensions of Houses 1, 2 and 3.

House 1 floor space (m^2)	House 2 floor space (m^2)	House 3 floor space (m^2)
Room 1: 10.23m^2	Room 3: 22.09m^2	Room 4: 22.68m^2
Room 2: 10.89 m^2		
Upstairs: 21.12m^2	Upstairs: 22.09m^2	Upstairs: 22.68m^2
TOTAL: 42.24m^2	**44.17m^2**	**44.36m^2**

[10] Casey 2004; Casey & Lowe

In 1861 the average size of a Sydney house, a typical two-roomed terrace, was 10 to 11 square feet and were scarcely high enough for a man to stand erect; the floor is lower than the ground outside; the rain comes in through the roof, and filth of all kinds washes in at the door'.[11] Butlin calculated that the average house in New South Wales in 1861 had approximately 3 rooms while by 1900 it had increased to 5 rooms.[12] This figure suggests that the two-roomed terrace house identified by Kociumbas were less than the 'average' house as identified by Butlin. Nor does Butlin, in his analysis of house forms, refer to two-storey terraces but is more inclined to perceive them as freestanding houses which is not the general case in the expanding areas of Surry Hills and Pyrmont. Robin Boyd in his analysis of 19th-century house styles did not discuss the terrace house. Butlin also calculated that there were 1.5 persons per room in NSW and Victoria in 1861.[13] An implication of the above evidence is that the housing stock built prior to 1861 was smaller and possibly built of poorer materials while that built after 1861 is likely to be of brick or stone with at least three rooms and possibly more.

The square metre size of houses is a reasonable measurement of comparison in terms of expression of aspiration or the type of house the residence could afford. For a builder it is what they can afford to build. If it is to be leased then they create an income which means they not just dependent on their own labour. It also represent a capital investment of surplus money or future income (rent). The choices made by a tenant do not always maximise to their advantage. A tenant rents a house they can afford, in a location that is hopefully close to where they work. It may be smaller than is desirable but is likely to afford a reasonable level of accommodation. These types of observations on common practices and practicalities of housing in the 19th century, not just the physical archaeological remains or artefacts recovered from such houses, provides a broader context for this specific research question at the Blues Point site. Comparison with eight houses at the CSR site shows they are surpringly similar in size.

Interestingly the first house, House 1, was the smallest of the Blues Point houses, but only by approximately 2sqm^2, indicating they were all of a similar size (Table 6.1). When compared to the working- class houses and some larger middle-class houses at Pyrmont, the Blues Point ones are substantially larger than the 3-room terrace house in Area C by as much as 13.7 m^2 to 16.6 m^2. The 4 and 5-room CSR houses are larger by 2 to 12 m^2 than the Blues Pont houses. Two of the CSR Area A houses (17, 21) are closest in size to the Blues Point houses. In summary it means the size of the houses are close to the mean size of the Pyrmont house and are are consistent with the larger end of working-class house in the 1850s-1900 period.[14]

[11] Kociumbas 1997:76.

[12] Butlin 1964:221.

[13] Butlin 1964:216

[14] Please note data for this is relatively limited and not typically included in archaeological projects.

Table 6.2: List of all room sizes in the houses from the CSR site. Note the approximate predicted size of a compelte house either doubles it size or where the number of room is not double with a half the ground floor size third or fith room. Taken from Casey & Lowe 2000:68.

House #	Front Room	Sqm2	Kitchen	Sqm2	TOTAL House Sqm Ground Floor	Storeys/ # rooms	*Approx.. Total Sqm	Mean size / Area	Likely class
Area A									
21	3.6 x 3.2	**11.5**	3.60 x 3.2	**11.5**	**23**	2/4	**46**	**44**	**WC**
19	4.2 x 3.1	**13.0**	4.10 x 3.1	**12.7**	**25.7**	2/3	**38.6**		**WC**
17	4.20 x 3.3	**13.9**	4.16 x 3.1	**12.9**	**26.8**	2/3	**40.2**		**EC**
15	4.00 x 3.1	**12.4**	4.10 x 3.22	**13.2**	**25.6**	2/4	**51.2**		**MC?**
Area C									
1	3.37 x 3.8	**12.8**	3.5 x 2.75	**9.6**	**22.4**	2/5	**56**	**40.6**	**MC**[15]
3	3.73 x 3.2	**12.0**	3.23 x 2.16	**7.0**	**19**	2/3	**28.5**		**WC**
5	3.70 x 3.3	**12.2**	3 x 2.1	**6.3**	**18.5**	2/3	**27.75**		**WC**
7	3.30 x 2.86	**9.4**	3.30 x 3.20	**10.6**	**20**	2/5	**50**		**MC?**

When compared with 1860s Greencliffe, located to the east of the Sydney Harbour bridge, the Blues Point study area houses were all on a much smaller in scale (Figure 6.2, Figure 6.3).[16] Greencliffe was on the smaller scale which was quickly subsummed by later rebuilds indicating it was not of adequate size for the people who sought to live in such a prominent location at Kirribilli.

[15] Built and occupied by the notable Saunders sandstone quarry family.

[16] Casey & Lowe 1995.

Figure 6.2: Shows the original 1860s house, Greencliffe, which was three main rooms with additional two smaller rooms to the rear. Photo c 1865 by R. Hunt showing the original Greencliffe. Macleay Museum, University of Sydney.

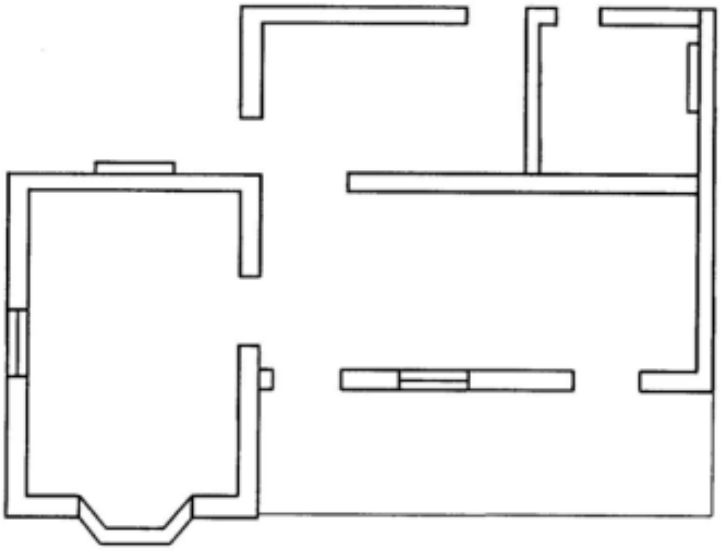

Figure 6.3: Footprint of Greencliffe as built in the 1860s. The layout of the rear rooms is largely conjectural. The positioning of the fireplaces is based on the historic photographs. Aspects of the archaeology of this site were recorded but the full footprint was difficult to determine wihtin multiple rebuilds and expansions on the house. Casey & Lowe 1995, Figure 13.

