



ARCHAEOLOGY  
OF THE MODERN CITY 1788-1900

# Assessment of Historical and Archaeological Resources of the Cumberland and Gloucester Streets site, The Rocks, Sydney

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## Introduction to the Historical and Archaeological Resources Assessment Reports

This is one of seven reports concerning the assessment of historical and archaeological resources at sites selected for the Exploring the Archaeology of the Modern City (EAMC). The series as a whole requires some introduction.

The assessment reports were written for each archaeological site by the EAMC team following the assessment of the status of resources available to the project. While they provide some background to the excavations and historical research undertaken at each site, the reports were not intended as a comprehensive history of such work. Rather, they are an assessment of whether the surviving *products* of that work were sufficient to justify further research within the scope of the EAMC project.

These reports were originally intended for review by Industry Partners only and have not been written for a general audience. It was decided many months after their preparation, that the contents were significant enough to warrant distribution to interested parties, despite containing some sensitive discussion of the work of peers.

All primary consultants discussed in the reports were provided the opportunity to comment on the presentation of their work prior to publication.

Any errors discovered in the assessment process are presented as matters of fact, and the EAMC assessment should not be read as a judgement upon the professionalism of the consultants and researchers discussed in the report.

Further, it is worth noting that the primary purpose of the EAMC reports should not be confused with a generalised evaluation of past work: resources considered to be inappropriate for EAMC work are not necessarily ruled out for use in other research contexts.

The systematic assessment of artefact catalogues in Australian historical archaeology is uncharted territory and the EAMC team had to develop their own methods to undertake this task. Any feedback on our approach and procedures is most welcomed.

We hope that the circulation of these reports will spark serious consideration of the many important issues raised by the need to systematically record data in heritage archaeology contexts.

*Professor Tim Murray*  
*Chief Investigator*



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## 1.0 INTRODUCTION

The Cumberland and Gloucester Streets site was excavated in 1994 by Godden Mackay Heritage Consultants Pty Ltd, now Godden Mackay Logan (GML), on behalf of the site owner the Sydney Cove Authority, now the Sydney Harbour Foreshore Authority (SHFA). The interpretation and analysis of the collection and associated archival resources was carried out between 1994 and 1996.

The 'Exploring the Archaeology of the Modern City' project (EAMC) has been established by the Archaeology Program of La Trobe University, and Industry Partners, to comprehensively analyse and interpret the large assemblages excavated from historical archaeological sites that are held in storehouses across Sydney. The aim is to develop a clearer and more precise understanding of Sydney's past material, personal and working worlds from its archaeological remains, than has been previously attempted in Sydney.

The archaeological collection from the Cumberland and Gloucester Streets site is among the suite of material selected for analysis in this project. Other collections include those from the Hyde Park Barracks, the Royal Mint, Susannah Place, the First Government House site, the Paddy's Market site and Lilyvale. Artefacts from each collection will be comprehensively analysed within their specific archaeological and broader historical contexts. Once each site has been successfully analysed and interpreted on its own merits, a program of inter-site research, analysis and interpretation will be undertaken to reach a new perspective on Sydney's past.

Prior to undertaking intra-site research, the records of each collection (excavation records and reports, the artefact database and related historical material) will be reviewed for their accuracy and their utility within the research program.

A review of records pertaining to the Cumberland and Gloucester Streets site archaeological collection was undertaken in August and October 2001.

This report presents the recommendations arising from the review, including details of work required to utilise the historical and archaeological site records in the EAMC project, and other recommendations that the SHFA may wish to consider (Section 3.0).

The details of the review itself are included as appendices. Appendix One provides an assessment of the documents and reports relating to the history and archaeology of the Cumberland and Gloucester Streets site, including an overview of works on the site, and levels of analysis and interpretation offered to date. Appendix Two provides a detailed review of the artefact database.

This report was prepared in November 2001 (and revised in June 2002, and May 2003) for the Industry Partners of the AMC Project: the Historic Houses Trust of New South Wales, the Sydney Harbour Foreshore Authority, Godden Mackay Logan Pty Ltd, the NSW Heritage Office, Heritage Victoria and the Sydney City Council.

### 1.1 AUTHORSHIP

Sections 1.0–3.0 were prepared by Penny Crook (Project Archaeologist). Appendix One was prepared by Laila Ellmoos (Project Historian) and Penny Crook. Appendix Two was prepared by Penny Crook. Tim Murray (Chief Investigator) reviewed this report.

## 1.2 ACKNOWLEDGEMENTS

Thanks to Wayne Johnson, the SHFA Archaeologist, for providing access to the Cumberland and Gloucester Streets site excavation records and artefact assemblage. Thanks also to Anne Mackay from GML and site excavators Graham Wilson and Martin Carney for their assistance with searching for lost records and to Grace Karskens for advice and information.

