GLASS REPORT

3PS 153 MACQUARIE STREET

PARRAMATTA NSW

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FOR

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1.0 Introduction

Presented here are the results of the analysis for glass artefacts recovered from archaeological excavations at historical archaeological investigations at PS3 - 153 Macquarie Street Parramatta. This project was undertaken by Casey & Lowe on behalf of Parramatta City Council (October 2015 to March 2016). Glass from this project was catalogued by E. Jeanne Harris and Sue Hearne. The following report was written by E. Jeanne Harris.

The discussion that follows includes data on temporal placement, function, origin, technomorphology and reuse when applicable. This discussion facilitates the subsequent analysis of the specific contexts and assists in addressing site-specific research questions set forth in the research design.

1.1 The Glass Assemblage

The glass catalogue includes artefacts from 348 contexts and consists of 22,492 artefacts representing 4,287 items or minimum item count (MIC). For the purpose of this study bottle closures of all material types were included in this catalogue. Closures of other materials include copper alloy wire for securing corks, as well as foil seals that were placed over the corks. Also considered in this study are two types of hard rubber bottle closures and one threaded zinc cap.

Artefacts from 40 contexts were not catalogued and for an additional 23 contexts select artefacts were catalogued following procedures set forth by the project manager. Summaries of actions for these contexts are shown in Appendix A.

For the purpose of this study the glass assemblage is detailed by minimum item count (MIC). For any serious archaeological research purposes, artefacts need to be considered as objects rather than rubbish.[1] They must be quantified in such a way as to facilitate functional and temporal analyses.[2] Furthermore it is an essential requirement when comparing data from this study with contemporary archaeological sites.[3]

The initial discussion of the glass assemblage is presented as background for context analysis. This discussion is not intended as an analysis of the glass assemblage from the entire site, for the site is composed of several lots and many occupational episodes, representing numerous individuals over time. The artefacts cannot be lumped together in one mega-assemblage that provides any substantive analysis that will contribute to the reconstruction and understanding of the site's history.[4] This discussion begins with discussion of vectors of use. Functional and temporal data are the basic components of any artefact analysis. For the purpose of functional analysis items were grouped in a series of general use and specific use categories. Standard typological methods were applied as a prelude to chronological reconstruction and chronological data were incorporated into functionally grouped artefact discussions.

1 Sussman 2000, pp. 96–103.

2. Casey 2004: 27–43.

3 Davies 2004, p. 230; Crook et al. 2002: 26–38.

4 Miller 1991.

1.2 Methodology

Artefacts were catalogued according to a system developed by Dr Mary Casey. Information within this catalogue provided data on shape, function, material, completeness, count, minimum item count (MIC), description, dimensions, conjoins, product, manufacturer, reuse, and temporal placement.

2.0 Glass Typology and Chronology

Manufacturing techniques are different for many glass forms. Therefore, techno-morphological discussions for each will be conducted separately and are organised into categories (Table 2.1).

Table 2.1: Categories of glass manufacturing technologies.

Category	MIC
Bottles/jars/vials	3250
Tableware/ornamental items/ lighting	365
Window glass	342
mirror	4
pharmaceutical paraphernalia	6

2.1 Chronology

Modern blown glass technology, discovered sometime between 27 BC and AD 14, changed little until the late 19th century: a glass blower took a blowpipe, dipped the end into a pot of liquefied glass, turned it around to collect a batch on the blow pipe, put the other end of the blow pipe in his mouth and blew air into the batch while forming the exterior of the batch to the desired shape. In this manner bottles, tableware, lamps, window glass, marbles, etc were formed. Over the centuries specialised tools, such as paddles, moulds, scissors, among others, were developed for each specialised aspect of the industry. Many of these tools provide date-specific information. The basic technologies are discussed separately below.

Manufacturing evidence can appear anywhere on the bottle, although the base and finish are the main areas where changed technology left its mark. These are also the more robust parts and survive best if the bottle is broken. Undifferentiated cylindrical bottle fragments retain seam lines but it is difficult to count whether there are two or more per original bottle.

2.1.1 Bottles

There are 23,277 glass artefacts representing 4,297MIC. Approximately 70 per cent of the glass (3044 MIC) provided temporal information, if only about the possible manufacturing date of the artefact itself. Dating of materials is the primary level of analysis. Establishing defined date ranges for discrete deposits from this excavation is key to any further analysis, as the date of use and deposition can differ significantly from manufacture. For without this base data, many subsequent analyses would have little meaning.

Standard typological methods were applied as a prelude to chronological reconstruction. Artefacts then were assigned dates through comparison of identified artefacts with others having documented use-popularity patterns. These dates were further enhanced by documented temporal information that was available for manufacturers and product manufacturers. All datable artefacts have a *terminus post quem* (*TPQ*) or a date when the item was first manufactured or a *terminus ante quem* (*TAQ*) or an end date for manufacture. During context analysis TPQs are graphically represented. These tools form the basis of statistical data that aid in calculating chronological placement for contexts.

Glass artefacts were dated primarily by reference to manufacturing attributes. During the mid- to late 19th century, advancements in bottle manufacturing technologies developed at such a rate that documented diagnostic attributes serve to provide tight chronological data. These attributes are well-documented in records and archives of leading bottle manufacturers. Documented manufacturer's marks evident on glass bottle further serve to establish date ranges (Appendix B).[5] Finally, documented trademarks for product manufacturers also aid in establishment of temporal placement for bottles (Appendix C).[6]

2.2 Bottles

Bottles are one of the few commercial containers that survive as artefacts in the archaeological record. In this study there are 3258 bottles. Comerical containers provide insight into consumer choice in foods, beverages, medication, perfumes, cosmetics, etc. Much of the current research in historical archaeology depends on the interpretation of bottles.

A manufacturing typology for glass bottles is not simple. The innumerable combinations of the many technological attributes must be considered during the identification of individual bottles. For the purpose of this study these attributes are grouped into four basic diagnostic categories: mould type, empontilling method, finishing techniques and colour. These attributes represent processes used in bottle manufacture from the mid-18th century.

For each bottle formal attributes were noted, including size, shape, colour, weight, function and temporal information. In association with other artefacts in a provenance, bottles suggest patterns of use and preservation. The bottle is one of the most common of glass artefact types recovered from archaeological sites. Therefore, it was not unexpected that bottles represent approximately 76 per cent of the 3PS glass assemblage.

The term "bottle" was used throughout this discussion to represent commercially manufactured glass storage containers, such as bottles, vials and jars. Bottles contributed to both the temporal placement and the use (function) of the site. Chronological data for bottle glass were based on advancements and/or changes in manufacturing technology over time. Recognised bottle shapes enable identification of products consumed by the occupants of a site, which help answer questions about trade and economics. Patented shapes and documented manufacturer and/or bottler embossments contribute chronological data and are used to address questions on consumer choice and market access.

2.2.1 Bottle Chronology and Manufacturing Technology

From the time of British colonisation until the late 19th century Australia's primary source of bottles and bottled products was Great Britain. Therefore, the focus of this chronological study of bottle

[5] Toulouse 1971; Boow 1991.

[6] Baldwin 1975; Fike 1986; Deutsher 1999.

glass was the British glass industry; its technology and factors that affected it. From the mid-18th century to mid-19th century there was a dichotomous development in the technology of bottle glass. For 100 years (1746–1845) British excise duties on common green bottle glass was 1/8th that levied upon flint glass.[7] As a result two- and three-piece moulds were developed for bottles made from for higher taxed glass that produced thinner, lighter bottles.[8]

Alcohol bottles

Approximately 34 per cent of the bottles (1099) in this collection are commercial containers for alcohol, including beer/wine (324), champagne (255) and gin/schnapps (160). Thirty per cent of alcohol bottles are cylindrical British beer/wine bottles that were made from common green bottle glass that range in colour from dark green (black), olive, to medium green.[9] These all-purpose alcohol bottles were often reused for cordial, aerated water and other household products.[10]

From the mid-18th century to the mid-19th century these bottles were manufactured using the standardised technology of the time, however, during this period cylindrical beer/wine bottles underwent major and minor changes in shape and size of the finish, neck, shoulder, body and base.[11] Studies of these forms provide date ranges that were established through datable seals and from dated archaeological contexts.[12] Based on the results of these studies, characteristics of finishes (lip and rim) and base (heel, pontil, push up), as well as shape and size of neck, shoulder, body and base contribute, alone or in combination, to the temporal placement of these bottles. Conical push-up bases (with ridges around the push-up) (1820–1870) were the most common datable characteristics observed for cylindrical beer/wine bottles in this collection. Dates for other beer/wine bottles were established by the type of empontilling method used to hold the bottle during the finishing process and the finish process itself. Chronological data for British beer/wine bottles datable attributes is shown in Table 2.2.

Table 2.2: Chronological data for British beer/wine bottles.

Technomorphology	Date Range
Conical push-up	1790–1870
Dome shaped push up with sand pontil	1720–1870
3-part shoulder height mould with dip mould body (including Rickett's patent)	1820s–1920
Form tool finish	1850–1920

Champagne bottles have a separate technological chronology. Based on manufacturing technology developed in France, these bottles are designed to withstand the pressure produced by the effervescing wine. The deep reinforced push up evolved in three stages from 1760 onward. Early technology until about 1800 involved the use of an empontilling tool, but from the 19th century onward a snap case or similar holding devise was used during the finishing process.

Gin/schnapps bottles or "Dutch gin" bottles also have a separate technological and stylistic chronology that began in the seventeenth century. By the time of Australia's colonisation, the

[7] Lardner 1832, p. 151.

[8] Boow 1991, p. 115.

[9] Colour cannot be used in assigning temporal placement of these bottles, as the composition of the glass was determined by each manufacturer's preference.

[10] Davies 2004, p. 238; Carney 1998: 80–93.

[11] Jones, O 1986, p. 6.

[12] Dumbrell 1992, p. 134: Noël Hume 1970, pp. 63–68.

tapering squarish bottle with a 4-point resting base was well established. Changes in from the wide pig snout lip shape (until 1850) to the tapering flat-sided lip shape (1800–1900) were gradual. Also, there was a gradual change from a blow pipe pontil to a snap case type holder that was started circa 1800. About 1850 various symbols began to appear on the base of the bottles. To date research is ongoing into these symbols, but it is likely that they are trademarks of a sort. Other chronological tools for dating gin/schnapps bottles involve the irregularity or concavity of walls and the degree of tapering of the body from shoulder to base. These factors need to be considered with the depth of the push up, the presence or absence of symbols and the manufacturing technique and shape of the finish.[13]

Aerated Water Bottles

Aerated water bottles are readily recognised by their thick glass body and finish, made thus in order to withstand the gaseous pressure of the product. Throughout the 19th century there were innumerable patented aerated water bottle forms. Three of the most notable patented types are found in the 3PS glass assemblage. One of the earliest was the torpedo-type bottle (62) identifiable by its tapered ovoid shape. Often referred to as a 'Hamilton Patent', the torpedo bottle was manufactured in England since 1809. With an internal ebonite stopper, the 1876 Lamont patent bottles (448) and stoppers (69) were the most abundant bottle type in the assemblage. The 1875 Codd patented bottles (15) were the first of a series of patented aerated water bottles with an internal glass marble-like stopper.

Other commercial bottles

Throughout the 19th century bottle technology advanced steadily for other bottle forms. By the end of the 19th century glass containers were mass produced, relatively inexpensive and consequently readily disposable. Therefore, they became increasingly popular as packaging for all manner of commercial products, resulting in an ever-increasing frequency of container glass entering into the archaeological record. Chronological data for manufacturing techniques are shown in Table 2.3. These techniques form the basis for dating bottles in the collection from the mid-19th century to early 20th century.

Table 2.3: Chronological data for 19th century bottle glass.

Technomorphology	Date Range
Finishing tool	1820–1920s
Post bottom mould	1820s+
Cup bottom mould	1850+
3-part moulds (Ricketts type)	1820s–1920s
Bare iron pontil	1840s–1870s
2- or 4-part vertical moulds	1850s–1920s
Internal ledge finish	1850–1910

2.2.2 Table glass

Tableware represents approximately seven per cent of the glass assemblage. Until the early 19th century manufacturing methods in the glass industry as a whole were predominately mouth-blown

[13] McNulty 2004.

processes. During the 19th century and early 20th century the technology slowly progressed until by the 1940s glassware was predominately machine made. Foremost of these advancements was the development of pressed glass tableware introduced in the 1820s. This technology opened the market to middle class households by providing inexpensive imitations of prestigious hand-cut wares.