6.2.2.1 Artefacts

While there were no substantial artefact assemblages from Houses 2 or 3 to compare to the large volume of material collected from the underfloor deposits in House 1, it seems likely that all three houses were occupied by people of similar socio-economic status. The samples

of building materials and finishes including moulded plaster and tile, suggesting the houses were finished to a high quality with attention paid to decoration.[17]

Analysis of animal bone recovered from the site indicates a predominance of high-quality cuts of sheep bone were consumed in all three houses; a range of types of cuts were present (including lower-quality cuts), however full carcasses were not, suggesting meat was purchased elsewhere and carcasses were not broken down onsite.[18] Beef is a more expensive and rarer type of meat than sheep and it formed a small part of the main underfloor (066). Only 23 (NISP) fragments were found compared to 266 (NISP) for sheep and 322 (NISP) for fish. It was therefore eaten occaionsly but raterly. Also cattle bone is much larger than sheep and may not be lost so easily within an underfloor deposit.[19]

The substantially intact underfloor deposit from House 1 is of interest, as the occupation or underfloor deposits of contemporary houses (albeit larger and assumedly more wealthy) at 34-40 Union Street, North Sydney had been mostly removed and the assemblage added little new information regarding the daily lives of the inhabitants.[20] Limited archaeological evidence and artefact assemblages with research potential have been previously investigated at Euroka House (Graythwaite) in North Sydney[21] and Greencliffe (Kirribilli).[22] A large number of intact bottles, mainly alcohol and aerated water bottles were salvaged from a rubbish dump at the base of a hill within the Graythwaite estate, along with a smaller number of bottles for food stuffs, pharmaceuticals and perfumes, a fragment of a Chinese ginger jar and a porcelain 'bathing doll'. These artefacts are similar in type and style to those analysed at Blues Point and date to the late 19th to early 20th century, although the high number of wine bottles, especially champagne, suggests a fairly prosperous household that entertained regularly[23] in contrast to the more modest working-class families at Blues Point.

The typical archaeological paradigm for establishing standards of living is through the examination of artefact collections for quality goods as markers of socioeconomic status. Items from tableware to clothing to toys contributed to assessment of a household's standard of living. Discussed here are four categories of artefacts which contributed to an evaluation of standards of living: ceramic tableware, toys, jewellery and food remains (bone and shell).

6.2.2.2 UNDERFLOOR DEPOSITS – HOUSE 1

The underfloor deposits from House 1 provide a wealth of information on the occupants of the house and the use of various rooms within the house. Typically, a key status indicator in a household collection is type and quality of the ceramic tableware and teaware. However, only functionally and temporally diagnostic ceramic artefacts were analysed from the underfloor deposits, due to the large volume of undiagnostic body sherds recovered during the wet-sieving process.[24] In Room 2, ceramic tableware is limited to transfer-printed fine earthenware vessels decorated in a variety of patterns and colours (red, purple, blue and

[17] Volume 2, Building Materials report: p. 17.

[18] Volume 2, Bone report, p. 14.

[19] Volume 2, Bone report, p. 4, Table 2.1. .

[20] AMC 2015: iii, 71-80.

[21] Casey & Lowe 2014.

[22] Casey & Lowe 1995.

[23] Casey & Lowe 2014:30-35.

[24] Underfloor despoits are sieved to recover the small lost objects and not to collect fragementar and non-diagonistic glasa and cermaics.

green). Transfer-printed tablewares are the most common type found in colonial archaeological collections and were common to all socioeconomic classes. Their presence indicates only that the residents followed the fashion of the day in their selection of tablewares. However, in Room 1, no earthenware tableware were recovered but remains were found of fine porcelain teaware saucers (2 MIC).

Serving tea to entertain visitors to the home was a customary practice was widely accepted in Australian culture. Regardless of social status, most colonial households had porcelain tea service. Emulating middle-class and elite households, inviting guests to tea is one way a working-class lady could project an air of respectability. Servants were expected in a 19th-century middle-class household. However, tea was traditionally served by the lady of the house, and the lack of servants in working-class households was not apparent to visitors.[25] Entertaining areas in a house were generally away from the private areas, such as the kitchen and happened in public rooms used as a parlour or lounge. Therefore, the remnants of a fine porcelain tea set from the underfloor deposit (021) in House 1, Room 1 represent standard and customary practices for all socioeconomic classes. However, the quality of the fine porcelain teaware suggests aspirations towards middle-class status and display.

The gild-decorated bone china teaware and tableware, including service pieces were recovered from an accumulated sandy fill deposit (337), (Figure 5.11). While bone china was not quite as expensive as fine porcelain, the fact that these pieces are decorated with gilding suggests an association with middle-class aspirations rather than a working-class status. Further the gilded white bone china is perhaps the least expensive of the finer wares and are frequently found on archaeological sites in Sydney and Parramatta.[26]

At the CSR site teawares were mostly white gilded wares (27%), white glaze (17%) with linear ware (19%).[27] A graph of the general frequency of ceramic types in relation to the functional categories of plates (tablewares) and teawares indicates that there are some real frequency differences in which types of patterns were used to decorate which type of ceramic. Gilded wares were typically teaswares while undecorated white glaze could be either.

All jewellery items were recovered from underfloor deposits in House 1. These items are typical in style and form to those worn by working to middle-class people of the mid to late 19th century. Jewellery items represent an array of items worn explicitly by women and girls, including a ring, broken earrings, brooches, pendants and a bangle. Most of the jewellery items are inexpensive and consist mainly of a wide array of glass (paste) gems and inlays of different materials fallen from rings, pendants, brooches or buttons, but there also are several better-quality pieces. A jewellery or accessory item worn by men is a fob to secure a pocket watch. By the 19th-century pocket watches were a necessity for many men in working-class society, including the maritime industries in the Blues Point area and was an essential part of male attire in this period. Knowing the time of day may have been important for someone driving a ferry or taking goods to the north shore. It became an important part of managing working lives and completing activities in a timely manner.[28]

Buttons are both plain utilitarian types while the more ornamental types are akin to jewellery in their fashion statement. Buttons from underfloor deposits are typical of those worn in the Victorian period, most common are plain sew-through types. However, a proportion of more

[25] Lawrence and Davies 2010:294

[26] Casey & Lowe 2000b, Vol 3, Graphs 4, 5.