## 2.0 SUMMARY ASSESSMENT OF HISTORICAL AND ARCHAEOLOGICAL RESOURCES

The review of historical and archaeological records pertaining to the Cumberland and Gloucester Streets site, held by the SHFA was undertaken between August and October 2001 by the EAMC team. The team reviewed all historical and archaeological documents held by the SHFA<sup>1</sup> and undertook the analysis of a sampled portion of the artefact catalogue. Details of the review are included in Appendices One and Two. The major results and conclusions of the review are briefly outlined below.

The excavation of the Cumberland and Gloucester Streets site by GML at the instigation of the SHFA, was undertaken by a pioneering team that sought to integrate historical and archaeological evidence to advance their understanding of the site, its people and their social and physical environments. Their findings contested traditional histories of convict life and so-called 'slums' in The Rocks, and the suite of reports, books and articles produced by the team comprise the most comprehensive and engaging interpretation of an archaeological site than any other excavated in Sydney to date.

The excavation's original records are also comprehensive, but some are missing from the archive.

The catalogue of the vast artefact assemblage of the Cumberland and Gloucester Streets site was sampled in August and September and it was found that the vast majority of artefact records were excellent or satisfactory and that the catalogue as a whole is the most detailed catalogue included in the EAMC project. Unfortunately, however, there are some significant errors, oversights or problems that have affected several records. These include: the bulk-bagging of many artefacts from significant and less-significant contexts (a measure agreed upon by GML and SHFA to allow specialists to focus on contexts of greatest interest); the high rate (22.5%) of erroneous portions and omission of some inscriptions within the ceramics assemblage; and a small number of records omitted from the database altogether. (See Appendix 2: Section 4.0.)

From a quick tally of context types, there are at least 730 bulk bags that may require sorting in order to be used within the EAMC project, and an additional 430 or more may also require sorting. Other bags that may contain errors such as erroneous portions or omitted transcripts cannot be calculated at present, but are likely to be substantially fewer.

The EAMC team will prepare a selected list of contexts required for study in the project in April 2002 and will reconsider options for, and the level of, corrective or verifactory work necessary at that time. Consequently, the likely way forward for the EAMC analysis is to examine only a few houses from a few phases and seek additional funding to sort and catalogue these bags, preferably within the timeframe of the project.

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<sup>1</sup> Located at Foreshore House, the Merchants' House on George Street and the Howard O'Farrell store on Cumberland Street.

Owing to the exceptional research potential of the Cumberland and Gloucester Streets site artefact assemblage, and the considerable work already invested in the assemblage's study, it is imperative that additional work be undertaken to ready the database for comprehensive intra-site and inter-site research.

### 3.0 RECOMMENDATIONS

It is recommended that the EAMC team prepare a detailed list of contexts required for analysis in the project's study, and then reconsider options for, and the level of, necessary corrective or verificatory work on bulk-bagged and other artefacts.

#### 3.1 LIST OF SPECIFIC TASKS

Following is a list of tasks required to make catalogue records from selected, significant deposits of the Cumberland and Gloucester Streets site ready for comprehensive analysis (see 3.1.1). The EAMC team will undertake this list of tasks within the scope of the project.

Also provided are recommendations for the SHFA to consider (see 3.1.2), and other suggestions for improvements to the storage of the artefacts themselves (see 3.1.3). The latter are *suggestions only*, concerning issues that will not greatly impact upon the EAMC project.

##### 3.1.1 TASKS UNDERTAKEN FOR THE CURRENT EAMC RESEARCH PROGRAM

1. Investigate a means of identifying artefacts for which there is no corresponding record in the database (using the original data-entry sheet and ID-number log book).
2. Identify contexts required for analysis and consider the quantity of bulk-bagged artefacts that can be sorted and re-catalogued within the current EAMC research program.

##### 3.1.2 RECOMMENDATIONS FOR THE SHFA

3. Provide funding, as part of the ARC Linkage Scheme, for a post-doctoral research fellow to sort and re-catalogue the bulk-bagged material from crucial contexts.
4. Gather and copy duplicate records of context sheets and journals, where available (eg Martin Carney's trenches) and deposit with the State Library of NSW or State Records.
5. Re-label, re-organise and make an inventory of existing records to ensure that the excavation record is not further depleted.
6. Developing a strategy to manage archaeological site records, as part of the SHFA's overall archival strategy, including the consolidation of the original site records in the one location.

##### 3.1.3 IMPROVEMENTS TO BE CONSIDERED BY THE SHFA

7. Expedite the removal of the collection to better premises; or stabilise the condition of artefacts at the Howard O'Farrell store in the short-term by relocating boxes away from damp spots, repairing windows and shoring up the piles of boxes.
8. Re-box artefacts from damaged boxes when removed to Foreshore House.