Decorative techniques for glass tableware also provide temporal information. Foremost of these advancements include:

- Acid–etched (1850)
- Mechanised needle etching for fine design work (1860s)
- Plated etched (1870)
- Enamelling (1880s)
- Silver bonding (1880–1930)

Technology for traditional cut glass was also affected by these advancements. Traditionally, cut-glass tableware was mouth-blown and then decorated by wheel cut or 'etched' designs. By the late 19th century vessel blanks were mass produced and then current cut designs were crafted.[14] The fledgling Australian glass industry did not start until the mid-19th century and then primary production was commercial containers (bottles and jars). The importation of undecorated tableware, called 'blanks', was common practice by local craftsmen. *Crown Crystal Glass* (1926), a subsidiary of *Australian Glass Manufacturers*, was one of the earliest Australian firms to successfully compete for the domestic glass tableware market.

Glass tableware patterns and styles

Hundreds of books have been written about glassware patterns – naturally, the most common of these are collector books. These books are useful in artefact analysis only when a sufficient portion of the vessel is present. [15] More useful are references that detail the evolution of tableware styles and discuss use-popularity trends throughout time.[16] Use-popularity patterns for some design elements for pressed glass tableware provide further temporal information (Table 2.4).

Table 2.4: Pressed Glass Design Elements on Tableware from 3PS.

Design Element	Date
Star burst on base	1830 *TPQ*
Panels on vessel body	1830 *TPQ*
Pressed design on stippled ground	1860 *TPQ*
Brilliant type pressed pattern	1890 *TPQ*

2.2.3 Flat Glass

Window glass

Window glass represents eight per cent of the glass assemblage. During the 19th century there were two manufacturing techniques for production of window glass: crown glass and broad glass. Crown

[14] Jones, O. 2000: 174.

[15] Bates 1910; Percival n.d.; Evers 1998.

[16] Jones, O. 2000; Jones, O et al. 1985; Noël-Hume 1970; McKearin & McKearin 1948.

window glass was thinner and finer than its contemporary broad glass, which was commonly described as inferior to crown glass.[17]

Plate glass was originally developed by the French in the 17th century. English polished plate glass was first processed at Ravenshead in 1773. While use of plate glass was unlimited in both household and commercial settings, it was commonly used for mirrors during the 19th century.

Patterned glass evolved from plate glass. In 1847 James Hartley patented a process by which one side of the pane was impressed with a pattern.[18] This glass, which was often made in colours, was used to wholly or partially obscure view. A later form of this plate glass, developed in the 1880s was prismatic or stallboard light glass with rows of triangular ribs that refract light rays deep into a room and thus improve lighting.[19]

Mirrors

Glass mirrors date from the 13th century. It was not until the 19th century that technology was developed for coating the backs of mirrors with metallic silver. The inventor of this process is much disputed between countries, but the most probable inventor of 'silver' mirrors was Justus von Liebig who published an article in 1835 on his process. This discovery seemed to galvanize the mirror production industry, making mirrors affordable to most socio-economic classes.

2.2.4 Pharmaceutical Paraphernalia

For the purpose of this study all artefacts related to medicine were functionally classified as 'pharmaceutical' when in fact many types of artefact subsumed under this functional class are medical equipment used by hospital staff, medical practitioners and veterinarians, as well as individuals who self-medicated in the privacy of their homes. This type of artefact includes equipment used in treatment, such as hypodermic syringes which were developed in the 1870s. There is one glass hypodermic syringe in the 3PS assemblage.

[17] Lardner 1832: 114-148.

[18] Boow 1991: 108; Lewis, 2021: Section 11.05.c.

[19] Neumann 1995: 189.

2.3 Function

Artefacts recovered from the site also were examined on the basis of function or original intended use. Functional classification enables artefacts to be clustered into groups so that statistical analysis of these clusters provides interpretive data on the site. Functional analysis categorised the 3PS glass artefacts into eight identified groups, as shown by relative frequencies in Figure 2.1

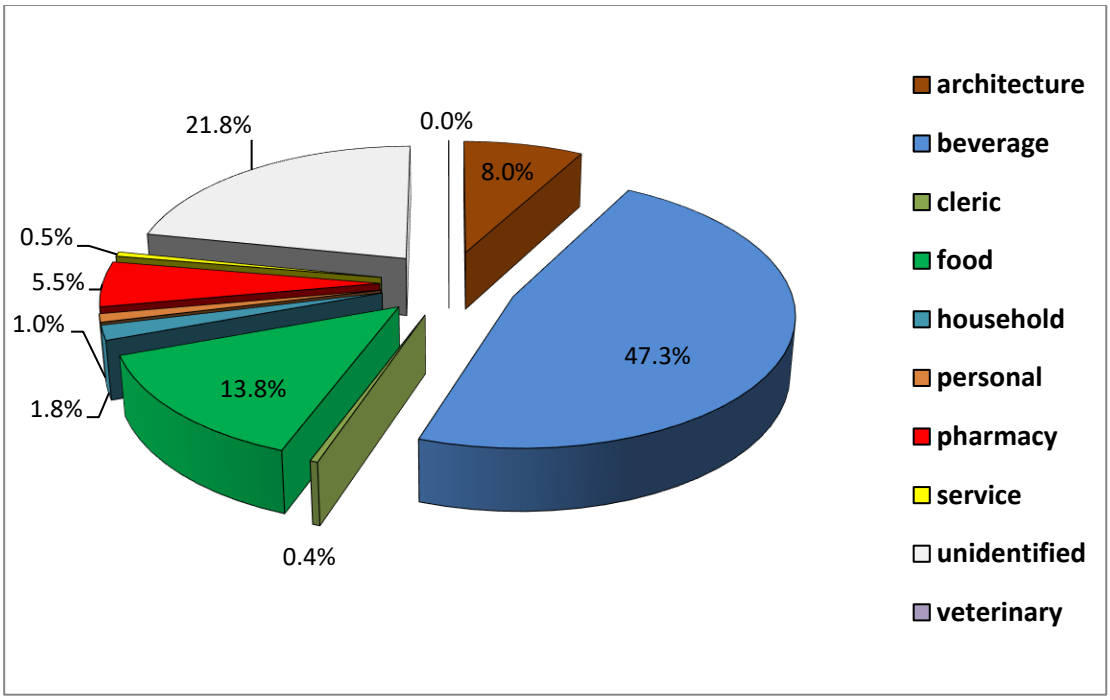

Figure 2.1: Relative frequencies of glass artefacts by function from the 3PS site.

For comparative purposes, Figure 2.2 shows the relative frequencies of glass from the 15 Macquarie Street project, another Parramatta archaeological investigation conducted earlier by Casey & Lowe. The glass was analysed using the same functional classificatory system employed at 3PS. As Figure 2.3 and Figure 2.4 show, there are remarkable similarities in the relative frequencies of many functional categories. Beverage containers are the highest functional group represented in both collections.

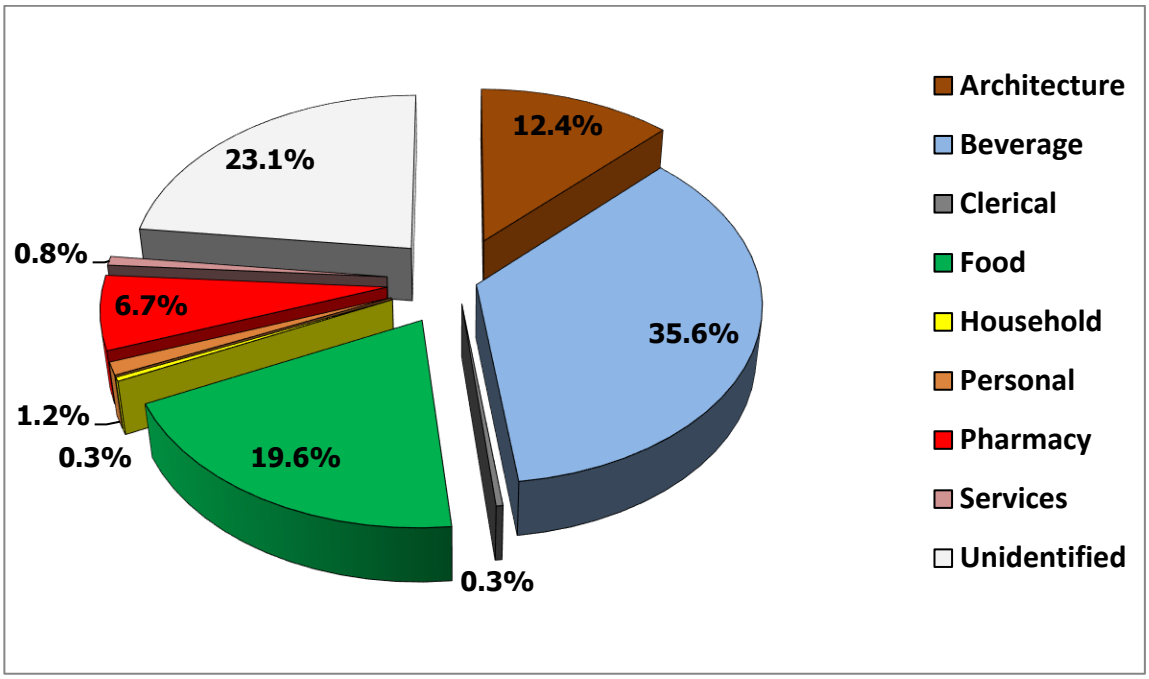

Figure 2.2: Relative frequencies of glass artefacts by function from the 15 Macquarie Street, Parramatta archaeological site.

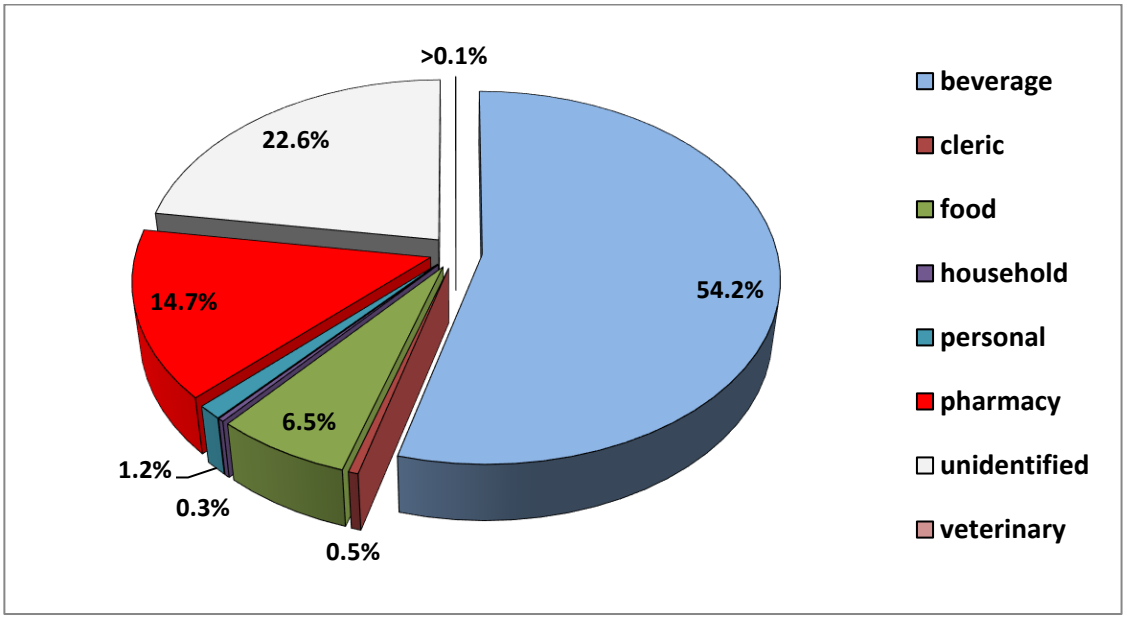

Figure 2.3: The relative frequencies of bottles by general function from 3PS.