[27] Casey & Lowe 2000b, Vol 3, Graph 4

[28] Volume 2; Shackel, P 1993.

expensive or unusual types allow a glimpse of the wearer's sense of style and socioeconomic status.

The clothing fasteners found at the site, mostly buttons and studs, secured and adorned inner and outer garments of adults, adolescents and children of both genders. As a whole they were typical of those worn in the Victorian period, with most being common plain sew-through types. However, there was a proportion of more decorative or unusual examples that allow a glimpse of the wearer's sense of style and wealth and may represent more formal occasions rather than day to day attire. The black buttons, as well as the jewellery, indicate the adherence to fashions of the day as well as represent mourning attire.

Three buttons were identified as being bought from Sydney department stores. These stores changed from a smaller and more personal industry, with garments made to order, to a larger less individual based experience, where the garments were ready to wear and at a more affordable price for more people.[29] The few maritime/naval buttons suggest a naval connection, whether merchant or navy, or those fond of the sea. Dress hook and eyes and pins, discussed below, were also found in abundance. Before the introduction of the sewing machine in the mid-19th century most people made, repaired and altered their own clothing.

By the mid-19th century, children attained status worthy of their own material culture. Two categories of children's toys – marbles and toy dishes – also contribute to an assessment of the standard of living of the residents in House 1 over the fuller period of occupation. Children's toy tea sets gain popularity during the first quarter of the 19th century, but most of those found were refined white earthenware vessels. In the 1840s German porcelain toy tea sets were introduced at European Exhibitions, but these items were only affordable to children in wealthier households. By the turn of the 20th-century porcelain toy tea sets, like those for adults found in House 1, Room 2, were affordable to all economic classes.[30] Boys' toys were generally cheaply made but robust items such as marbles and lead soldier figures, however, recovered from underfloor deposits of House 1, Room 2 and House 2, Room A are German-spiral marbles that were the most expensive type available for purchase from the second half of the 19th century.[31]

Assessment of dietary patterns for occupants at this site is best evaluated by the food remains recovered from the underfloor deposit (066) in House 1, Room 2. Food remains are mainly from fish, sheep and shell. Fish were predominant in the diet of the house's occupants. Most fish could not be identified beyond 'fish', however, some genera and species were identifiable in the remains; this included red snapper (*Pagrus auratus*), bream (*Acanthopagrus sp*.) and a ray (Batoidea indet.). Interpretation of economic status of the inhabitants based on what they are must also consider wider economic conditions (commodity prices etc.). Sheep remains represent the primary meat choice and generally present high-quality meat, yet high-quality meat cuts (i.e. upper hindlimb) were not predominant, and lower quality cuts of meats were also present. Also, from these deposits are sufficient quantities (by weight) of shell food remains to contribute to assessing dietary patterns. Sydney rock oyster was the main dietary shellfish species consumed by the occupants of Blues Point, and likely remained the species of choice throughout the entire historic-occupation period. This diverse protein-rich diet demonstrates a household with sufficient economic status to have a varied diet.

[29] Bianchi, Bianco & Mahoney 2006; Houart 1977; Lindbergh 1999; Meredith & Meredith 2000; Newton 2008; Olsen Smith 1988. Classification of the items is based on well-known terms and dating used in academic, professional and other reputable literature.

[30] Decker n.d

[31] Carskadden and Gartley 1990:57

6.2.3 Evidence for cottage crafts or unrecorded professions or works in the area

A high proportion of the metal artefacts found in the study area were made of copper-alloy, including nails, tacks, roves and sheathing that were design and made for marine usage,[32] although boat building and repair activities are well documented in the historical record. The presence of marine-quality objects from the interior of House 1 may suggest that some boat building and repair activities occurred within the house, although they may also have entered the occupation deposits through other means.

The abundance of sewing-related paraphernalia found in the underfloor deposits of House 1, Rooms 1 and 2 suggests the occupants of the house may have been engaged in a cottage sewing industry of some sort. This may have been limited to repairs or involved making clothing for other people or making beaded accessories. This is supported by the variety of button and bead types. However, as these underfloor deposits potentially represent the activities in these rooms over several decades, they could equally represent the making and mending of clothing for the house's occupants. Comparative analysis will shed some light on this interpretation.

There were 1825 artefacts specifically associated with sewing and lacemaking: pins, thimbles and sewing and lace making equipment such as thimbles and awls. Almost all sewing items were small, easily lost below the floor or swept out with the dust into the yard. The overwhelming majority were pins (1778 MIC) which were catalogued in a systematic way to best ensure a minimum count allowing site comparisons with other household deposits excavated by Casey & Lowe. One such excavation was the CSR site in Pyrmont.[33] Seven houses were excavated with one house (15) showing a very different profile to the other houses due to the significantly larger number and range of sewing tools and equipment found. It was for this reason that it was suggested that the occupant or occupants of House 15 were undertaking commercial sewing. House 1, Room 2 (context 066) at Blues Point had a very similar amount of sewing paraphernalia to House 15, suggesting the occupants in this house were also undertaking a form of commercial sewing (Table 6.3).

Comparison of pins, buttons and beads, illustrates the sheer quantity found in House 1. The following analysis shows:

- Counts for pins in House 1 when compared with the CSR site houses reveal (Table 6.3):
    - Frequency of pins at CSR site was typically less than 70 in contrast with 1792 pins found in House 1. Only House 15 had 1596 pins. This indicates that House 1 has a very large count of pins when compared with six of the seven CSR houses.
    - The frequency of buttons (401) equates well with House 15 (397) while most other houses are 50 percent or less in counts.
    - House 1 has a large quanity of beads (990) with large counts in both rooms,a pattern not repeated in other spaces at Blues Point. The bead counts in House 1 are 400 more than the largest count at CSR (Houses 15, 3).

[32] Volume 2, Metal Report:10.