*(In July 2002, the assemblage was relocated to Foreshore House.)*

## 4.0 APPENDICES

*Appendix One:* Assessment of Records Relating to the History and Archaeology of the Cumberland and Gloucester Streets site

*Appendix Two:* Sampling the Accuracy and Utility of the Artefact Catalogue

## Appendix One:

# ASSESSMENT OF RECORDS RELATING TO THE HISTORY AND ARCHAEOLOGY OF THE CUMBERLAND AND GLOUCESTER STREETS SITE

## 1.0 BACKGROUND

The Cumberland and Gloucester Streets site (known colloquially as the ‘Big Dig site’ or the ‘Dig site’) in The Rocks is bounded by Cumberland Street to the west, Gloucester Street to the east, the Australian Hotel and adjacent shops to the north and the Jobbins Terraces and 130 Cumberland Street to the south.<sup>2</sup> Although when excavated the site was vacant and had been used for various industrial purposes throughout the 20th century, it was part of a densely populated residential and commercial block for much of 19th century, intersected by two laneways: Cribbs Lane (running east–west) and Carahers Lane (running north–south).

Shortly after the arrival of the First Fleet to Australia in 1788, dwellings or huts constructed from wattle-and-daub began to appear on the rocky ridges above the west side of Sydney Cove, prior to the land being officially granted (Karskens 1999a: 27). According to the archaeological evidence of post-holes cut into the bedrock on the Cumberland and Gloucester Streets site<sup>3</sup>, it appears that such dwellings were constructed there in this early period. More substantial dwellings constructed from ‘hammer dressed rubble stone’ or weatherboard began to be built on the site from the 1810s, although as historian Grace Karskens notes, these did not necessarily replace the older huts, but instead they ‘often co-existed, one sitting in front of or behind another for some years’ (Karskens 1999a: 31). Later still, ‘buildings on the site become more distinct – heavy stone foundations, marking walls and rooms instead of the hints of patterns of darkened earth’. By 1822, there were 12 identifiable households located on the Cumberland and Gloucester Streets site (Karskens 1999a: 33).

In the mid-1830s, the freehold title for the wedge-shaped residential block bounded by Cumberland, Gloucester and Little Essex Streets was granted, with the block subdivided into 38 allotments within Sections 74 and 75, the Town Plan of Sydney (Kass 1989: 4).<sup>4</sup> However, from at least 1795, as noted above, a number of families had taken up unofficial residence on these allotments before they were formally granted. For example, convict couple Ann Armsden and George Legg lived in a house fronting Gloucester Street from around 1795 until 1807 (following Legg’s death in 1807, Armsden occupied another house on the site with second husband George Talbot until 1822) (Karskens 1999a: 33–34, 1999b: 76). Richard Byrne and his wife Margaret Kelly, also convicts, built a weatherboard cottage on the site in around 1807,

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<sup>2</sup> The allotments comprise 106–128 Cumberland Street and 79–101 Gloucester Street.

<sup>3</sup> The post-holes were uncovered during the 1994 excavations.

<sup>4</sup> There were originally 38 allotments on the site: 21 allotments in Section 74 and 17 allotments in Section 75.

where they lived together and reared their seven children for over a quarter of a century (Karskens 1999a: 35–39). George Cribb, a butcher by trade, bought up land and houses there from their ‘de-facto owners’ shortly after he was transported to the colony in 1809. By 1813, Cribb was the owner of the southern portion of the Cumberland and Gloucester Streets site, where he lived in a house on Gloucester Street and ran a butchers shop adjacent, with a slaughter-yard at the rear (Karskens 1999a: 39–44).<sup>5</sup>

Following the regularisation of freehold titles from the 1830s onwards, there was a shift away from owner-occupancy towards tenant-occupancy on the Cumberland and Gloucester Streets site. As well, some of the long-standing residents on the site received freehold title on the land that they had ‘owned’ and occupied since they settled there, such Margaret Kelly (Karskens 1999a: 38). As well, while over 600 people have been identified as living on the Cumberland and Gloucester Streets site throughout the 19th century, genealogical and archival research indicates there were strong familial and communal ties between them, with many families ‘circulating and settling around the site’ (Karskens 1999a: 168).

From the 1830s until the 1860s, new houses were quickly built on the site, some replacing the old, others springing up in available spaces ‘in the old yards and garden ground’ (Karskens 1999b: 85). At this time, purpose-built shops were constructed on the Cumberland Street frontage, as was some speculative housing including a row of buildings at 120–128 Cumberland Street which replaced a row of tenements built by George Cribb ten years previously (Karskens 1999a: 45–46). In the 1850s and 1860s, when the site was at its most populous, it is estimated that there were around 30 buildings on the site accommodating approximately 165 people, not including lodgers and guests<sup>6</sup> (Karskens 1999b: 93).

Between c1795 and the 1870s, the population of the Cumberland and Gloucester Streets site, and indeed The Rocks generally, was from a range of socio-economic backgrounds, including ‘almost all ranks—wealthy, middling and poor’. However by the 1870s, ‘its people were increasingly of the skilled, unskilled and semi-skilled working classes’, with men employed locally in the shipping industry or on the wharves, while women tended to work in pubs, shops and boarding houses (Karskens 1999a: 18). This changing demographic, and perceptions of The Rocks as a slum perpetuated in the popular press, meant that this part of Sydney was a target for reform in the late-19th century. In a precursor to the Government intervention that would come into the lives of the residents of the Cumberland and Gloucester Streets site at the turn of the 19th century, two houses on the site were demolished in 1891 at the instigation of the City of Sydney Improvement Board: one at 122 Cumberland Street, the other on the corner of Cribbs Lane.