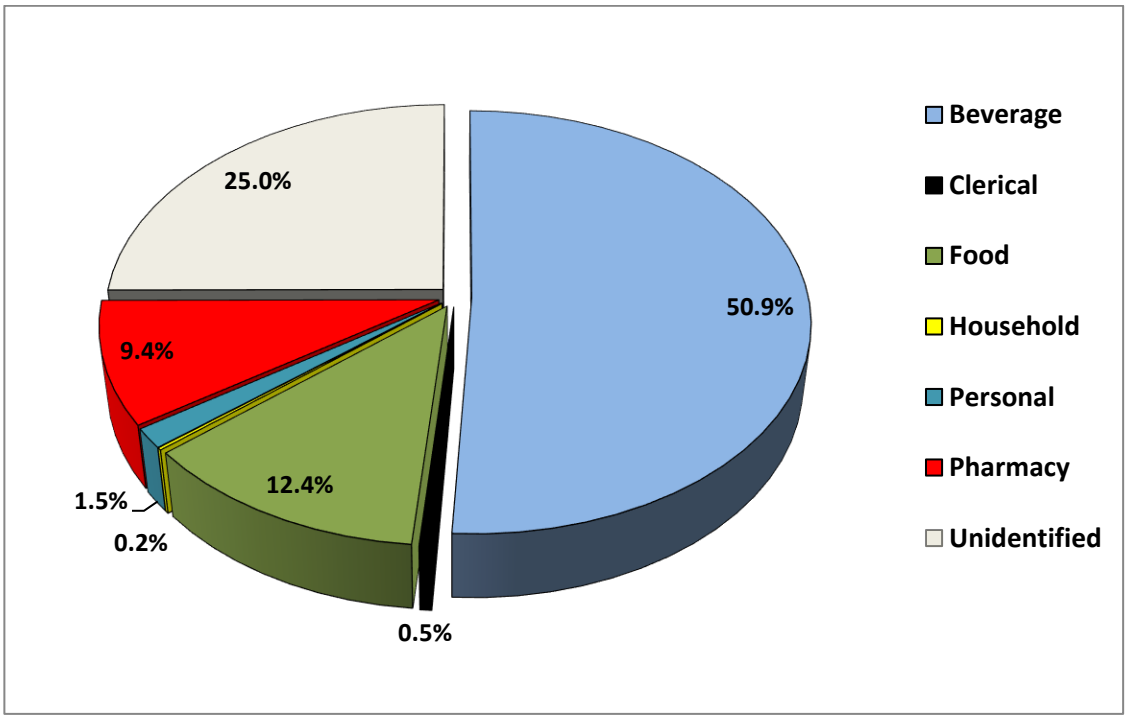

Figure 2.4: Relative frequencies of bottles by general function from the 15 Macquarie Street site.

3.0 Context Analysis

Glass artefacts were recovered from 348 contexts across the site. The site was divided into four main excavation areas (A, B, C and D) that corresponded to the 19th-century allotments. Area A was so large that it was subdivided into Area A and Area A South. This analysis is organised by these excavation areas and then by historical phases of site development within each area. Within each phase, key contexts have been selected to provide both temporal and functional information that will contribute to the interpretation of the phase, area and site as a whole.

For clarity of presentation the following conventions have been observed while writing this analysis:

- Artefact quantities represent minimum item counts (MIC).
- All artefact quantities are represented by numerals.
- All relative frequencies are designated by '%'.
- Context numbers are represented in brackets '[ ]'.
- Throughout this report the term 'artefact' refers to glass artefacts only.

3.1 Area A

Glass artefacts were recovered from 150 contexts identified in the centre section of Lot 30 (Area A). Analysis results are organized by phase. Six phases of site development were identified for Area A and Area A-South, as detailed below. For Area A and Area A-South six main phases of site development were identified (Table 3.1).

Table 3.1: Archaeological Phases Identified for Area A and Area A-South.

Phase 1	Natural landscape and Aboriginal occupation.
Phase 2	Aboriginal occupation.
Phase 3	1788 to c.1819 Beginnings of British Settlement: Government farming, clearing and agriculture.
Phase 4	c.1819 to 1880s Early occupation.
Phase 4.1	c.1819 to 1850s Construction and early house occupation (including pre-house levelling fills).
Phase 4.2	1850s to 1880s Later phase occupation and extension.
Phase 4.3	1870s to 1880s Demolition of the early cottage (House 4) by 1884.
Phase 5	1880s to 1960s Brick houses (Cranbrook, Northiam and Harleyville).
Phase 5.1	1888 to 1950s Levelling fills, construction and occupation of Cranbrook.
Phase 5.2	1950s-1960s Demolition of Cranbrook (House 1).

3.1.1 Phase 1 Natural Landscape

Natural Subsoil [16190]

The paucity of temporal information for artefacts from this deposit precludes more than a suggestion of a c.1850s date. Functionally classified artefacts include beverage and food containers, as well as a tableware item and fragments of window glass.

3.1.2 Phase 2 Aboriginal Occupation

This phase of occupation in Area A is not addressed in this report.

3.1.3 Phase 3 Beginnings of British Settlement 1788-c.1819

There are no glass artefacts associated with deposits identified for this phase of site development.

3.1.4 Phase 4 Construction, Occupation and Demolition of House 4 c.1819-1880s

Levelling Fill

Prior to the construction of House 4, two episodes of levelling fill contained artefacts: [16214] 3MIC and [16193] 13MIC. Temporal information from these items suggests deposition for both deposits occurred prior to 1850.

Historic topsoil

Two historic topsoil deposits contained glass artefacts. The modified historic topsoil deposit [16120] contained 340 MIC and the original topsoil deposit [16244] had 7 MIC. Observations on each deposit are discussed below.

Modified historic topsoil [16120]

Deposit [16120], which represents the modified historic topsoil in Area A, is evidenced in the yard areas and below the southern and western verandahs. This context was excavated in squares across Area A and the spatial distribution of glass artefacts is shown in Appendix E. There are 1337 glass artefacts, representing 340MIC from this deposit with the majority consisting of bottles (218) and window glass (60). Approximately 40 per cent of these artefacts (134) provided temporal information with the following key temporal indicators:

- 1788–1830 GR-embossed glass seal from dip mould beer/wine bottle
- 1820*TPQ* Press moulded tableware
- 1830–1900 *Cross & Blackwell* bottle
- 1847 *TPQ* Hartley patented patterned window glass
- 1870–1890 *Vandenbergh* gin bottle
- 1876–1900 Lamont patent aerated water bottles
- 1876–1906 *Newling & Walker* aerated water bottles

Occupation related deposit [17229]

In a localised area of the south verandah was a grey-brown loamy silt deposit that extended the width of the house (east-west) and contemporary with the localised modified historic topsoil [16120]. [17229] contained 69 fragments representing 18 MIC, including bottles (13), window glass (2) and tableware (2). Key temporal indicators are:

- 1820–1920 3-part shoulder-hinged moulded bottle with dip mould body
- 1820 *TPQ* Press moulded tableware
- 1850–1900 dip mould gin/schnapps bottle with embossed symbol on base

House 4 post holes

The packing and pipe fill of 33 post holes contained glass artefacts. Chronological and quantitative data for these deposits is shown in Appendix D. Seven of these deposits were directly associated with House 4 construction ([17253], [17257], [17265], [17267], [17489], [17493], and [17501]). Glass artefacts consist mostly of undated dark green alcohol bottle fragments. Contexts [17257] and [17265] yielded fragments of thin crown window panes (1850 *TAQ*). Context [17253] yielded the base of a bottom hinge-moulded bottle (1810–1880).

3.1.5 Phase 5 Levelling fills, Construction, Occupation and Demolition of Cranbrook 1880s-1960s

Phase 5.1 Raising and Levelling Events (pre-Cranbrook Construction)

Within the raising and levelling fills there was a number of artefact rich fills or dumps [16186], [16191] and [16182].[20] The largest of these dumps [16186] contained 394 MIC yielding the following key dates:

- 1820–1870 One dip mould beer/wine bottle
- 1876–1900 264 aerated water bottles made by John Lamont for *Newling & Walker*
- 1875–1896 Four *Hume & Pegrum* aerated water bottles
- 1881–1884 One *Jerimiah Smith* aerated water bottle

A smaller dump [16191], located on the boundary with Area B contained 16 MIC, all of which were bottles. The majority of dateable bottles (7) have an 1850–1900 date range, including one dip-moulded *Udolpho Wolfe* aromatic schnapps bottle (1848–1900).

[16182] is a scatter of rubble identified east of the House 4 brick paving. It contained fragments of one light green undiagnostic bottle.

Several episodes of pre-construction levelling associated with the construction of Cranbrook ([16124] and [16132]) contained artefacts. Given the secondary depositional nature of the fill, no functional analysis was undertaken. Context [16124] contained only fragments of three un-diagnostic bottles. Context [16132] contained 20 bottles, and for many form and temporal placement were achieved. Most bottles are identified as beverage containers (5 alcohol and 12 aerated water). None were manufactured after 1920. Twelve bottles are for aerated water and of this number, 10 are *Newling and Walker* / Lamont patented bottles (1876–1900), (Figure 3.1). Additionally, one schnapps bottle had an 1840–1900 date range. Results of temporal analysis for [16132] are consistent with pre-Cranbrook construction activities.

In the foundation trenches [16142], the fill [16143] packed around the foundations contained 37 MIC. Identified artefacts are bottles (21), bottle stoppers (2) or window glass (4). Bottle types are alcohol (8), aerated water (3), food (5) and pharmacy (3). Given the secondary depositional nature of the fill, no functional analysis was undertaken. None of the artefacts were manufacture after 1920. One marked Holbrook sauce bottle stopper has an 1872 *TPQ*. Results of the temporal analysis for fill [16143] are consistent with the construction of Cranbrook.

[20] Jones, D. 2009.

Phase 5.2 Demolition of Cranbrook Late 1950s-1960s

The demolition of Cranbrook in 1962 resulted in demolition rubble within the foundation of each room, which was recorded separately. Glass artefacts from demolition fill associated with Cranbrook (by room).is a summary of artefacts recovered from these rooms.

Table 3.2: Glass artefacts from demolition fill associated with Cranbrook (by room).

Room	Context	Description of Glass	Date Range	MIC
1	NA			
2	16103	none		0
	16105	none		0
3	16104	none		0
	16106	Lamont patented aerated water bottle	1876-1900s	1
4	16130	Machine made *Mynor* cordial bottle - complete	1930–1950	1
5	16133	Hartley patent patterned glass; club sauce type stopper	1840–1920	3
6	16131	Machine made beer bottles – year of manufacture marked on base	1963	3
	16134	Aerated water, beer and schnapps bottles	1880–1920	4
7	NA			0
8	16157	none		0
9	16158	Eno's type stopper	1840+	1
10	NA			
11	16154	*Newling & Walker* aerated water bottle and Hartley patented patterned window glass	1876–1895	3
12	16155	none		0

3.1.6 Phase 6: Post Office 1960s–2015

The only glass artefact from Phase 6 activities is a generic bottle (1820–1900) that was recovered from foundation trench fill [16117].

3.2 Area A South

Glass artefacts were recovered from 19 contexts identified in the southern section of Lot 30 (Area A South). Historic topsoil in this area was excavated in squares. The spatial distribution of glass artefacts recovered from topsoil is shown in Appendix E.

Analysis results are organized by phases and address Phase 4 to Phase 6.

3.3 Phase 4 Construction, Occupation and Demolition of House 4 c.1819–1880s

3.3.1 Phase 4.2 Pits, Postholes and Pond in Area A South 1850s-1870s

Post holes

The post pipe fill [17202] of post hole [17201] contained the only artefact recovered from post hole deposits in Area A South. The one glass light aqua bottle base was otherwise undiagnostic.