[33] Casey 2004: 38; Casey & Lowe 2000b

- When compared with the other CSR hosues the counts for pins, buttons and beads support the likelihood that, at least for one of the residents, sewing using pins, beads and adding buttons was on a cottage industry scale which was much larger than the counts for the most of the CSR houses.

Table 6.3: Analyis of main sewing artefacts within the Blues Point and CSR site. Percentages provide a direct comparaion yet the raw numbers wihtin House 1 are large, notably the 990 beads found in House 1.

House	Room	Pins	%	Buttons	%	Beads	%	Total	%
Blues Point									
1	1 (public)	12	*0.7*	11	*2.6*	392	*39.1*	**415**	*12.8*
1	2 (kitchen/ family)	1780	*98*	401	*95.2*	598	*59.6*	**2779**	*85.7*
2	A	3	*0.2*	1	*0.2*	1	*0.1*	**5**	*0.2*
2/3	Veranda east	22	*1.2*	8	*1.9*	12	*1.2*	**42**	*1.3*
		1817	***100***	**421**	***100.9***	**1003**	***100***	**3241**	***100***
CSR Site									
15	Whole house	1596	*81*	397	*35*	570	*28*	**2563**	*50*
17	Whole house	53	*3*	74	*7*	130	*6*	**257**	*5*
19	Whole house	13	*1*	127	*11*	192	*9*	**332**	*6*
21	Whole house	60	*3*	55	*5*	83	*4*	**198**	*4*
3	Whole house	136	*7*	196	*17*	521	*26*	**853**	*17*
5	Whole house	40	*2*	100	*9*	164	*8*	**304**	*6*
7	Whole house	70	*4*	174	*15*	374	*18*	**618**	*12*
		1968	***101***	**1123**	***99***	**2034**	***99***	**5125**	***100***

The next most frequent number of sewing items were the 16 thimbles. The sizes, indicate they were used by women and children. The styles, with slogans of endearment, suggest that they did not belong to professional tailors who would have used different (ring-style) thimbles to those found in the house.[34] But seamstresses who may have made clothing for local women were not the equivalent of professional tailors.

Slate pencils, madeup the majority of the clerical artefacts. For the children who lived in the houses at Blues Point, attendance at school may have been more regular once compulsory education was introduced in the 1870s. However, according to historical records only 66 percent of the juvenile population went to school by 1900. Although this was in part due to children working to help support their families, it resulted in many remaining illiterate. Slate pencils were used by children to write lessons on slate boards in the classroom at school and Sunday school. Many schools guarded their slate pencils and boards, some of which were

[34] Johnson 1982

attached together by string and held in cupboards when not in use.[35] To preserve the boards many were held in wooden frames. Towards the end of the 19th century these writing implements were increasingly seen as unsanitary but they were not generally replaced with more expensive lead pencils and paper until the 1930s, and even as late as 1960 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.

6.2.4 Where activities were undertaken within a house?

The thickness of the underfloor deposits within House 1 showed that deposit (021) in Room 1 was a maximum of 100mm thick, while deposit (066) in Room 2 was twice as thick, with a maximum thickness of 200mm. As Room 2 also contained the large fireplace, it is not unusual that this room saw the most use, most likely as a kitchen prior to the addition of the brick extension in c.1881. Even after the kitchen may have been moved to rear brick extension, the fireplace would have made this a natural gathering place for domestic and recreational activities in the house. As all three houses were two-storey it is logical to assume that the majority of household activities took place within the ground floor rooms, with bedrooms located on the upper floor.

Two rooms of House 1 provided an abundance of information on where activities were undertaken within the house. In Room 1, the absence of a fireplace indicates the room was not used for food preparation. The paucity of food-related artefacts and the low relative frequency of food remains suggest it was not used for dining. However, the presence of fine porcelain teaware (2 MIC) suggests this room was used for tea service and possibly entertaining. The room was used for sewing activities where beads were used, but to a lesser extent than Room 2 due to the much smaller counts of sewing equipment. The presence of pencils and toys indicate children's activities and tobacco pipes indicate men in leisurely pursuits most likely used the room.

Room 2 had a fireplace and served as the room where food was prepared and served and probably accounts for the fact that this room was the hub of household activities . Given the variety of artefacts recovered, it was perhaps where the family spent much of its time. After food preparation and dining, the dominant activities centred around sewing and needlecraft, as attested to by the abundance of pins, beads, buttons, and needlecraft tools. While sewing and needlecraft is very much a female activity it is likely the sewing represents the activity of women and girls within the household. On a note of caution it is known that sailors were also skilled at sewing, therefore the interpretation of sewing activities may also reflect the maritime nature of the site. School attendance was not compulsory until the 1870s[36]; however, the volume of pencils from this room suggests that this was the room where children addressed their school work. Smoking was a leisurely activity that the men of the household also engaged in this room. Medical treatment also occurred in Room 2, as evidenced by three extracted teeth that fell between the cracks in the floorboards.

The spatial analysis of Room 2 in particular shows the Square C1 (on the adjoining wall with Room 1) with the greatest number of artefacts. This could suggest that all activities were taking place in that location, however as part of the joining wall the light may not be adequate for the fine beading work that appears to have been done in the house. Another possibility is that C1 was where the adjoining door to Room 1 was located and items were swept in this

[35] Davies 2005; Early Office Museum 2000-2012.

[36] NSW *Public Instruction Act* 1880.

direction from both rooms. This may also be true for Room 1, with many items found in square D2 could this be a door to the verandah?

The difference in artefact numbers between Room 1 and Room 2 in House 1 was noticeable (Table 6.4, Table 6.5). Both rooms are part of the original building but used for different purposes. Room 2 appeared to be a focus of different activities, with artefacts related to sewing, beading, playing, and writing. Room 1 contained fewer finds. The room may have been used for fewer activities, it may have been cleaned more frequently, the boards may have been in better condition or covered, but the high number of artefacts in D2 is significant compared with the rest of the room and suggests a different use of the space or location of a door or window likely (Table 6.4).

Table 6.4: Spatial analysis of all artefacts from Room 1.

Square	1	2	3	Total	% of Total
A	2	0	0	**2**	0.5
B	16	2	7	**25**	5.9
C	34	30	2	**66**	15.5
D	23	294	15	**332**	78.1
Total	**75**	**326**	**24**	**425**	
% of Total	*17.6*	*76.7*	*5.6*	*100*	***100***

Table 6.5: Spatial analysis of all artefacts from Room 2.