The Cumberland and Gloucester Streets site has been owned by the State Government since 1901, when it resumed the 30 or so buildings located there, as well as many other houses, shops and factories in The Rocks area, under the *Darling Harbour Resumptions Act 1900*, in response to the bubonic plague outbreak in 1900.<sup>7</sup> In 1936, the Government landlord, the Sydney Harbour Trust, was taken over by the Maritime Services Board (MSB), followed by the Sydney Cove Redevelopment Authority (SCRA) in 1970

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<sup>5</sup> When his fortunes faltered in the late 1820s, Cribb sold his properties in The Rocks and moved away from the area.

<sup>6</sup> Apart from houses, there were also several shops and pubs located on the site.

<sup>7</sup> When the State Government resumed properties in The Rocks and Millers Point, some came under the control of the Sydney Harbour Trust. Other properties in this area were administered by the State Government under the auspices of the Resumed Properties Department (1904–1914), then the Office of the Housing Board (1914–1924) and finally the Sydney Harbour Trust (1924–1936).

under the *Sydney Cove Redevelopment Authority Act 1968*. Today, the site continues to be owned and managed by the State Government, under the control of the Sydney Harbour Foreshore Authority (SHFA), formerly the SCRA (1970–1991) and the Sydney Cove Authority (SCA) (1991–1998).

Following their resumption by the State Government, buildings on the Cumberland and Gloucester Streets site were removed in piecemeal fashion from the turn of the century until the late 1920s. For example, some buildings were demolished soon after they were resumed in 1901, such as the terrace houses lining Carahers Lane, while another building at 128 Cumberland Street was not demolished until 1938 (Karskens 1999a: 194). For the most part, however, the Government demolished the majority of the buildings still remaining on the block by around 1915 for road realignment. A substantial portion of the site was then occupied by a machinery and joinery workshop used by Norton Griffiths between 1917 and 1921, and later, by the City Railways (Karskens 1999a: 195). The workshop was demolished sometime around 1934, and the entire site was levelled and covered with bitumen and cement. The Urban Transit Authority (earlier the Department of Government Transport) used the Cumberland and Gloucester Streets site as a bus depot, which accommodated 38 government buses, from this time until the early 1970s, when the site was used for storage by the SCRA.

A number of development proposals were put forward for the Cumberland and Gloucester Streets site from 1970, when it was transferred from the control of the MSB to the SCRA. In 1970s, the SCRA named the wedge-shaped block bounded by the Cahill Expressway and Cumberland and Gloucester Streets as Site C7/C8<sup>8</sup> and zoned it for development. An interim conservation order was placed on this site in 1979 in response to concerns about development plans for the remaining buildings on the site, expressed by the Authority, the NSW Heritage Council and the National Trust (PWD 1986: 31).

In 1986, an inter-departmental Task Force headed by the Department of Education and the Public Works Department (PWD) suggested Site C7/C8 as the location for a purpose-built building to supplement the Greenway designed Conservatorium of Music building in the Domain. The Conservation Analysis and Feasibility Study prepared for the site by the PWD later that year included a provision to retain the extant heritage buildings located there (PWD 1986: 31). Although this development proposal did not go ahead, plans to develop the site were again underway two years later.

In early 1988, the SCRA prepared a development brief for Site C7/C8 and later that year, selected Develco Pty. Ltd. to redevelop it. As the SCRA determined that the proposed development would have a 'significant affect on the environment' under S.112 of the Environmental Planning and Assessment Act, Develco was obliged to prepare an Environmental Impact Statement, which was completed by Scott Carver in March 1989. Some of the constraints for the developer included the retention of the terraces at 130–138 Cumberland Street and 103–115 Gloucester Street. The development was also required to maintain context and scale both with these groups of heritage buildings and the surrounding area (SCRA 1989: 3). Again, however, this development proposal did not come to fruition.

By the early 1990s, steps were taken to conserve buildings on site C7/C8 site, independent of a larger development, including the Jobbins Terraces in 1991–1994 and buildings at 130–138 Cumberland Street in

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<sup>8</sup> Site C7/C8 (sometimes including Site C4) contained the Cumberland and Gloucester Streets site as well as surrounding terrace buildings at 103–115 Gloucester Street (later known as the Jobbins Terraces) and 130–142 Cumberland Street, and the Australian Hotel. Note also that the site was known as C2 in the planning document titled 'Basic Date for Planning', which was produced for the SCRA by UPDA in July 1970.

1996–1997.<sup>9</sup> This meant that the Cumberland and Gloucester Streets site, at this time still a vacant block overgrown with weeds and covered in building waste, was considered separately for development. A ‘residential development’ was proposed for the site in around 1993, to commence in 1994–1995. As it was decided to dig before building work began, the Sydney Cove Authority (SCA, now the Sydney Harbour Foreshore Authority; ‘SHFA’) commissioned Godden Mackay Heritage Consultants Pty Ltd (now Godden Mackay Logan; ‘GML’) to undertake the archaeological excavation of the site. At this time, the excavation of the Cumberland and Gloucester Streets site was considered to be the last of the ‘big digs’ in the foreseeable future. It is clear from the archaeological study brief, issued by the SCA in early 1994, that the mammoth effort of the excavation was recognised, with four major stages of work identified. These stages of work included the preliminary investigation of the site; site preparation and excavation; production of a preliminary management report; post excavation cataloguing and specialist examination of excavated material and data; and the production of the final report.