Pond

A rectangular shaped pond was identified from the 1858 historic plan along the property boundary between Area A South and Area D. Test Trench 14 was excavated along the boundary in Area A South and the fill contained 180 glass artefacts (37MIC). The majority of these items are bottles (35MIC), which are mostly commercial alcohol bottles (20MIC). Results of temporal analysis suggest an 1850s–1870s date range for the majority of these bottles, with the exception of a beer bottle made by *Forster Glass Co* (1902–1945).

Sandstone Wall 17275

A sandstone wall [17275] along the western boundary of Lot 30 (Area A South) truncated a semi-circular pit. While the trench report for this area indicates no artefacts were recovered from the fill [16191], 50 bottle fragments (16 MIC) were catalogued. The majority of bottles are commercial beverage containers (13MIC) and temporal analysis of bottle glass indicates a wide 1850–1900 date range for the deposit.

3.4 Phase 5 Construction, Occupation and Demolition of Cranbrook Cottage 1880s-1960s

3.4.1 Phase 5.1 Raising and Levelling Events (pre-Cranbrook Construction)

Bottle and Refuse Dumps

In the northern end of Area A South were a number of rubbish dumps above the topsoil [16318] and below the levelling fills ([16127] and [16356] and [16376]) that pre-dated the construction of Cranbrook.

Bottle dump deposits [16353] and [16354] filled an irregular undulating depression orientated north to south across the area. The upper deposit [16353] is considered a bottle dump, as approximately 90 per cent of artefacts are bottles. The lower fill is a refuse deposit [16354].

The bottle dump deposit [16353] contained 453 MIC, of which 405 are glass bottles that are predominantly (90%) commercial beverage container (348MIC). More than half of the beverage bottles are for aerated water (56%) and a majority of these bottles are from Parramatta aerated water firms, including *Newling & Walker* (110MIC), *Hume & Pegrum* (5MIC) and *C & J Summons* (9MIC), examples of which are shown in Figure 3.2. Other beverage bottles contained alcohol (136MIC), cordial (1MIC) and an unidentified beverage (17MIC). There are also 38 bottle stoppers that are mostly hard rubber (ebonite) Lamont patent type stoppers (32) (Figure 3.3). Also included in this deposit was one rare Matthew's patented glass stopper (1864 *TPQ*) (Figure 3.4).

Refuse deposit [16354] below the bottle dump contained 70 MIC. The majority of artefacts (58%) are commercial beverage bottles (41 MIC). Approximately 41 per cent of these beverage bottles are for aerated water (17), including six *Newling and Walker* (1875-1895) and one *Hume & Pegrum* (1875-1896 bottles. The remainder of beverage bottles are various alcohol types (24 MIC), including three for beer/wine, three for champagne and five for schnapps.

Rubbish Pits

Six of the eight excavated rubbish pit associated with Phase 5.1 in Area A South contained glass artefacts (Table 3.2). The fill of four pits had bottles with datable bottle maker marks and/or product labelling to that aided in the establishment of narrow a date range for each deposit.

From the fill [16252] of pit [16251] 62 per cent of glass is bottles (30) or their stoppers (3). The majority of identified bottle forms held beverages (9), with others for ink (2), perfume (3) and medicine (6). Collectively, these bottles forms are consistent with a residential setting. Key temporal indicators are datable product bottles, including:

- *Higgins Ink* 1880–1920
- *Wellcome Chemicals* 1880–1920
- *Kok for the Hair* 1897 *TPQ*
- *William Docker's Sun Brand* 1913 *TPQ*
- *ETA Foods* 1922 *TPQ*

Seventy per cent of the glass artefacts from the fill [16261] of pit [16259] are bottles or their lids. Identified bottle forms are consistent with a residential setting, include beverage (6), ink (1), food (7) and medicine (9). Key temporal indicators are datable product bottles, including:

- *Hiller & Co Newtown* 1884–1895
- *Champion Vinegar* 1902–1950
- *Uriceden Stroschein* 1920 *TPQ*

The fill [16284] of pit [16283] contained two beverage bottles. A *Marchant's* cordial bottle (1882–1930) contributes to temporal placement for this deposit.

Approximately 70 per cent of artefacts from the fill [16288] of pit [16287] is bottles (36) or their closures (8). Identified bottle forms are consistent with a residential setting, including beverage (5), food (5), perfume (7), shoe polish (1) and medicine (2). Key temporal indicators are datable product bottles, including:

- *Jeyes Fluid* 1877–1920
- *Vici Leather Dressing* 1880–1930
- *C & J Summons* 1892–1930

Approximately 67 per cent of artefacts from the fill [17139] of pit [17138] is bottle (5) or bottle closures (1). Identified bottle forms include beverage (3), food (1) and medicine (1). There are an insufficient number of glass artefacts to determine use association, however, analysis results are marginally consistent with a residential setting. Datable artefacts provided mostly *terminus post quem* information and one dip-moulded schnapps bottle has a use-popularity *terminus ante quem* of 1900.

Table 3.3 Summary data for Area A-South, Phase 5 rubbish pits.

Cut-Fill	Frags	MIC	Date Range
16251-16252	218	53	1920–1930
16253-16254	1	1	1870[21]
16259	-	-	
16261(upper fill)	44	40	1895–1920
16260 (lower fill)	-	-	
16283-16284	3	2	1882–1930
16285-16286	-	-	
16287-16288	244	66	1910–1930
16289-16290	-	-	
17138-17139	11	9	1840–1900

3.5 Phase 6 1960s – 2015, Construction, Occupation and Demolition of the Post Office

The only context to be associated with Phase 6 site development in Area A-South that contained glass artefacts is the fill [16250] of a large rectangular cut that surrounded a lamp post. The partially excavated cut yielded nine artefacts, including bottles (6) and tableware (3). A *Lea & Perrins* bottle (1840 *TPQ*) made by *Aires & Calden* (1836-1913) suggests the cut was filled prior to 1913.

Figure 3.1: Cobalt aerated water bottles from [16186].

Figure 3.2: Examples of aerated water bottles from [16353].

[21] A fragment of crown window glass.

Figure 3.3: Lamont patent ebonite bottle stoppers from [16353].

Figure 3.4: Rare Mathew's patent glass bottle stopper from [16353].

3.6 Area B

Area B represents the eastern portion of Lot 30, 153 Macquarie Street. A total of 1910 artefacts (642 MIC) were recovered from 84 contexts. Analysis results are organised by phases of site development that are based on historical records. For Area B, six main phases were identified (Table 3.4), however no artefacts are associated with the first three phases.

Table 3.4 Archaeological Phases identified for Area B.

Phase 1	Natural landscape
Phase 2	Aboriginal occupation
Phase 3	1788–c.1819 Beginnings of British Settlement
Phase 4	c.1819s–1870/80s Early occupation
Phase 4.1	c.1819–1850s Construction and early house occupation (House 4).
Phase 4.2	1850s–1880s Later phase occupation and extension (House 4)
Phase 4.3	1870s-1880s Demolition of early cottage (House 4). Pre-terraces levelling fills
Phase 5	1880s–1960s Brick Houses (Cranbrook, Northiam and Harelyville)
Phase 5.1	1888–1950s Construction and occupation of Northiam and Harleyville (Houses 2 & 3)
Phase 5.2	1950s-1960s Demolition of terraces (Northiam and Harleyville)
Phase 6:	1960s–2015 Parramatta Post Office, construction, occupation and demolition

3.6.1 Phase 4.3 Pre-terraces levelling fills 1870s-1880s [22]

Levelling fill

Artefacts were recovered from a series of fill deposits were laid down prior to the construction of House 3 (Table 3.5). A pink sand deposit [16408] covered much of the area of House 3 and was also

[22] The pre-house levelling fills are discussed in Phase 4.3 in Area B Trench Report but are discussed in Phase 5.1 in the Final Report as they are associated with the redevelopment of Lot 30 in the 1880s.

fill for cuts of foundation trenches. The pink sand was covered by other levelling episodes identified within the house's footprint ([16426] and [16458]) that contained artefacts. While many of the datable glass for these deposits had wide date ranges spanning the last three quarters of the 19th century, there are two key temporal indicators from the pink sand deposit [16408] derived from a documented manufacturer and a product maker:

- *E. Rimmel* (perfume) 1850–1920[23]
- *Kilner Brothers* (bottle maker) 1873–1936

Results of temporal analysis indicate that levelling fill deposits are consistent with the demolition of Harriet Holland's timber house (House 4 in Area A) and most likely represent pre-construction levelling prior to the construction of House 3 in Area B.

Table 3.5: Area B, Phase 4.3 - quantitative and temporal data for levelling fill deposits.

Context	Date		MIC
16408	1850	1873	20
16426	1850	1900	3
16458	1850	1920	5

3.6.2 Phase 5.1 Construction and Occupation of Brick Terraces (Houses 2 & 3) c.1883–1950s

Two semi-detached terrace houses were built on Lot 30 by 1883 (Houses 2 & 3). Each house was serviced by two cesspits. For each house a cesspit was located in centre of the yard area, while the second cesspit was located close to the southern property border. Temporal and functional analysis was conducted for each cesspit. As shown in Table 3.6, glass from the centre-yard cesspits have earlier *terminus post quem* data than glass in cesspit deposits along the southern border (Figure 3.5), which suggests the cesspits in the centre yard may have been constructed before the ones on the southern property border. None of the glass artefacts in any deposit in the four cesspits have a *terminus anti quem* after 1920. Key temporal indicators for each deposit are shown in Table 3.7.

Functional analysis identified a variety of activities within each cesspit that are consistent with a residential setting (Table 3.8). There are no discernible differences between the House 2 and House 3 cesspit assemblages, as similar functions are in all cesspits with slightly varying relative frequencies. For example, perfume bottles were recovered from both House 2 cesspits and none were recovered from cesspits associated with House 3 (Figure 3.6). Except for the higher volume of artefacts in the two cesspits at the southern border, no other differences were noted between the centre-yard cesspits and those at the southern border.

Table 3.6: Temporal and quantitative data for cesspits associated with Houses 2 & 3, Area B, Phase 5.1.

House	Cesspit	Fill	Date		MIC
2 (centre yard)	16915	16916	--	--	4
		16939	1850	1910	18
2 (southern border)	16921	16922	1872	1900	2
		16929	1887	1920s	55

[23] The bottle was made prior to the development of automatic bottle manufacturing technology.

House	Cesspit	Fill	Date		MIC
		16932	1865	1900	18
		16933	--	--	0
3 (centre yard)	16917	16918	1835	1900	13
		16925	--	--	0
3 (southern border)	16919	16920	1884	1890	23
		16952	1880	1920	48

Table 3.7: Key temporal indicators for cesspits associated with Houses 2 & 3, Area B, Phase 5.1.

House	Cesspit	Fill	Key Temporal Indicator	Date	
2 (centre yard)	16915	16916		-	-
		16939	Aire & Calden Glass Bottle Co.	1850	1913
2 (southern border)	16921	16922	Barry's Pearl Creams (face cream)	1872	1920
		16929	British Registry mark (dated)	1887	
		16932	Kay's Coaguline (contact cement)	1865	1900
		16933		-	-
3 (centre yard)	16917	16918	Crosse & Blackwell (condiment)	1835	1900
		16925		-	-
3 (southern border)	16919	16920	Hero Glass Works	1884	1890
		16952	Carlsbad LS (mineral water)	1880	1920

Table 3.8: Relative frequencies of functionally classified artefacts for cesspits associated with Houses 2 & 3, Area B, Phase 5.1.

Context	Architecture	Beverage	Cleric	Food	Household	Personal	Pharmacy	Service	Unidentified	Total
16939	11.1%	27.8%	5.6%	27.8%	11.1%	11.1%			5.6%	18
16922		50.0%				50.0%				2
16929	7.3%	21.8%		25.5%	3.6%	12.7%	14.5%		14.5%	55
16932	27.8%	16.7%		33.3%	11.1%			5.6%	5.6%	18
16918				69.2%			7.7%		23.1%	13
16920	4.3%	30.4%	4.3%	30.4%	4.3%		17.4%		8.7%	23
16952	4.2%	25.0%		22.9%	12.5%	2.1%	18.8%		14.6%	48

Figure 3.5: Late 19th-century tableware from Fill [16952] of Cesspit [16919], House 3, Area B.