Square	1	2	3	Total	% of Total
A	60	46	17	**123**	3.5
B	433	657	34	**1124**	32.0
C	1230	596	136	**1962**	55.8
D	54	157	96	**307**	8.7
Total	**1777**	**1456**	**283**	**3516**	
% of Total	*50.5*	*41.4*	*8.0*	*100.0*	*100.0*

6.2.5 What type of activities were undertaken within a house

- ***What, how and where to eat,***
- ***What to wear,***
- ***What was acceptable recreation for adults and children within working-class homes?***
- ***What to buy to provide an appropriate expression of the lives of a resident on this area, both as expression of personal and class identity?***

The artefact assemblage as a whole is typical of middle-class household and personal items of the Victorian period. Few fragments of expensive bone china or porcelain were identified, but the presence of export Chinese ginger jars and matching china in Chantilly pattern indicates care and taste in choosing objects. Modest, inexpensive pieces of jewellery included a wide array of glass (paste) gems and inlays from rings, earrings, brooches, pendants and a bangle, including several better-quality items. A total of 94 common, yet varied children's toys including lead soldiers, marbles, pudding dolls and porcelain dolls, were found as well as a large number of slate pencils show the child occupants were playing with specially purchased toys and being educated, indicating a high level of care and aspiration from their parents.

Among the 95 toys found across the site, the majority were marbles (67 MIC). Marbles were extremely popular children's toys in the 19th and early 20th centuries as they could be carried in pockets and played anywhere there was a flat surface, however this also made them easy to lose. Cheap marbles were made of plain clay while fancier and more 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. Most marbles, and in fact toys, in the early colonial years, were made in Germany until World War One stopped the export of such things.

All of the toys represent formal play, traditionally with girls being trained in socialising behaviour, and preparing them for motherhood and being a household hostess. Boys learning strategy with marbles and other games, and the art of war with toy soldiers in painted national uniforms, and also being encouraged to see this as legitimate employment and or opportunity. While wealthier men, often with a military background acquired considerable collections of entire tiny armies, even poor families were able to afford cheaper single soldiers. Some soldier figures were even regarded as being suitable for 'the more intelligent sort of girls'.[37] Many porcelain and other dolls continued to be owned by girls as they grew to womanhood, making it difficult to know which member of the family really owned them through their life cycle. They could also be objects placed on display to be admired, like the remains of numerous ornaments and figurines found in the houses. If the traditional view on gender and toys is used in the quantitative analysis it can be noted that 72 of the items were toys associated with boys and 23 associated with girls. Most of the 'boy's toys' were cheaply made but robust and easily accessible, whereas the so-called 'girl's toys' consisted of finer more delicate items.

[37] Baxter 2005; Chan 2012; Hillier 1986

6.3 Boat Building

One of Governor Phillip's instructions for the foundation of Sydney was that he should '...not on any account allow craft of any sort to be built for the use of private individuals...'.[38] The primary reason for this was to ensure that Sydney did not become a centre of trade and threaten the monopoly of the East India Company. The first British vessel built in Sydney was *The Rose Hill Packet* in 1789 at Underwood's boatyard on the Tank Stream at Circular Quay.[39] This vessel, however, was a Government-owned craft and was the first Parramatta River ferry. It was commonly known as *The Lump* because '...as from the quantity of wood used in her construction she was a mere bed of timber'. This observation is less a criticism of the skills of the shipbuilders but on the overcompensation in the construction due to the as yet unknown physical properties of the local timbers.

With the establishment of satellite settlements on the Hawkesbury River and Norfolk Island, the Government found it necessary to establish a yard where ships could be built and repaired. This started on the western side of Sydney Cove (Circular Quay, Museum of Contemporary Art) in 1796. This was the first formal shipyard in Sydney. A second, private, shipyard named Underwood's yard was built around four to five years later on the western shores of Sydney Cove.[40] Another yard, owned by Campbell & Co., was operating around 1810.

Up until 1813, no vessel had been built in the colony of New South Wales without the permission of the Governor.[41] After that date this restriction, and the restriction to trade beyond the limits of the colony, was removed which allowed for unhindered development of the Sydney shipbuilding industry. In 1833 the Government Dockyard, on the western side of Sydney Cove, was closed and as the upper part of the Cove silted up the focus for shipbuilding moved westwards to Darling Harbour (such as the Cuthbert, Barclay and Corcoran yards), Johnstons Bay and Pyrmont (such as the Thomas Chowne, J W Russell and Samuel Charles yards).[42] The government continued its direct involvement in the industry with the repair of the HMS *Blanche* in 1839 at Cockatoo Island, which employed 80 to 100 shipwrights.[43]

In the 1830s, with the increasing frequency of settlements along the coast north of Sydney, there was an increased demand for coastal shipping. This in turn led to a need for smaller tonnage vessels. Shipyards were also constructed along the major rivers of the Central and North Coast where good quality timber (cedar) was easily accessible. Newly launched vessels for these yards were loaded up with this timber and shipped to the main shipyards in Sydney. Australian-built vessels in the 1830s to 1840s were less expensive to build than British vessels, however, North American-built vessels were starting to appear on the market and these were considerably cheaper than the local product.[44]

Despite competition from American shipyards and no doubt stimulated by the Goldrush, by 1854 the colonial shipbuilding industry was at its peak. Associated with the yards were service industries as well as of course a substantial skilled and unskilled labour force. The

[38] Watson 1919: 97.

[39] Watson 1919: 98.

[40] Watson 1919: 100; 104; Casey & Lowe 2012.

[41] Proudfoot 1983:76.

[42] Watson 1919: 114.

[43] *The Australasian Shipping Record*, April/June 1994:90.