Archaeological excavations were carried out between April and October 1994. Following excavation, the assemblage and individual artefacts were analysed by a specialist team, artefacts were catalogued and further historical research was undertaken, all of which contributed to the production of the final Archaeological Investigation Report, comprising six volumes, in 1996 and 1999. In 1998, development seemed likely to proceed following a design proposal by Allen Jack & Cottier for housing, which recognised the archaeological potential of the site. However, the Cumberland and Gloucester Streets site has remained empty since the completion of archaeological work in 1994, despite the numerous plans for development there since the mid-1980s until the late 1990s. Following the formation of the SHFA in 1999, development of the Cumberland and Gloucester Streets site was postponed as it was considered financially unviable. It is envisaged, however, that future proposals will be informed, if not determined by, the conservation and public interpretation of the archaeology of the site. In the meantime, the site is opened to the public for tours and educational programs conducted through SHFA and the HHT, who manage the Susannah Place Museum on Gloucester Street, opposite.

## 2.0 HISTORICAL, ARCHAEOLOGICAL AND CONSERVATION WORK UNDERTAKEN AT THE CUMBERLAND AND GLOUCESTER STREETS SITE

Table I provides a detailed list of the projects that have been undertaken on the Cumberland and Gloucester Streets site since the 1970s. The historical, conservation and archaeological components of these projects are discussed in turn in below. Note that the archaeological and historical work undertaken by Godden Mackay and Grace Karskens on the Cumberland and Gloucester Streets site between 1994 and 1996 is outlined in 2.0 of the Executive Summary (Vol. 1) of the Archaeological Investigation Report (GML 1999: 17–23).

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<sup>9</sup> Building specifications were prepared for 130–142 Cumberland Street and 103–119 Gloucester Street in 1990, and a conservation analysis and guidelines was prepared for 130–142 Cumberland Street in 1991.

**Table I** Conservation, archival and archaeological projects undertaken on the Cumberland and Gloucester Streets site since the 1970s.

Year	Details	Reports
1979	Interim Conservation order on the site	
1986	Conservation Analysis for Site C7/C8 prepared by the PWD, including an historical overview authored by Grace Karskens	PWD 1986, Karskens 1986
1989	Environmental Impact Statement prepared for Develco Pty. Ltd, the selected developer for Site C7/C8, by Scott Carver. Includes archaeological and historical analyses as appendices, prepared by Edward Higginbotham and Terry Kass respectively. Report determined that the site had the potential to contain intact deposits.	Carver 1989, Kass 1989, Higginbotham 1989.
Jan 1994	Brief for archaeological excavation of site issued by the SCA	See Godden Mackay 1994
Feb 1994	Godden Mackay awarded the contract to undertake archaeological excavation and ensuing interpretation of the site	Godden Mackay 1994
April 1994	Archaeological Assessment and Research Design prepared by Godden Mackay and Grace Karskens	Godden Mackay & Karskens 1994
Apr–Oct 1994	Excavation by Godden Mackay	See Godden Mackay 1996 or GML 1999
May 1994	Historical Discourse prepared by Grace Karskens	Karskens 1994
Oct 1994	Preliminary Management Report prepared by Godden Mackay	GML 1994b
Oct 1994–July 1996	Post-excavation analysis	
Sept 1996	Final reports issued	Godden Mackay 1996
July 1996	Summary report prepared outlining the key issue and potential approaches to development on the site	Le Plastrier, Thalís and Tzannes Associates 1996
1997	Development brief written and submitted for a housing development comprising 25–35 dwellings. Expressions of interest requested from nine architectural firms, with a design by Allen Jack & Cottier selected.	
1996–1997	Artefacts on display in the Visitors' Centre on George Street in 1996. In 1997, a book authored by Max Kelly and produced by SCA, titled <i>Anchored in a Small Cove</i> , was published to accompany this exhibition.	Kelly 1997
1998	SCA decide to go ahead with development for housing on the site. Development Application submitted in June, and Environmental Impact Statement prepared by Sydney Cove Authority in July 1998.	SCA 1998
Feb 1999	Proposed housing development on the dig site postponed	
1999	Publication of Karskens' <i>Inside The Rocks: Archaeology of a Neighbourhood</i>	Karskens 1999a
1999	GML publishes the site reports	GML 1999
1999	SHFA's new on-site interpretation with brochure	
1999	BA hon's thesis on five houses from the site by Penny Crook	Crook 1999
2000	GML awarded the National Trust Award for the print category	GML & Karskens 2000

## 2.1 HISTORICAL ANALYSIS

The history of the buildings formerly located on the Cumberland and Gloucester Streets site in the 19th century, and the people who lived in them, has been well researched and documented since the mid-1980s.