Figure 3.6: Perfume bottles from Area B, House 2 Cesspits ([16921] and [16915]).

Two circular cuts ([16439 and [16441]) were located along the eastern side of House 3 near the verandah. The regularity of these features suggests they are garden beds. Fill deposits in these features ([16440] and [16442]) contained a small number of un-diagnostic artefacts, except for a club sauce stopper (1840 *TPQ*) and a machine-made paint vial (1920 *TPQ*) in the fill [16422] of cut [16441].

Fence lines

A series of fence lines are associated with this phase of site development. Most contained small fragments of un-diagnostic glass. A summary of quantitative and temporal data for 24 posthole fill or packing deposits from Area B are shown in Appendix D.

Rubbish pits

While there were a number of small rubbish pit identified in Area B that are associated with House 3, only the fill [16750] of an oval pit [16749] near the southern boundary produced diagnostic artefacts. Temporal information was derived from three late-19th century tableware items and one *Rumford Chemical Works* bottle (1854–1948).

Associated with House 2, two pits produced diagnostic artefacts. At the rear of House 2 there was an oval ashen pit [16624] and the fill [16625] contained four bottles that had each had a mid-19th to early twentieth century date range. Also, there was a large rectangular pit [16966] that contained two twentieth century artefacts: a Fe crown bottle cap (1895 *TPQ*) and a condiment bottle from *W. C. Douglass Ltd* (1930–1963).

A large neatly cut rectangular feature [17134], cut through an early drainage channel. The fill deposit [17135] in this cut contained two dip mould alcohol bottles (1780–1820), a cut panelled shot glass and a bottom hinged rectangular gin bottle (1820–1880). This cut was thought to be much later than the drainage channel, however, temporal information for glass artefacts suggests the cut dates to the first half of the 19th century.

3.7 Area C

Glass artefacts were recovered from 87 contexts that were identified in the western section of Lot 32 (Area C). A total of 95 postholes were excavation in Area C. Chronological and quantitative data for the 35 posthole deposits from all phases of site development that contained artefacts are shown in Appendix D.

Table 3.9: Archaeological phases identified for Area C.

Phase 1	Natural landscape
Phase 2	Aboriginal occupation
Phase 3	1788–c.1819 Beginnings of British Settlement
Phase 4	c.1819s–1870/80s Early occupation
Phase 4.1	c.1819–1850s Maughan's garden and White Horse Inn (from 1830s)
Phase 4.2	1850s–1880s Hilt's Coach Service (from 1851), outbuildings occupation & rebuilding (Lot 32)
Phase 4.3	1870s-1880s Demolition of former White Horse Inn and outbuildings
Phase 5	1870s–1960s Rebuilding and occupation
Phase 5.1	1888–1950s Construction and occupation of 1870s brick houses and outbuilding (Lot 32)
Phase 5.2	1950s-1960s Demolition of houses (now named Macquarie Flats in 1978)
Phase 6:	1960s–2015 Parramatta Post Office, construction, occupation and demolition

3.7.1 Phase 3 and Phase 4.1 Maughan's house and garden (fenced by 1819) and White Horse Inn (from 1830s)

Drains

A serpentine brick lined drain [16609] contained two fill deposits.[24] Fill [16610] was associated with the construction of the drain and contained no glass artefacts. The upper fill deposit [16611] was associated with post-construction silting in the drain and it contained 7 MIC, consisting of bottles (5) and tableware (2). Identified bottle forms are for alcohol and include dip-moulded beer/wine (1820–1870) and schnapps (1800–1900) bottles. The tableware items are both press-moulded with panelled shape (1835*TPQ*). Results of temporal analysis for glass artefacts suggest that fill in the serpentine drain accumulated during the subsequent White Horse Inn phase of site development (1830s–1850s).

[24] This drain has since been re-phased to Phase 4.1 in the Area C Trench Report and the Final Excavation Report.

The fill [16564] of east-west brick lined drain [16563], thought to have been contemporaneous with the serpentine drain, contained no glass artefacts.

Post holes

Twelve post holes were originally associated with Phase 3 site development and were thought to be associated with fencing for Maughan's garden. Analysis of the artefacts suggests these postholes are more likely associated with Phase 4 and the occupation of the White Horse Inn.[25] Of this number, the fill/packing of six post holes contained artefacts, but artefacts from only two postholes provided temporal information. The packing [16561] of posthole [16560] contained one *Udolpho Wolfe* schnapps bottle (1848*TPQ*).[26]

A bottle from the packing [16787] of posthole [16786], which was actually located in Area B, was made by *York City Glass Co* (1860–1900).[27] As this artefact was recovered from packing associated with the original placement of the post, temporal information for this posthole indicates it was associated with a later phase of sites development (Phase 5.1) and has been rephased to Phase 5.1 (1870-1960s).

3.8 Phase 4.2: c.1850s-1870s Occupation of the White Horse Inn (1830s-1850s) Stables and Sheds Replaced by Hilts Coach Service (from 1851) - (Structure 5)

3.8.1 Pit [16824] in Section C, Structure 5

Pit [16824] was rectangular cut feature associated with White Horse Inn stables in NW corner of Structure 5. The fill deposit [16825] from this feature contained 44 MIC.[28] Approximately, 82% (36MIC) of artefacts provided temporal information. Alcohol bottles (5) from this deposit have an 1800–1850 date range. However, bottles with datable product or manufacturers' marks have date ranges in the last half of the 19th century. Key temporal indicators derived from identified manufacturer and product bottles include:

- *E Rimmel* Perfumer 1850 *TPQ*
- *Davis vegetable Pain Killer* 1854–1920
- *Sykes Macvay & Co* 1860–1894
- *Newling & Walker* 1876–1906

Results of temporal analysis suggest that while pit [16824] originated during White Horse Inn or Hilt's Coach Service phase of site development (Phase 4.2), it was later used by occupants of the two semi-detached houses (Phase 5) for rubbish disposal.

[25] These fenceline postholes have since been re-phased to Phase 4.1 in the Area C Trench Report and the Final Excavation Report.

[26] As this was the only artefact in the packing fill 16561 it is quite possible it was pressed in from a higher/later deposit directly above it.

[27] Packing fill 16787 has since been re-phased to Phase 5.1 in the Area C Trench Report and the Final Excavation Report.

[28] Fill 16825 has since been re-phased to Phase 5.1 in the Area C Trench Report and the Final Excavation Report.

3.8.2 Pit [16930] in Section C, Structure 5

Pit [16930] was a rectangular pit located in the south-central section of Section C. Result of pollen analysis indicates this feature was a cesspit.[29] There are 30 artefacts from the fill [16931] of pit [16930]. The majority of artefacts are bottles (19) and bottle closures (2). Food-related items (36.7%) and beverage bottles (20%) comprise the majority of functionally classified artefacts and when considered along with perfume and medicine bottles, a residential setting is suggested.

Approximately 73% of artefacts (22MIC) provided temporal information. Dip-moulded alcohol bottles (4) from this deposit have an 1800–1870 date range. However, bottles with datable product or manufacturers' marks have date ranges in the last half of the 19th century. Key temporal indicators derived from identified manufacturer and product bottles include:

- *George Whybrow* 1825–1899
- *Barry's Tricopherous For the Skin and Hair* 1851–1920
- *J Ross* 1867–1893
- *Piesse & Lubin* 1888–1920

Results of temporal analysis suggest that while pit [16930] originated during White Horse Inn or Hilt's Coach Service phase of site development (, Phase 4.2), it was later used by occupants of the two semi-detached houses (Phase 5) for rubbish disposal.

3.8.3 Pit [16736] in Section C

Pit [16736] is a large irregular circular feature located north of pit [16930]. There are 93 artefacts from the fill [16737] of pit [16736]. Functional analysis categorised artefacts into eight identified groups, as shown by relative frequencies in Figure 3.7. Functional analysis results for this deposit are consistent with a residential setting. The combined relative frequencies of food and beverage represent approximately 66 % of the assemblage. Beverage bottles consist of alcohol (36) and aerated water (2). Food-related items are condiment bottles, including a preserve jar, a pickle/chutney and oil bottles (4). There is a variety of tableware, including a carafe, serving dishes (3), stemware (1) and tumblers (3). There is a variety of use-specific artefacts, such as ornamental items, ink bottles, perfume bottles and medicine bottles, which are also typical of a residential assemblage.

[29] Jones Rhian 2018.

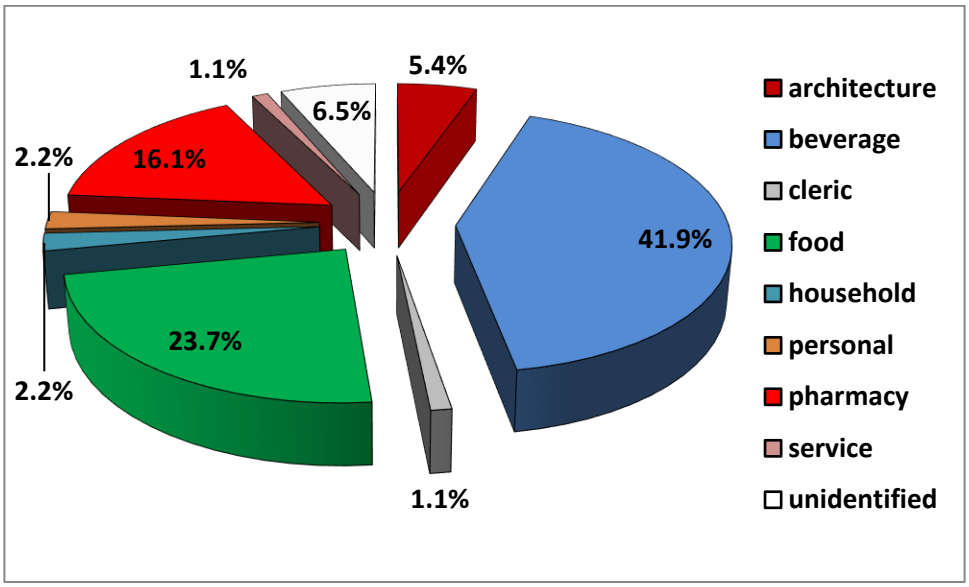

Figure 3.7 Relative Frequencies of Glass Artefacts by Function from Area C, Fill [16737] of Pit [16736].

Approximately 90% (83MIC) of artefacts provided temporal information. Alcohol bottles from this deposit have an 1820–1870 date range. In deed there is a wide range of glass artefacts that exhibit manufacturing technologies that date from the early to late 19th century, including:

- Press-moulded tableware 1820 *TPQ*
- Panelled tumblers 1830 *TPQ*
- Hartley patterned window glass 1840 *TPQ*

Bottles with datable product or manufacturers' marks have date ranges in the last half of the 19th century with some dating after Phase 4 of site development. Key temporal indicators derived from identified manufacturer and product bottles include:

- *George Whybrow* 1826–1899
- *Udolpho Wolfe's Aromatic Schnapps* 1850 *TPQ*
- British Registry mark 1856 *TPQ*
- *Mather's Infant Feeding Bottle* 1860 *TPQ*
- *C. Oppel & Co* 1870 *TPQ*
- *Newling & Walker* 1876–1900
- *Hume & Pegrum* 1875–1896
- Vaseline 1880 *TPQ*
- *4711 eau de Cologne* 1881–1920

Based on the seriation of *terminus post quem* data temporal analysis results suggest that deposit [16737] represents both Phase 4 and Phase 5 of site development.

3.8.4 Pit [16745] in Section E

A circular pit [16745] was located on boundary between Lot 30 and Lot 32 in Section E. The fill [16746] of pit [16745] contained 37 MIC. Approximately 76% of artefacts (28MIC) provided temporal

information, which was derived from datable technological advancements for bottles, window glass and tableware, including:

- Beer/wine (applied down-tooled finish) 1800–1850
- Panelled tableware 1830 *TPQ*
- Hartley patterned window glass 1840 *TPQ*
- Form-tooled finish (sauce type) 1840–1920
- Machine made bottle 1920 *TPQ*

There is also one bottle made by *Cannington Shaw* for *C & J Summons* that has a combined date range of 1892–1915.