[44] Bach, J. 1976:76; Jeans 1974 60(3):158.

most intensive land uses for shipbuilding occurred along the northern foreshores of Darling Harbour with boat and shipbuilders also being established in Pyrmont and Balmain. Most of the service industries, however, such as shipsmiths, anchorsmiths, block and mast makers, chandlers and sailmakers, were located on the eastern periphery of Darling Harbour.[45]

Shipbuilding was one of Sydney's, if not Australia's, earliest industries. Directly it employed a large workforce and ancillary industries. Its products, the ships, carried supplies and people to settlements that were being created along the coast. The availability of coastal shipping facilitated the increase in settlements. In turn the resulting increases in the volume of the goods and passenger trade required more shipping which lead to the expansion of the shipbuilding industry in the 1840s and 1850s. Watson was not exaggerating when he stated in 1919, 'from the earliest days of settlement shipbuilding was commenced, and the development of the country was largely due to the locally built ships'.[46]

Corresponding with the increase in the number of vessels plying the southern and eastern coasts of Australia in the 1830s and 1840s was an unfortunate and disproportionate increase in the number of shipwrecks. The causes for this phenomenon have been sought in the dangers of a relatively unknown and unlit coastline, poor seamanship, building practices or the scarcity of quality materials (other than timber).[47]

With respect to the latter causes, the wrecks of early Australian-built vessels are rare, more often than not very poorly preserved, and as well as difficult to access for inspection.[48] The other source of archaeological information - early Australian shipbuilding sites - could provide some insights into the manner in which the vessels were constructed and the quality of their craftsmanship. Few archaeological investigations into Sydney shipyards from the 1830s to 1850s have been published or are otherwise available. Exceptions include Bass's shipyard in Barangaroo South (1830s-1853) and John Bell's shipyard (1840s-1875) Balmain.[49] On a national level the only early shipbuilding sites known to have been investigated in detail are the government yards in Port Arthur and Sarah Island.[50]

6.3.1 Can archaeological remains of boatbuilder George Barnett's premises and possible boatbuilding premises of James Glover reveal information about the variety and quality of boatbuilding that took place on the site over time?

While no structural remains of either Barnett's c.1871 boatbuilding shed or James Glover's premises c.1881 were located during the archaeological investigation, the analysis of the metal artefacts showed a high proportion of copper alloy nails, tacks, roves and sheeting that were suitable for maritime use. Generally, the size of the copper alloy objects show they were best suited to the construction and/or repair of small vessels rather than larger boats or ships. [51] The highest number of maritime items were recovered from Area B (ie along the harbour foreshore)[52] but it is interesting to note that a number were also recovered from the

[45] Proudfoot 1983:73.

[46] Proudfoot 1983:96, quoting Watson.

[47] Coroneos, C. 1991:2.

[48] Bullers 2006.

[49] Casey & Lowe 2012b; in prep.

[50] Casey & Lowe in prep:10.

[51] Volume 2, Metal Report:10.

[52] Volume 2, Metal Report:26

underfloor deposits in House 1, suggesting that either some repair or salvage activities occurred inside the house or more likely that maritime fittings were reused in a domestic setting. The low frequency of fittings recovered precludes a more in-depth analysis of the quality and/or variety of boat building activities at the site.

6.4 Maritime Infrastructure

Prior to Federation, much of Sydney's maritime infrastructure was held in private hands. These properties were built to suit the individual requirements of the private firms that owned them. In Darling Harbour, this cacophony of odd shapes and sizes led to congestion and inefficiencies on the waterfront. Though some individual larger firms may have fared well in this system, the economic benefits of the seaborne trade to the wider society were not fully exploited. Such concerns were raised by the residence of North Sydney in 1867.[53]

With the rapidly increasing dimensions of vessels, capital was needed to construct larger jetties with deeper berths was beyond the means of most of the jetty owners. The required sizes of these new jetties were such that a number of earlier facilities would need to be demolished before being replaced by a single jetty and the necessary cooperation between jetty owners was not automatic. The inability to react quickly to changes in shipping technology would eventually see Sydney become a less competitive port of trade.

The opportunity for change and direct government takeover of much of Sydney's waterfront came with the appearance of the bubonic plague in 1900. The resumption of the Sydney waterfront at this time was a momentous event, which defined the character of shipping, commerce, the lives of those who worked on the waterfront and of Sydney Harbour itself for the new century. The catalyst for this change was the poor condition of the waterfront and the health risk it posed for the city's inhabitants. Interestingly, this does not seem to have immediately occurred at Blues Point. This is not surprising in the case of the public wharf but is notable with regards to its privately owned eastern neighbours. Perhaps North Sydney was still too isolated and sparsely populated at the time to be considered a priority plague risk (or commercial interest), or perhaps the private wharfage in this area was considered to be more up to standard than those on the opposite side of the harbour.

The redundancy of this infrastructure with the construction of the Sydney Harbour Bridge in 1932 is also of interest. The site was transformed from an important transportation node to recreational space in a relatively short period of time as reliance on shipping and waterways was replaced by land transportation. It lost the value people such as Billy Blue saw as a way to be their own employer and earn a living during in the 1810s to 1830s.

6.4.1 Is there any evidence of the pre-1850s maritime structures and how were they built?

The investigation of the foreshore and associated infrastructure was only undertaken to a depth of RL2.8m, so while no pre-1850s jetties, seawalls etc were recorded, they may still survive buried at depth. In 1885 John Stevens application to reclaim land and construct a pile jetty was accepted, although it appears reclamation was underway before this date. Two retaining walls were recorded which were associated with the reclamation and land consolidation process, but no substantial remains associated with the later pile jetty and waterside sheds/stores were identified. A seawall was built along the foreshore south of the

[53] *Sydney Mail* 12 Jan 1867, 9.

reclaimed land and by 1884 the southern extent of reclamation corresponded with the current seawall. The current seawall along the foreshore was not impacted by the civil works and remains *in situ*.

Seawalls are vertical or near vertical structures running parallel to the shore, separating land and water areas and are designed to prevent upland erosion by tidal waters. Seawalls can also have a curved or stepped face. The term seawall is commonly used to describe a variety of shoreline armouring structures including revetments. Unlike seawalls the purpose of a retaining wall is to hold soil behind them. Their function is to separate land into different levels so it does not slide, fall or wash down a slope. Different phases of seawalls and retaining walls were identified during excavation along the western edge of the site. Prior to reclamation events (c.1870s/1880s) the walls below the high-water mark at Blues Point functioned as seawalls, with a stepped profile to protect from tides and allow access down to the water's edge (Figure 4.86, Figure 4.87). The walls, further north, were supporting or retaining the ground level of Blues Point Road. As more of the waterfront was reclaimed and development on the site expanded modifications were made to the earlier seawalls and new sections of retaining wall were added to existing walls. The archaeological remains in conjunction with the historic plans furthers our understanding of the seawalls along the western edge of the study area and provides a comparative example for the levels at which such structures were built in relation to the high tide line, utilisation of natural topographic featues in the location and construction of such structures, as well as construction materials and techniques in North Sydney and Sydney Harbour more broadly.