In 1986, the NSW Public Works Department (PWD) commissioned Grace Karskens to prepare an historical outline of the wedge-shaped block bounded by Cumberland and Gloucester Streets, the Cahill Expressway and the Australian Hotel, which included the Cumberland and Gloucester Streets site. Karskens' historical outline formed part of a conservation analysis of the site, which was the proposed location for additional accommodation to supplement the Greenway-designed Conservatorium of Music building in the Domain.

In February 1989, Terry Kass and Edward Higginbotham were commissioned to undertake an historical and archaeological analysis of Site C7/C8 (the same wedge-shaped block covered in Karskens' earlier report) for an appendix to an Environmental Impact Statement prepared by Scott Carver for Develco Pty. Ltd.

Five years later, in April 1994, Karskens produced a detailed history of the Cumberland and Gloucester Streets site, prior to its excavation by Godden Mackay for SCA, which was expanded upon a month later for an 'Historical Discourse'. Karskens was also instrumental in developing the research questions for the project (discussed further in Section 5.0).

Two years after archaeological excavations were completed in 1996, Karskens prepared the Main Report (Volume Two) for the Archaeological Interpretation Report (comprising six volumes in total), titled: *New Perspectives from The Rocks*. In 1999, Karskens undertook the most recent and comprehensive historical and archaeological analysis of the Cumberland and Gloucester Streets site produced to date, which substantially drew upon the earlier report. In this year, Karskens' analysis of the site appeared in two publications: *Inside The Rocks: The Archaeology of a Neighbourhood* published by Hale & Iremonger and the revised second volume of the Archaeological Investigation Report published by GML.

## 2.2 CONSERVATION AND CULTURAL RESOURCE MANAGEMENT

### 2.2.1 CONSERVATION

As noted in the Section 1.0 of this appendix to the Assessment Report, there are no remaining buildings located on the Cumberland and Gloucester Streets site. As such, there are no conservation issues related to extant physical fabric. Instead, conservation issues are centred on the remaining archaeological remains and foundations.<sup>10</sup>

While the Cumberland and Gloucester Streets site is not currently listed on the State Heritage Inventory or the Register of the National Estate, it is included on the SHFA's draft State Heritage Inventory on the strength of its archaeological potential.<sup>11</sup> As well, surrounding buildings included in the Gloucester Street Precinct, such as the Bakers Terrace, Jobbins Terraces and Susannah Place, were listed by the National Trust in 1978 and were also included on the Register of the National Estate in 1980.

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<sup>10</sup> Following the 1994 excavations, steps were taken to conserve the archaeological remains as outlined in the preliminary Archaeological Management Report (GML 1994: 39-44). See also the conservation report for archaeological remains prepared by OHM for SHFA in 1999 (OHM 1999).

<sup>11</sup> Inventory number SHI 4500363, updated 28 September 2001, to be included on the State Heritage Inventory in late 2001.

A Statement of Significance was prepared for the Cumberland and Gloucester Streets site in 1986 (PWD 1986: 48–49), although at this time, the Cumberland and Gloucester Streets site was part of Site C7/C8, bounded by Cumberland Street, Gloucester Street and the Cahill Expressway. An updated Statement of Significance, focused on the Cumberland and Gloucester Streets site specifically, was prepared by Godden Mackay for the Preliminary Management Report in October 1994 (GM 1994: 23–36) and in the Executive Summary of the Archaeological Investigation Report (GML 1999: 38–45).

The Cumberland and Gloucester Streets site also featured in archaeological reports and conservation plans produced on surrounding sites in Gloucester and Cumberland Streets. For example, the Cumberland and Gloucester Streets site was mentioned in the Conservation Plan for Susannah Place terrace, prepared by Robert A. Moore Pty. Ltd. and the Historic Houses Trust of New South Wales (HHT) in 1989. One of the constraints arising out of the Statement of Significance for the terrace was the impact of proposed development on the site opposite, and its integrity in the context of the surrounding area (such as heritage value and height), and Susannah Place in particular. In addition, proposed development was considered a threat ‘to the archaeological potential of the site...[which] is potentially a rich source of information about the local area’ (Moore 1989: 33).<sup>12</sup>

### 2.2.2 CULTURAL RESOURCE MANAGEMENT

In the 1970s, the SCRA designated the wedge-shaped block surrounded by Cumberland and Gloucester Streets and the Cahill expressway as the Cumberland Street site or Site C7/C8 and zoned it for development.<sup>13</sup> In 1979, an interim conservation order was placed on the site, owing to concerns about development there, which later saw the implementation of statutory controls to limit the scale of development (PWD 1986: 31).

In 1986, the SCRA identified Site C7/C8 as the most suitable location for supplementary accommodation for the Greenway-designed Conservatorium of Music in the Domain. The PWD developed a Feasibility Study as well as a Conservation Analysis of the Cumberland and Gloucester Streets site, which included an historical outline prepared by Karskens (discussed above). However, this proposal for the development of Site C7/8 did not come to fruition.