3.8.5 Discussion of Phase 4.2 Pits

Results of temporal analysis for three pits suggest that ([16824], [16745] and [16930]) were originally associated with Phase 4.1 of site development. However, from each deposit the later-dated bottles represent a later phase of site development. The earlier dated artefacts from each deposit are alcohol bottles which are consistent with an inn assemblage, while the later dating glass more likely originated from a residential setting.

Artefacts from the fourth pit [16736] provide similar use-analysis results in that the earlier dated glass is consistent with the White Horse Inn/Hilt's Coach Service, while the later dated bottles are consistent with a residential setting. However, the artefacts from this deposit represent a continuum of *terminus post quem* data that suggests use of the pit for rubbish from the early White Horse Inn/Hilt's Coach Service phase through the occupation of the site by the semi-detached houses.

As this archaeological investigation represent only the western portion of Lot 32, included here is the results of analysis for other pits located in the remainder of the property excavated as part of the One PSQ archaeological investigation.[30] Five rubbish pits were identified in Lot 32 (designated as Area 1) during the 2015 excavations for One PSQ. Temporal data for One PSQ deposits, shown in Table 3.10, represent all classes of artefacts, not just glass. Only the fill [163] of rubbish pit [164] contained datable artefacts that are consistent with the White Horse Inn phase of site development. The other four pits contained artefacts that are consistent with the occupation of the site when the semi-detached cottages were located on the property.

Table 3.10: Temporal data for rubbish pit on Lot 32 from one PSQ excavations.

Fill	Cut	Date		MIC
[071]	[072]	1880s	1910s	254
[073]	[074]	1890s	1910s	71
[075]	[076]	1890s	1910s	52
[139]	[140]	1890s	1900s	29
[163]	[164]	1830	1840s	64

[30] GML Heritage 2015.

3.9 Phase 4.3 Demolition of Outbuildings (Structure 5) and Levelling Fills 1870S – 1873

Pit [16934] and Pit [16705]

Pit [16934] was a large square storage or cesspit in Section E. This pit was robbed-out or salvage with an irregular circular cut [16705]. The fill deposit [16755] of pit [16934] contained 22 MIC. There are 16 datable artefacts from fill deposit [16755] and temporal information was derived from datable technological advancements for bottles, tableware and lighting fixtures. Results of analysis suggest an 1820–1850 date range. Key temporal indicators include:

- Dip-moulded beer/wine bottle (basal sag) 1800–1830
- Gin/schnapps bottle (pig snout lip formation) 1800–1850
- Stemware (central bladed knop; bucket bowl) 1810–1840
- Beer/wine (abrupt heel; sand pontil scar) 1820–1870
- Lamp shade (press moulded) 1820 *TPQ*

Fill deposit [16706] within the circular robbers cut [16705] contained 39 MIC. Approximately 79% of glass artefacts (30MIC) provided temporal information. The majority of temporal information was derived from datable technological advancements for bottles and tableware, including:

- Beer/wine (abrupt heel; sand pontil scar) 1820–1870
- Press-moulded tableware 1820 *TPQ*
- Panelled tableware 1830 *TPQ*

Also, there are three bottles for which manufacturers are identified. These artefacts are aerated water bottle and manufacturers are:

- *Lumb & Co*. 1870–1905
- *John Lamont* 1876–1900
- *Melbourne Glass Bottle Co*. 1902–1915

Results of analysis for the robbers cut suggests this deposit dates from the late 19th to early twentieth century.

Levelling fill deposit [16435]

Deposit [16435] was a post-demolition levelling fill, located over the top of brick gutter [16471] along the northern side of Section A. It contained 26 MIC. Temporal analysis results suggest this deposit most likely was redeposited rubbish from an earlier deposit. The majority of datable artefacts are dip-moulded alcohol bottles manufactured between 1790 and 1850. The datable tableware has an 1800–1850 date range.

Levelling fill deposits

Levelling deposits [16618], [16623] and [16658] were laid down prior to the construction of Structure 6. Collectively, they contained 59 MIC. Each deposit appears to be redeposited rubbish from an earlier deposit and each is characteristically different. Observation on temporal placement for each deposit is as follows:

- Deposit [16618] contained a mix of early-19th century alcohol bottles, mid-19th century tableware and food bottles and a late-19th century aerated water bottles.

- Deposit [16623] is a mix of mostly medicine, aerated water and alcohol bottles with an 1850s–1900 date range.
- Deposit [16658] contained only four glass artefacts, one of which was a stopper for a George Whybrow oil bottle (1840–1899).

3.10 Phase 5 Brick Semi-Detached Houses and Outbuildings 1870s-1960s

3.10.1 Rubbish Dumps and Demolition of outbuilding (Structure 6) 19th to Early-Mid 20th Century

A dump [16433] was located between the south wall of the chimney, the western wall of Structure 6 and the drip drain. The majority of the 45 artefacts are bottles (31) and bottle closures (5). Also in this deposit are tableware (7) and window glass (2). Functional analysis results for this deposit are consistent with a residential setting (Figure 3.8). The combined relative frequencies of food and beverage represent approximately 58 % of the assemblage. Beverage bottles consist of alcohol (8) and soft drink/aerated water (2); food containers are condiments for fish paste (2) and sauce (2). There is a variety of tableware items, including a salt, drinking glasses (2), tumblers (2) and serving dishes (2). Also contributing to use-analysis are an ink bottles and medicine vials (2).

Temporal placement was achieved for 67% of glass (30) and an 1880–1930 date range is indicated. Key temporal indicators taken from documented manufacturer and product marks include:

- *Holbrook & Co.* 1872–1920
- *Summons & Graham* 1882–1930
- *Australian Glass Manufacturers* 1930 *TPQ*

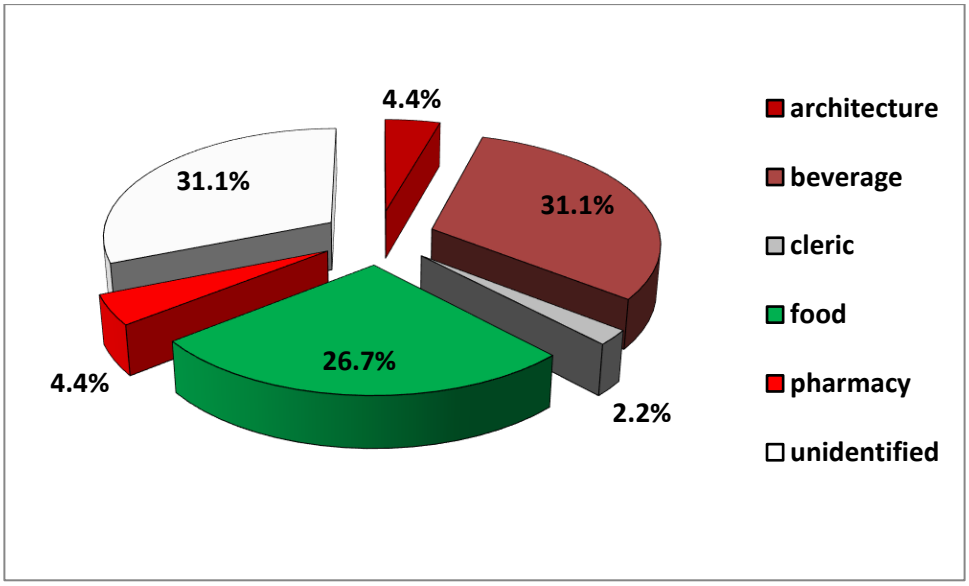

Figure 3.8: Relative frequencies of glass artefacts by function from Area C rubbish dump [16433].

3.11 Area D

Area D is comprised of Lot 1(181) and Lot 28. For most of the 19th and 20th centuries, Lots 1(181) and 28 together with the east half of the neighbouring Lot 27 (outside the study area) had the same owner and were effectively one property. Glass artefacts were recovered from 17 contexts within the western section of Lot 28 (Area D). For Area D, the six main phases were identified (Table 3.11), with addition of sub-phases for Phases 4 and 5.

Table 3.11: Archaeological phases identified for Area D.

Phase 1:	Natural landscape.
Phase 2:	Aboriginal occupation.
Phase 3:	c.1788 to c.1819 -Beginnings of British Settlement.
Phase 4:	c.1819 to 1880s Early occupation.
Phase 4.1	c.1819 to 1850s - Introduction of the Town Drain, ploughlines and evidence for early residential occupation including drains and a pond.
Phase 4.2	1850s to 1880s – Later occupation, outbuildings and fences associated with Wyverne.
Phase 5:	1870s to 1960s - Rebuilding and occupation
Phase 5.1	1870s to 1960s Construction of fibrous plaster works. Continued occupation of Wyverne.
Phase 5.2	Late 1950s-1960s Demolition of plasterworks and Wyverne.
Phase 6:	1960s to 2015 – Civic Place construction and use.

3.11.1 Phase 3 Early Land Use, Timber Drain in Creekline 1790 to c.1819

Creekline and Town Drain

Later formalised as the Town Drain, a natural creek-line or drainage channel diagonally bisected the northern end of Area D. Sediment in the channel [17853] contained 3 beer/wine bottles with 1780–1830s date ranges. One early bottle has an applied glass seal above the base stamped with the monogram WPP (Figure 3.9).

Figure 3.9 Beer/wine bottle from Creek-line Deposit [17853].

Plough Lines[31]

Plough lines [17855] across Lot 1 contained 24 MIC. The majority of artefacts are bottles (17), but for most artefact fragmentation is too severe to identify specific form or identify datable attributes. Temporal information is limited to early crown window glass (1850*TAQ*) and one dip-moulded beer/wine bottle (1820–1870).

Linear trench in TT30

The fill [17829] of an east-west linear trench [17828] between Lot 28 and Lot 30 contained 3 MIC, consisting of 2 alcohol bottles and the base of a footed stemware item. None of these artefacts displayed datable attributes.

3.11.2 Phase 4.1 Early Occupation, Including Town Drain and a Pond c.1819 to 1850s

Modified historic topsoil

There was no intact original topsoil in Area D. However, a deposit of modified topsoil [17819] covered the northern end of Area D. This deposit contained 16 MIC, including bottles (9), bottle closures (2)

[31] Further analysis of the artefacts within the plough lines post-excavation has resulted in this context (17855) being rephased to Phase 4.1 in the Final Excavation Report, Volume 1, Section 3.

and tableware (2). Temporal analysis results indicate an 1800–1850 date range for artefacts in this deposit, with the following key temporal indicators:

- Dip-mould bottle - flat top lip shape 1765–1785
- Stemware with folded foot 1780–1850
- Dip-mould bottle - down tooled lip shape/string rim 1800–1850
- Form tool lip finish 1820–1920
- Club sauce type stopper 1840 *TPQ*

Post holes

A series of post holes were identified to the south of the timber capped drain [17888] in TT 34. Packing or pipe fill from two of these post holes contained artefacts (Table 3.12).

Table 3.12: Chronological and quantitative data for posthole deposits from Area D.

Context	Area	Description	MIC	From	To
17880	Area D	Packing	5	1820	1920
17881	Area D	Pipe fill	3	1788	
17886	Area D	Packing	2		

Timber-capped drain

There was an east-west timber-capped drain [17888] located with Lot 28. The upper fill [17890] in the drain contained fragments of 4 bottles. Two bottles provided wide ranging 19th century date ranges:

- Dip-moulded schnapps 1800–1900
- Post-bottom mould 1820 *TPQ*

Pond

A pond was located on the boundary between Lot 1 and D'Arcy Wentworth's estate to the south. Beneath layers of historic clays was a silty fill [17854] that contained remnants of two bottles that produced a circa 1850 date.

Pit in plough line

Fill [17874] shallow pit [17873] contained 3 bottles and window glass fragments. Temporal information for the bottles is wide ranging, producing an 1820–1870 date range. Key temporal indicators are:

- Dip mould bottle with open pontil scar 1870 *TAQ*
- Crown window glass 1870 *TAQ*
- Dip-mould bottle; down tooled lip shape 1820–1850

3.11.3 Phase 5 Rebuilding and Occupation, Later Use of Site 1870s-1960s

Wyverne rubbish pit

In the backyard of the Wyverne house, a shallow pit [17859] contained fill [17858]. This deposit contained 52 artefacts. Bottles (32) comprise the majority of artefacts (61.5%) from this pit. The majority of bottles (17) are complete, as are all bottle stopper (8).