Archaeological remains of three different phases of additions to the north-south seawall were exposed during monitored machine excavation along the western edge of the study area, to the south of the south retaining wall.

6.5 Industrial Archaeology

Blues Point was assessed as having the potential to contain archaeological remains associated with industrial uses of the site, such as its use as a boat building facility from c.1868 (Section 6.14). Stevens' operation as a timber merchant from the site from c.1885, its occupation by the NSW Fresh Food and Ice Company from c.1902, and other unrecorded industrial activities typical of a waterfront site. The questions relating to the industrial uses of the study area relate to both the technological nature of the site, the evidence for work place practices, and as issues of urbanisation and the spatial arrangement of work and living areas. A set of questions was developed by Casey & Lowe in 1995 for an iron foundry site in Pyrmont and also for a brickmaking area in Surry Hills on three different archaeological projects during the 1990s.[54] These questions relate to the exploration of the layout of the industrial set up, and how work moved through the site. As no archaeological remains of the physical industrial spaces were uncovered, it was not possible to address additional research questions specifically relating to the technological aspects of the industrial uses of the site.

[54] Casey & Lowe 1995a, 1998, 2012d.

6.5.1 How was the life in the residences affected by being in such close proximity to an industrial complex?

Analysis of the 1871 and 1881 plans indicate that the houses were between 10m to 30m away from the boat building sheds, and approximately 65m away from the horse ferry and later car ferry to the south. Despite the close proximity, there is scant evidence for any influence of the industrial structures on the layout or activities within the residential houses apart from the maritime and marine nails, roves, screws and spikes.

The first development of this north shore area was the establishment of Billy Blue's ferry service in the 1810s. From this time onward, the area was closely associated with various maritime industries. While no artefactual evidence could be associated directly with maritime industries along the foreshore, there is significant artefactual evidence of these activities found scattered across the site. Copper alloy metals were used to produce hardware fasteners (tacks, nails, roves, and spikes) used in boat-building and were common in Australia from c.1835.[55] These hardware fasteners were recovered from 26 contexts that were mainly associated with residential occupations of the site. Besides their recovery during several clean-up efforts in Area A ((001), (025), (038), (062)), and on in Area B (301), hardware fasteners were found in the upper fill deposit (090) in a cistern (087), in a deposit under the front verandah of House 3, and most noticeably in an underfloor (066) in House 1, Room 2 where 136 copper alloy hardware fasteners were recovered, including nails, roves, screws and spikes. Also, from deposit (066), there were 277 copper alloy hardware fasteners identified as either household or maritime related. The majority of these fasteners are tacks (261 MIC), and during analysis, these items were considered have been used to secure floor covering, such as carpet or lino. Since this underfloor deposit also contained the highest concentration of maritime-related fasteners, it is also possible that these household/maritime fasteners were items associated with boat-building; however, their presence in this deposit would then raises other questions, such as was boat-building hardware stored within the house, or were activities directly related to boat-building industry conducted within House 1? Or was the owner of the house also working at or operating the adjoining boat yard on to the east, or event another nearby boatyard?

There is one deposit with possible association to the boat building industry. Nails and tacks (16 MIC) were found in an accumulation of runoff soils (337) along the road leading to Stevens' 1880 jetty. This deposit's hardware represents the most significant accumulation of these artefacts outside of the underfloor deposit (066) in House 1, Room 2. This deposit may have resulted from boat-building activities on the upper slope along the roadway or possibly use of maritime-related hardware in a residential setting.

6.5.2 Is this relationship exemplified by the presence or evidence of pollution within close proximity to the house?

During the reclamation of the foreshore between 1860 and 1880s black and grey industrial waste material was used to build up the ground levels. The waste material contained cinder or boiler ash, slag and coke fragments and was commonly used in the reclamation process due to its quick draining and easy compaction properties. This material may have been imported to the site from the Neutral Bay Gasworks that operated from 1876 to 1932,[56] or may have been transported across the harbour from the many industrial premises at Darling Harbour. A single deposit of blackened sawdust was recorded just above the original harbour

[55] McCarthy 2005:109

[56] https://www.harbourtrust.gov.au/en/our-story/harbour-history/history-of-sub-base-platypus/. Accessed on 08/12/2021.

sands which may have been generated onsite, possibly from boat building activities or from Steven's timber yard that operated onsite from c.1885. The industrial waste material and sawdust fills indicate that waste by-products were viewed as an opportunity to utilise available, assumedly cheap materials with little qualms regarding hygiene or pollution.

6.6 Landscape Archaeology

The exploration of how the landform of Blues Point was altered between the 1830s and the early 20th century is interesting as it testifies to the need for more land in specific locations and to provide adequate draught for maritime transport. The methods and means by which the landform was altered can tell us much about attitudes to waste and rubbish disposal, particularly the deposition of waste from other construction projects and harbour dredged sands. While a range of possible questions were posed the nature of the archaeological landscape at this site was quite different from other reclaimed sites nearby in Darling Harbour, resulting in a focus on a limited number of sites.

6.6.1 What was the nature of the original landform?

The underlying bedrock at Blues Point is Hawkesbury sandstone, with a flatish platform in the northwest corner of the study area where the houses were built, and stepped effect down towards the harbour. Where the bedrock was exposed and recorded it was found to fall approximately 3.5m from RL 7.14m in the northwest corner, down to RL 3.6m below the north-south retaining wall along the western boundary of the site. The steep topography of the underlying bedrock continued to the north and west outside the study area, with a perpendicular quarried rockface, approximately 9m high, visible along the northern edge of Henry Lawson Avenue, and a smaller outcrop visible on the western side of Blues Point Road.

A natural water channel or gully was uncovered running north-south through the centre of the site, where the nature water flow had carved through the softer sandstone bedrock. The movement of water across the site was probably seasonal, following heavy rain and flooding, but the steepness of the topography would indicate significant movement of water, as it flows rapidly down a steep slope leaving it less time to infiltrate the ground. The source of this channel would have originated beyond the study area, further up slope to the north following a path of least resistance before eventually entering the harbour foreshore. Evidence of repairs or strengthening of both retaining walls in the location where the walls crossed over the path of the channel suggest that seasonal water probably continued to follow the natural flow path, taking the easiest route down to the harbour, even after the site had been built-up and the attempts made to redirect the flow.