In early 1988, the SCRA called for submissions for the development of a hotel or serviced apartments on site C7/C8, which retained the extant buildings. Later that year, the Minister for Planning announced Develco Pty. Ltd. as the nominated developer for the site. In 1989, Scott Carver was appointed by Develco to undertake an Environmental Impact Statement (EIS) of the development proposal (SCA 1989: 2). Terry Kass and Edwards Higginbotham were commissioned to undertake an historical and archaeological assessment of the site as part of this EIS. Again, however, this development proposal did not proceed.

By the 1990s, work was underway to conserve some of the buildings identified as heritage, located on site C7/C8, independent of the development of the entire block, such as the Jobbins Terraces (103–115 Gloucester Street) in 1991–1994 and buildings at 130–138 Cumberland Street in 1996–1997. With attention diverted to the heritage buildings on the site, development was instead focused on the vacant block that had been in use as a bus depot from the 1930s. In 1993, the SCA announced their plans to

<sup>12</sup> See also reports on the Jobbins’ Building, Longs Lane, Bakers Terrace, 132–140 Cumberland Street & Australian Hotel.

<sup>13</sup> The Cumberland Street site included the ‘Dig Site’ as well surrounding buildings such as the Jobbins’ Terraces, the Australian Hotel and 130–138 Cumberland Street

develop this vacant block and issued a brief in early 1994 for the archaeological excavation of the site prior to construction work.

### 2.3 ARCHAEOLOGY

In 1989, Edward Higginbotham undertook an archaeological analysis of the Cumberland and Gloucester Streets site for Develco Pty Ltd, and determined that building foundations and other deposits relating to occupation and development on the site throughout the 19th century were likely to survive intact (Higginbotham & Kass 1989).

The re-development proposed by Develco did not proceed, but in 1994 a new plan for residential development was proposed and a brief issued for comprehensive archaeological excavation prior to determining the nature of the residential scheme.

The site was finally excavated between April and October 1994 by Godden Mackay Pty Ltd (now Godden Mackay Logan Pty Ltd) on behalf of the Sydney Cove Authority (now the Sydney Harbour Foreshore Authority). The team comprised twenty archaeologists, planners, conservators, specialists and historian Grace Karskens and was supported by more than 500 volunteers (GML 1999, Vol 1: 12, 13; see Table 2).

Over 500,000 artefacts and the remains of more than forty separate buildings dating from 1810, were preserved under the bus-parking bitumen and contemporary service trenches. Five-thousand cubic metres of deposit were removed. The buildings included residences, pubs and shops at the following addresses:

1. 128 Cumberland Street (1833–c1931)
2. Nicholas Terraces (4 dwellings)
3. Berry's Bakery
4. 1 Carahers Lane (c1850–c1902)
5. 3 Carahers Lane (not excavated in full)
6. 5 Carahers Lane (c1856–c1902)
7. George Cribb's House, later Whalers' Arms Hotel
8. George Cribb's Shop
9. 'Bird in Hand' Hotel
10. King House
11. Massey's Terraces (c1848–after 1907)
12. Australian Hotel
13. Byrne House
14. William's House
15. Berry's Terraces: 108–114 Cumberland Street
16. 'Italianate shop'
17. 4 Cribbs Lane
18. Armsden–Legg, then Armsden–Talbot House
19. Doyle–Flowers House
20. Whale Fishery Hotel
21. Gloucester Street terraces

While this list is extensive, the deposits of many more houses and structures were left unexcavated in 1994, awaiting future investigation.

The project received wide-spread attention in the print media, on television and radio and soon became known as the 'Big Dig' (GML 1999, Vol 1: 19–20).

Following the completion of the excavation, the archaeological team embarked on an unprecedented artefact-analysis project, processing an estimated 750,000<sup>14</sup> artefacts, or 70,000 bags, in eleven months. The artefact catalogue was entered into the SCA's artefact database (see Snelgrove 1990).

Once the artefact analysis was completed, the specialists prepared detailed reports on each artefact catalogue. These reports far exceed the standard consultant artefact report. Not only do they provide a detailed, descriptive list of type-series classifications, but an extensive and comprehensive research essay and opportunities for future research. (See Sections 4.0 and 5.0 of this Appendix for a detailed discussion.)

These artefact reports, and the trench reports (see 3.2.1 below), together formed the basis of the Main Report, written by Karskens, which interlaced the archaeological remains with the author's historical research. This report formed the basis a popular book *Inside The Rocks: the Archaeology of a Neighbourhood*, published in 1999. In the same year, GML published the site reports, and both were launched on site in August 1999, along with SHFA's new on-site public interpretation<sup>15</sup>.

**Table 2** List of personnel involved in the Cumberland and Gloucester Streets site archaeological investigation (GML 1999, Vol I: 19).