There is one early 19th century bottle from this deposit – a dip-moulded beer/wine bottle with an applied down tooled lip shape (1800–1850). The remainder of the bottles have a 1920 *TAQ*. All tableware has an 1835 *TPQ*, as they are all panelled vessels with ground and polished pontil scars. Furthermore, key to dating this deposit are three documented products:

- *Drake & Co (Chemists) Irish Moss* 1860–1920
- *Scott's Emulsion* 1871–1920
- *Holbrook & Co Sauce* 1872 *TPQ*

Results of temporal analysis for deposit [17858] suggest an 1870s–1920s date range for glass artefacts.

Functional analysis classified 98.1 % of the glass artefacts from [17858] into six identified groups (Figure 3.10). The majority of beverage-related items are alcohol bottles (71.4%) while aerated water (1) and bottle closures (3) comprise the remaining beverage items. Food related items (11) consist of condiment bottles (2), sauce bottle stoppers (4) and drinking vessels (4). Household-related artefacts consist of ornamental items (2). Pharmaceutical-related items are medicine bottles (22), including generic types (11), chemist (2), remedies (1) and patent medicines (3). Other pharmaceutical items are closures (5).

Collectively these classes of artefacts are consistent with a residential setting. However, of specific note in this assemblage is the unusually high relative frequency of pharmaceutical bottles. While two bottles are flint glass types used by chemists, half of the medicine bottles are generic forms (11) that are used by both chemists and patent medicine manufactures. Two identified products (Drake's Irish Moss and Scott's Emulsion) were cough remedies and while both were made with mostly natural ingredients, Drake's Irish Moss contained synthesised opiates (heroin). One of the uses of cough remedies was to treat respiratory ailments resulting from exposure to mould. Given the proximity to the Town Drain and archaeological evidence of raising and levelling episodes, creeping damp was a possible issue at this site. Damp promotes the growth of mould and it is probable that the residents at this location suffered from respiratory issues resulting from such conditions.

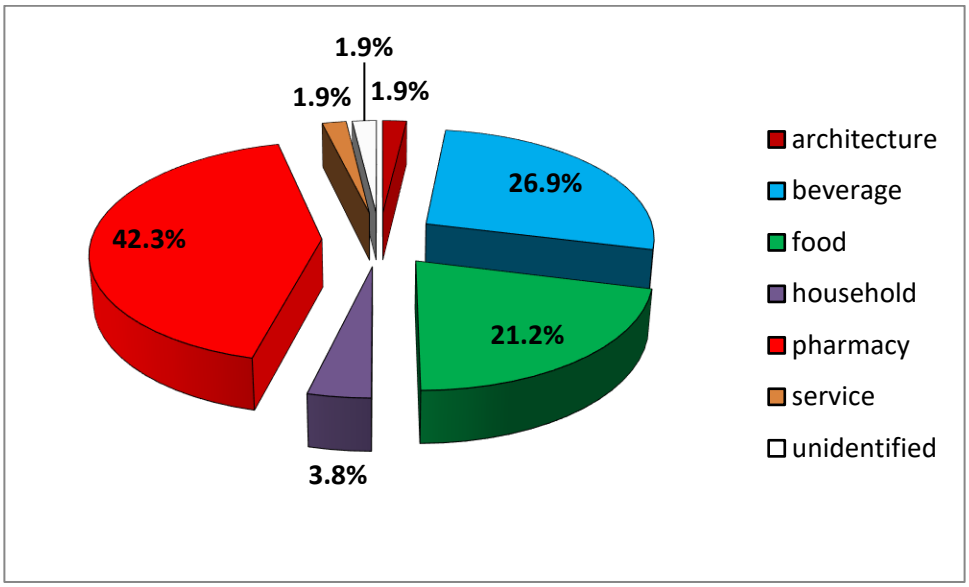

Figure 3.10: Relative frequencies of glass artefacts by function from Area D, Wyverne rubbish pit [17858].

Rubbish pit [17518]

An irregular oval rubbish pit [17518] was located on the northern end of the site, near Macquarie Street. The fill [17519] of this pit contained 29 MIC. The majority of artefacts (86.2%) are bottles (25), including alcohol (12), food/condiment (3) and medicine (5). The remainder of the identified glass is drinking vessels (2) and window glass (1).

Temporal placement was achieved for 79.3% of glass. Dates for key artefacts are:

- Dip-mould bottle; open pontil scar 1780–1830
- Dip-mould beer/wine bottle; down-tooled lip 1800–1850
- Dip-mould; abrupt heel; sand pontil scar 1820–1870
- Tumbler; ground & polished pontil scar 1835 *TPQ*
- Dip-mould schnapps bottle; symbol on base 1850 *TPQ*
- *Bishop's Granular Citrate Of Magnesia* 1876–1915

Results of temporal analysis indicate the glass in this deposit represent artefacts dating from 1830s to 1870s. It could not be determined if the assemblage represents an accumulation of material or yard clean-up activities.

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Appendix A

Contexts Selectively Catalogued

Area	context	Action	Description
A	16101	partial catalogued	whole bottles catalogued and partial bottles with product information embossed or printed on bottle. Bottles are softdrink, spirits, and food types; one stemware (machine made); juice glass with applied coloured label (1930sTPQ)
A	16102	not catalogued	fragments of a champagne bottle and two light green bottles
A	16103	not catalogued	fragments of a champagne bottle and one light green bottle
A	16104	not catalogued	machine made bottle base and fragments of 2 other bottles
A	16105	not catalogued	fragments of a champagne bottle and a light green spirits bottle
A	16106	partial catalogued	Lamont bottle catalogued; fragments of one spirit and one aerate water bottle not catalogued
A	16117	not catalogued	tiny fragments
A	16133	partial catalogued	House 1; room 5 - prismatic glass and club sauce stopper catalogued; dark green champagne bottle fragments, light green and colourless bottle glass not catalogued
A	16134	partial catalogued	Udolpho Wolfe bottle catalogued; dark green, aqua, and light green bottles not catalogue; pressed glass tableware not catalogued
A	16136	partial catalogued	catalogued diagnostic datable artefacts; counted and recorded non diagnostic bottle glass
A	16155	not catalogued	brown, colourless and dark green bottle glass; plate glass
A	16158	partial catalogued	Eno's type stopper catalogued; melted brown glass not catalogued
A	16163	not catalogued	one green bottle frag
A	16189	partial catalogued	catalogued whole and diagnostic bottles/tableware
A	16224	not catalogued	one light green frag
A	17521	not catalogued	tiny fragments
B	16401	special bottles catalogued	mix of late 19th and 20th century bottles; seven bottles catalogued from 3 boxes

Area	context	Action	Description
B	16402	not catalogued	window glass and a foil bottle seal
B	16404	not catalogued	no specifically diagnostic or datable artefacts - bottle fragments
B	16408	most catalogued	most artefacts larger than 20c
B	16408	not catalogued	fragments smaller than 20mm
B	16416	not catalogued	Hse 3 RM 4; small wet sieved fragments of bottle glass, window glass and table glassware
B	16416	not catalogued	Hs 3 Sq W21 Sp 3 small bottle fragments
B	16416	not catalogued	Hs 3 Sq M16 Sp 2 small bottle fragment
B	16416	not catalogued	Hs 3 Sq W21 small bottle fragments
B	16416	not catalogued	Hs 3 Sq P17 SP 3 small bottle fragment
B	16416	not catalogued	Hs 3 Sq H21 Sp 2 small bottle fragments
B	16416	not catalogued	Hs 3 Sq N3 /sp 5small bottle fragment
B	16416	not catalogued	Hs 3 Sq P9 Sp 4 small bottle fragment
B	16416	not catalogued	Hs 3 Sq M13 Sp 3 small bottle fragment
B	16416	not catalogued	Hs 3 Sq Q13 Sp 2 small window glass fragment
B	16426	partial catalogued	mostly fragment bottles; only 3 artefacts bigger than 40mm were catalogued - bottle fragments
B	16431	not catalogued	brown and light green bottle fragments
B	16443	not catalogued	brown bottle fragments
B	16458	not catalogued	many fragments of dark green and light green bottle glass
B	16470	all catalogued	early 20th century bottles - not 1960s fill
B	16489	not catalogued	all modern; machine made bottles
B	16594	partial catalogued	mostly small bottle glass fragments; 6 larger fragments catalogued - 5 bottles, 1 tableware

Area	context	Action	Description
B	16594	partial catalogued	small fragments from wet sieving not catalogued, dark and light green bottle glass
B	16750	partial catalogued	datable artefacts earlier than WW II; catalogued diagnostic larger than 40mm
B	16918	partial catalogued	small fragments of table glassware not catalogued
B	16925	not catalogued	small fragments of table glass, green bottle glass and fragments of a small vial
B	16929	partial catalogued	only a large section of a jug rim catalogued - all others small fragments of bottle glass and tableware
B	16932	not catalogued	window glass and green bottle glass
B	16932	partial catalogued	mostly larger than 20mm and catalogued; smaller uncatalogued items are mostly bottle fragments in various shades of green
B	16933	not catalogued	2 small fragments
B	16967	not catalogued	artefacts taken from boxes, examined, but all datable glass artefacts are post WW II
B	16967	not catalogued	very modern bottles - one (Jar Jam Co) since 2001
B	17015	partial catalogued	small fragments of light green bottle glass not catalogued
B	17069	not catalogued	one fragment dark green bottle glass
B	17069	not catalogued	fragments smaller than 20mm
C	16754	not catalogued	all modern; machine made bottles
C	16825	partial catalogued	whole bottles and large fragments catalogued; only a small bag of small fragments not catalogued.
C	17017	not catalogued	mostly machine-made bottles (whole or partial)

Area	context	Action	Description
D	17818	not catalogued	1 beer/wine bottle (1820-1870); 1 aerated water bottle; 1 miscellaneous bottle - all partial
D	17819	not catalogued	tiny fragments of 19th century beer/wine bottles
D	17845	not catalogued	1 complete modern ink bottle; window glass
B	16406	partial catalogued	one bottle catalogued for temporal placement; remainder is bottle and window glass fragments
C	16422	partial catalogued	catalogued 1 whole bottle and 3 partials; didn't catalogue window glass or fragments of about 15 different vessels.
C	16423	examples catalogued	temporal examples catalogued most early 20th century - (large partial artefact forms)
C	16427	partial catalogued	only 7 bottles with manufacturer or product embossments catalogued
C	16427	not catalogued	all modern; machine made bottles

Appendix B

Chronological and Locational Data for Manufacturers of Glass Artefacts

Chronological and Locational Data for Manufacturers of Glass Artefacts from 3PS – 154 Macquarie Street

Manufacturer	Manufacture Date		Country	MIC
Aire & Calden Glass Bottle Co.	1836	1913	England	6
Australian Glass Manufacturers	1912	1922	Australia	7
Australian Glass Manufacturers	1930	1982	Australia	28
Barrett & Elers	1884		England	6
Boyd's Genuine Porcelain Lined	1869		USA	1
Cannington Shaw & Co.	1880s	1915	England	3
City Bottle Company	1936		Australia	1
Cooper & Wood	1859	1928	Scotland	1
Crosse & Blackwell	1830	1900s	England	2
Dan Ryland	1886		England	1
Forster Glass Co	1902	1945	England	3
Hero Glass Works	1856	1884	USA	1
J Ross	1867	1893	Australia	1
John Kilner Caldervale Glassworks	1844	1847	England	1
John Lamont	1876	1900s	Scotland	448
Kilner Bros.	1873	1937	England	10
Lumb & Co.	1870s	1890s	England	1
Melbourne Glass Bottle Co.	1902	1915	Australia	2
Nuttall & Co	1872	1913	England	1
Parke, Davis & Co.	1875		USA	2
Pochet et du Courval	1623		France	1
Sykes Macvay & co	1860s	1894	England	1
Whitall-Tatum	1806	1935	USA	1
York City Glass Co.	1860	1900	England	1