The nature of the original landform was quite difficult to identify in the archaeological record as so much of the bedrock showed extensive quarrying and modifications and the natural channel was mostly obscured by the later structures.

6.6.2 Evidence for shells, such as cockles and oysters, and what plant species were found in this area?

Unsurprisingly, the Sydney rock oyster was the most common species identified in the study area.[57] A limited range of species were recorded across the site, broadly consistent with both

[57] Volume 2, Shell Report: 7

rocky foreshore and sandy beach environments as those historically depicted in the area.[58] The species diversity and composition of the shells suggest the Sydney rock oyster shells entered the underfloor deposits as the result of subsistence discard, but at least half the shell assemblage was discarded for other reasons.[59] The majority of species were locally available, including Sydney rock oyster, Club mud whelk, Sydney cockle and Common periwinkle. Common periwinkles were found in large numbers and may have been collected from the surrounding rocky foreshore by children as curios or play items. A range of attractive or 'exotic' shells including tiger cowry, pearl shell, scallop and pearly nautilus were also found in the underfloor deposits were most likely collected as curios or ornaments from tropical waters, perhaps bought or collected by John Stevens during his time working in the pearl fishing industry in the Solomon Islands and Torres Strait Islands.[60]

Analysis of the pollen samples collected from various parts of the site found evidence for the native vegetation growing on exposed promontories around the harbour that pre-dates the European occupation of the site. The native vegetation included eucalypts and one or more casuarina species, likely to be shrubs or small trees given the exposed nature of the site, with an understorey of casuarina heath, sparse grasses, broom heath and raspworts.[61] Some samples contained pollen from rainbow ferns and hornworts which would have grown in damper parts of the site[62], either on the bedrock in close proximity to the natural channel or gully running roughly north-south across the area or on the damp sandstone foundations.[63] The types of plant pollen recorded shows that the vegetation was being created and managed by cool Aboriginal fire regimes.[64]

6.6.3 How has this part of North Sydney evolved over time?

The analysis of pollen collected from later phase features including the modified sands and backfill of the cistern shows that at least some remnant native vegetation, including eucalypts, casuarina and broom heath, survived in the area until the 1850s.[65] The analysis of the shell collected from the site did not reveal any evidence for change or impacts to the shellfish population from the increased population and/or mid-19th century reclamation in this part of the harbour.[66]

6.6.4 How many times was the landform remade within the study area?

The natural rocky foreshore landform was substantially remade four times:

1. 1817-1850 (Phase 3): northern retaining wall and levelling fills to consolidate the uneven ground prior to the construction of House 1 (pre-1850s). The western portion of the foreshore was probably remade at this time with the construction of the first seawall and jetty for Billy Blue's ferry service although these were not encountered

[58] Volume 2, Shell Report: 12.

[59] Volume 2, Shell Report: 13.

[60] Volume 2, Shell Report: 13.

[61] Volume 2, Shell Report: 23.

[62] Volume 2, Pollen Report:25.

[63] Volume 2, Pollen Report:20.

[64] Volume 2, Pollen Repor:24.

[65] Volume 2, Pollen Report:21-22.

[66] Volume 2, Pollen Report:15.

during the archaeological excavation and are likely to be buried at depth, if remains survive later land building.

2. c.1869 (Phase 4.1): northern retaining wall extended and levelling fills imported to build up southeast corner of Area A to provide secure construction platform for constructing Houses 2 & 3 and prevent a landslide and collapse of the houses.
3. c.1885 (Phase 4.2): bulk fills in the southern portion of the site (Area B) were used to reclaim the ground below the 19th-century high water mark. A second retaining wall was also constructed to create a sloping access road from Blues Point Road down to the foreshore.
4. 1960s (Phase 7): ground level substantially built-up to create public park.

Given the continual management of the natural water movement across the site, as well as the numerous attempts to flatten the steep grade of Blues Point Road, the landform within the study area would have been subject to many minor alterations and remaking events.

6.6.5 What different materials and means were used, and what was the depth of the reclamation at each stage? How different was this to the practices at other sites such as Darling Quarter, Barangaroo South, Darling Harbour Live and the KENS sites?

6.6.6 Where did the reclamation fill come from?

Little investigation of the reclamation fills was undertaken below a depth of RL 2.8m as there were limited impacts in these areas. The types of reclamation fills recorded consisted of layers of tightly compacted crushed sandstone, most likely quarry waste, and industrial waste material most commonly cinder or boiler ash. These materials may have been locally sourced; there is a stone quarry on the other side of Blues Point Road to the east and extensive quarrying on the north side of Henry Lawson Drive. The boiler ash may have come from the Neutral Bay Gasworks which operated from 1876 to 1932 and was located less than 3kms from the study area.

6.7 Summary of Research Questions

- The nature of the original landform was a flatish platform of Hawkesbury sandstone in the northwest corner of the study area where the houses were built, stepping down towards the harbour. The bedrock showed extensive quarrying and modifications and evidence of repeated attempts to manage the natural water flow and topography of the steep site.
- Evidence of native vegetation that pre-dates the European occupation of the site, and common local shell species was recorded across the site.
- All three cottages had similar sized floor space, but the ground floor of House 1 was divided into two rooms in order to more easily separate household activities.
- The houses were comparable to the average-sized Sydney houses of the 1860s and consistent with the larger end of working-class houses from the 1850s-1900 period such as those excavated at Pyrmont.

- A large artefact assemblage was collected from the underfloor deposits of House 1, but similar deposits were not present in House 2 or 3. Analysis of building materials and faunal remains from all three houses showed that they were likely all occupied by people of similar socio-economic status and the houses were finished to a high quality with attention paid to decoration and could afford a varied, protein-rich diet.
- Large quantities of sewing tools and paraphernalia including pins, buttons and beads suggest that sewing or dress making on a small-scale commercial or cottage industry level was occurring in the house.
- A small number of copper alloy nails, tacks, roves and sheeting were recovered from the site, generally of a size best suited to the construction and/or repair of small vessels rather than larger ships. The low frequency of fittings recovered precludes a more in-depth analysis of the quality and/or variety of boat building activities at the stie.
- The artefact assemblage as a whole is considered to be typical of successful working-class and/or middle-class households of the Victorian period. There was evidence in care and taste in choosing objects, such as matching china, varied but inexpensive array of jewellery and personal adornments and toys and slate pencils indicate a high level of care and aspirations for children living in the houses.

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