Appendix C

Chronological and Locational Data for Products and Product Manufacturers

Chronological and Locational Data for Products and Product Manufacturers from 3PS – 154 Macquarie Street

Product Name	Description	Country	From	To	MIC
4711 Cologne	perfume	Germany	1800		2
4711 eau de Cologne	perfume	France	1881		1
Ayer's compound Ext. Sarsaparilla,	condiment	USA	1848	1941	1
B. Seppelt & Sons	wine	Australia	1851		2
Barry's Pearl Creams	face cream	USA	1872		6
Barry's Tricopherous For the Skin and Hair	patent medicine	USA	1851	1982	5
Blackwood & Co	ink	England	1861		1
Bovril Limited	condiment	England	1893		2
Bristol's Genuine Sarsaparilla	patent medicine	USA	1830s		2
C & J Summons	aerated water	Australia	1880s		24
C. Oppel & Co	bitters	Germany	1870		1
Carlsbad LS	mineral water	Austria	1880s	1890s	1
Champion's Vinegar	vinegar	England	1763	1910	2
Chesebrough MFG Co., Vaseline	grooming	USA	post 1880		2
Crystal Fountain Company	aerated water	Australia	1879	1893	1
Davis vegetable Pain Killer	patent medicine	USA	1985		1
Dicey & Co	patent medicine	England	1775		1
Dr Soule Hop Bitters	bitter	USA	1874-	1910	3
Dr Townsend's Sarsaparilla	patent medicine	USA	1839-	1870s	4
Drake & Co (Chemists) Irish Moss	patent medicine	Australia	1860s		1
E Rimmel Perfumer	perfume	France	1850		4
ETA Foods Ltd	peanut butter	Australia	1922		1
Felton & Grimwade	medicine	Australia	1865		1
Gelles Freres Parfumeurs	perfume	France	1836		1
George Whybrow	oil	England	1825	1899	13
Goodall Blackhouse & Co Yorkshire Relish	condiment	England	1837		1
Granular Citrate Of Magnesia; Bishop's	patent medicine	USA	1876	1915	5
Hauthaway's Peerless Gloss	grooming	USA	1881		1
Higgins Ink	ink	USA	1880		1
Hillier & Co Newtown	aerated water	Australia	1884	1895	1
Holbrook & Co.	club sauce	England	post 1872		3
Hora & Co.	castor oil	England	1860	1915	6
Hume & Pegrum	aerated water	Australia	1879	1898	11
Jerimiah Smith	aerated water	Australia	1881	1884	7
Jeyes Fluid	disinfectant	England	1877		6
John Starkey	aerated water	Australia	c1860	1912	1
Kay's Coaguline	contact cement	UK	1865		1
Kok for the Hair / Koko Maricopas Ltd	hair restorative	England	1897		1
Langton Scott & Edden	patent medicine	England	1846		3
Lea & Perrin's Worcestershire Sauce	club sauce	England	post 1837		8
Louden & Bath	aerated water	Australia	1904	1908	1
Marchant Ltd	aerated water	AUS	1909	1930	1

Product Name	Description	Country	From	To	MIC
Mather's Infant Feeding Bottle	nursing	England	1860		1
McIlraths	condiment	Australia	1904		1
Nathan & Wight	glue	USA			1
Newling & Walker	aerated water	Australia	1876	1906	458
NSW Bottle Company	beer	Australia	1909	1980	7
Pacific Manufacturing Company	laundry product	Australia	1910		1
Park David & Company	medicine	USA	1875		1
Pepsi Cola	soft drink	Australia	1945*[32]		2
Piesse & Lubin	perfume	USA	1888		1
Prat's Devonian Cream (Pratt mispelled)	hair restorative	Australia	1856	1900	1
Roger & Gallet, Paris	perfume	France	1890		4
Rowlands Macassar Oil	hair dressing	England	1793	1953	2
Row's Farmers Friend	Veterinarian ointment	England	1846		1
Rumford Chemical Works	baking powder and patent medicine	USA	1854	1948	1
S. Maw Son & Thompson Trademark	hygiene	England	1870	1895	1
Sawtell's Fruit Juice Ltd	soft drink	Australia			1
Scott's Emulsion Cod Liver oil with lime & soda	Patent medicine	USA	1871	1983	3
Senior Chemist (various product names	chemist	Australia	1859	1901	1
Sharp Bros	Ginger beer	Australia	1903	1972	5
Shelley's	soft drink	Australia	1923	1978	1
St Jakobs Oel; The Charles A. Vogeler Company		USA	1878	1900s	1
Summons & Graham	aerated water	Australia	1891	1985	9
Symington & Co Ess Coffee & Chicory	beverage	Scotland	1880		1
Thomas Butler	chemist	England	1825		1
Tooth & Co	beer	Australia	1835		1
Udolpho Wolfe's Aromatic Schnapps	schnapps	Netherlands	1848		34
Uriceden Stroschein	patent medicine	Germany	1920		1
Vandenbergh Co.	gin	Netherlands	1870	1890	1
Vici Leather Dressing	leather dressing	USA	1880s	1930s	1
W J Bradey & Sons	patent medicine	Australia	1920s		1
W. C. DOUGLASS LTD	food	Australia	1906	1963	1
W. G. Bladon	chemist compound	Australia	1870	1900	1
W.H. Comstock/ Morses Indian Root Pills/ Dose 2 to 4	patent medicine	USA	1835[33]	1980s	2
Watt's Pectoral Oxymel Of Caracheen Or Irish Moss	patent medicine - cough remedy	Australia	1856		1
Wellcome (or) Burroughs & Wellcome & Co	medicine	UK	1880		1

[32] Date first bottling plant opened in Australia.

[33] Date product was first imported into Australia.

Product Name	Description	Country	From	To	MIC
William Docker's Sun Brand	varnish	Australia	1913		1

Appendix D

Chronological and Quantitative Data for Posthole Deposits

(Areas A, A-South, B and C)

Chronological and Quantitative Data for Posthole Deposits from Area A

Context	Area	Description	MIC	From	To
16226	Area A	Packing	1		
17249	Area A	Packing	1		1830
17253	Area A	Packing	2	1810	1880
17257	Area A	Packing	2		
17265	Area A	Packing	2		
17267	Area A	Packing	1		
17283	Area A	Pipe fill	1		
17295	Area A	Pipe fill	2	1820	
17313	Area A	Packing	2		
17333	Area A	Packing	1	1820	
17343	Area A	Packing	4	1850	1900
17349	Area A	Packing	1		
17353	Area A	Packing	1	1790	1820
17367	Area A	Pipe fill	2		
17371	Area A	Packing	3	1800	1850
17373	Area A	Pipe fill	2	1820	1870
17375	Area A	Packing	3		
17377	Area A	Pipe fill	1		
17390	Area A	Pipe fill	3		
17400	Area A	Packing	1		
17416	Area A	Packing	1	1820	
17418	Area A	Packing	1		
17432	Area A	Pipe fill	1		
17440	Area A	Packing	1	1800	1850
17441	Area A	Pipe fill	1		
17449	Area A	Packing	2	1790	1820
17489	Area A	Packing	2		
17493	Area A	Packing	1		
17501	Area A	Packing	1		
17525	Area A	Packing	1		
17572	Area A	Packing	3	1800	1850
17574	Area A	Pipe fill	1		
17588	Area A	Packing	5	1820	1870

Chronological and Quantitative Data for Posthole Deposits from Area B.

Context	Area	Description	MIC	From	To
16474	Area B	Packing	3		
16475	Area B	Pipe fill	1		
16477	Area B	Packing	1		
16483	Area B	Packing	1		
16586	Area B	Packing	3	1850	1900
16652	Area B	Packing	13	1850	1900
16654	Area B	Pipe fill	4	1860	
16677	Area B	Packing	2		
16679	Area B	Pipe fill	1		
16681	Area B	Packing	2	1850	
16733	Area B	Pipe fill	2		
16809	Area B	Packing	1		
16810	Area B	Pipe fill	1		
16820	Area B	Packing	4	1848	1920
16838	Area B	Packing	1		
16859	Area B	Packing	2		
16861	Area B	Pipe fill	1		
16871	Area B	Packing	1		
16961	Area B	Packing	3	1820	1920
16969	Area B	Packing	5		
16975	Area B	Packing	1		
17129	Area B	Pipe fill	1		
17131	Area B	Packing	4	1840	1920
17166	Area B	Pipe fill	1		

Chronological and Quantitative Data for Posthole Deposits from Area C.

Context	Area	Description	MIC	From	To
16501	Area C	Packing	4	1800	1850
16510	Area C	Pipe fill	1	1820	1850
16515	Area C	Pipe fill	2	1820	
16519	Area C	Packing	2		
16524	Area C	Packing	4		
16530	Area C	Packing	1		
16548	Area C	Packing	1	1820	
16561	Area C	Packing	1	1848	
16642	Area C	Packing	4		
16646	Area C	Packing	14	1880	1900
16682	Area C	Pipe fill	2		

Context	Area	Description	MIC	From	To
16704	Area C	Packing	3		
16712	Area C	Packing	1		
16748	Area C	Packing	1		
16763	Area C	Packing	8	1902	1922
16767	Area C	Packing	3		1920
16787	Area C	Packing	6	1860	1900
16794	Area C	Packing	3	1840	
16867	Area C	Packing	1		
16883	Area C	Pipe fill	3		
16936	Area C	Packing	1	1840	
16948	Area C	Packing	3	1820	1880
16954	Area C	Packing	2		
16971	Area C	Packing	1		1920
16992	Area C	Pipe fill	1		
17032	Area C	Packing	2	1850	
17048	Area C	Packing	1		
17052	Area C	Pipe fill	2	1850	1920
17071	Area C	Pipe fill	1		
17073	Area C	Pipe fill	1		
17079	Area C	Packing	2	1788	1850
17081	Area C	Packing	1	1850	1920
17095	Area C	Packing	1		
17107	Area C	Packing	2	1812	1870
17113	Area C	Pipe fill	1		
17122	Area C	Packing	5		

Appendix E

Spatial Distribution of Area A and Area A-South

Historic Topsoil Deposits.

Distribution of Artefacts for Topsoil Deposits in Area A

		SQ Alpha/		AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AN/AP	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	C	W
Context	Spit	SQ No																											
16120		3									6																		
16120		12																				6	17						
16120		19																							11	3			
16120		20												3								6							
16120		21		2	18									1															
16120		22			13														8		9	4	3	3		10			
16120		23		5										11				15	9	5	4		9	1					
16120		24			6																4	7	6	3					
16120		25		5	9																					7			
16120		26																				7	9						
16120		27																			6								
16120		28							6																				
16120	1	30			2																								
16120	1	58																						1					
16245		14													2														
16245	1	14									6			3															
16245	2	14									3																		
16245	1	15			2						6		1	5															
16245	2	15									2				3														
16245	1	16										1	3	5	7														
16245	2	16									2				6														

		SQ Alpha/		AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AN/AP	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	C	W
Context	Spit	SQ No																											
16245		20												2															
16245		21												2															
16248	1	14			3	8	6																						
16248	2	14				6	3																						
16248	1	15				7	5	3		3																			
16248	2	15			2	3	5	5																					
16248	1	16			3	5	8																						
16248	2	16					4	1																					
16248	1	17					2																						
16248	2	17					2																						
16248		21											3																
16252		11									3																		
16282	2	10									5	1																	
16282	2	11									4																		
16282	1	12									2		1	4															
16282	2	12										2																	
16282	1	13											2	1															
16282	2	13										3		4															
16282	1	14									1			3															
16282	2	14										2																	
16318	3	36																		1									
16318	1	48																							9				
16318	1	52																2											
16318	4	52																1											
16318	1	58																						1					
16318	1	61																						4	1				

SQ Alpha/				AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AN/AP	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	C	W
Context	Spit	SQ No																											
16318	3	61																						1					
16318	5	61																						1					
16328		15															6												
16328	1	15																		5									
16328	2	15																		1									
16328	1	16															8		5	1									
16328	2	16															14	8	3	1									
16328	3	16															5			1									
16345		21												3															
16470	2	21																											1
16531	1	58																										1	
16531	2	63																										3	
17229		18														8													