	<b>Excavation</b>		<b>Post-excavation</b>
<i>Excavation Director</i>	Richard Mackay	<i>Glass &amp; bottle stoppers</i>	Martin Carney
<i>Site supervisor</i>	Graham Wilson	<i>Building Materials</i>	Kevin Barnes
<i>Trench supervisors</i>	Martin Carney, Kate Holmes, Nadia Iacono & Dominic Steele	<i>Ceramics &amp; tobacco pipes</i>	Graham Wilson
		<i>Metal</i>	Kate Holmes
<i>Archaeological Assistants</i>	Kevin Barnes, Nadia Iacono & Dominic Steele	<i>Miscellaneous</i>	Nadia Iacono
<i>Interpretation Officer</i>	Iain Stuart	<i>Leather</i>	Rebecca Bower
<i>Technical support</i>	Matthew Kelly	<i>Animal bone &amp; shell</i>	Dominic Steele
<i>Draftpersons</i>	Franz Reidel and Christina Kanellakis	<i>Coins, medals &amp; tokens</i>	Wayne Johnson
<i>Project Historian</i>	Grace Karskens	<i>Soil samples</i>	Roy Lawrie
<i>Material conservators</i>	Catriona Angus (ICS) & Colin Macgregor (Australian Museum)	<i>Parasites &amp; macrobotanics</i>	Claire Everett
		<i>Palynological</i>	Mike McPhail
<i>Specialists</i>	Roy Lawrie (soils), Mike McPhail (pollen) and Clare Everett (parasites)	<i>Drafting of site plans</i>	Christina Kanellakis
<i>Photographer, Site Manager</i>	Patrick Grant		

<sup>14</sup> It is unclear where this figure came from. At present, there are 373,642 quantified sherds and 3,189 bags for which quantities were not specified. These are the bulk bags, and estimating they contain around 100 sherds a bag, the total site assemblage becomes 692,542, which is closer to the estimated 750,000 sherds.

<sup>15</sup> The site signage was later vandalised and removed. The SHFA will soon be installing new signage.

## 3.0 RECORDS AND REPORTS

### 3.1 HISTORICAL RECORDS AND REPORTS

Since the late 1970s, over 60 publications have been prepared for the Cumberland and Gloucester Streets site in The Rocks. These include:

- Archaeological reports
- Conservation reports
- Educational programs
- Brochures
- Annotated bibliographies
- Historical reports
- Maintenance and structural reports
- Development Briefs
- University Theses
- Environmental Impact Statements

Full bibliographic references for these publications, most of which were prepared by, or on behalf of the SHFA are included at the end of this report.

#### 3.1.1 SYDNEY HARBOUR FORESHORE AUTHORITY

The SHFA holds considerable information about the Cumberland and Gloucester Streets site and surrounding buildings, particularly relating to its ownership of the site from 1970 onwards. This material includes historical, conservation and archaeology reports, correspondence, planning and heritage documentation, newsletters, annual reports, leases and official files. Although not within the scope of the EAMC project, this material has considerable research potential and needs further analysis as it illustrates evolving approaches to heritage conservation practice in The Rocks in the late-20th century.

The SHFA Library houses substantial information about The Rocks generally, including books, magazines and reports. The Library also contains reproductions of historical maps and photographs, as well as limited historical research undertaken since the formation of the SCRA in 1970, such as information collated about pubs in the area, or references to newspaper articles about The Rocks. However, there is little historical information located within the Library that specifically relates to the Cumberland and Gloucester Streets site, apart from some of the maps and photographs. Notably, reproductions of primary documents sourced for the project are not readily available on-site (a different approach to the Hyde Park Barracks Museum or the Museum of Sydney, whereby most research material has been kept on-site).

#### 3.1.2 RESEARCH TOOLS

Research materials, such as reproductions of primary documentation relating specifically to the site, are not available at the SHFA Library.<sup>16</sup> However, the bibliographies contained in both *Inside The Rocks* and *The*

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<sup>16</sup> The results of wider historical research on The Rocks, and the Cumberland and Gloucester Streets site in particular, are in the

*Rocks: Life in Early Sydney* provide the references for these sources. In addition, some of the results of the historical research undertaken since 1994 have been used to develop 'research tools' to better understand the Cumberland and Gloucester Streets site. These are outlined below.

#### *Rocks Bibliographic Database*

It is unclear who first developed The Rocks Bibliographic Database. A printed and bound copy of a Rocks Bibliography, its cover dated c1991 and its author identified as Grace Karskens, is located in the SHFA Library. It is not known if this database was created specifically for the excavation of the Cumberland and Gloucester Streets site or for the purpose of wider research on The Rocks for post-graduate study. It is understood that the database from which this printed copy is derived, was later developed and updated by GML for the SHFA, for the purpose of The Rocks Heritage Management Plan (Karskens 1999b: 65).

#### *Cumberland and Gloucester Streets site occupancy database*

Penny Crook used the occupancy details listed in the Appendix of third volume of the Archaeological Investigation Report (GML 1999) to develop a relational database linking archaeological remains with the site residents for purpose of her honours thesis. This list presented in the report was primarily based on data gathered by Nadia Iacono and Grace Karskens (see Karskens 1999b: 65), from Sand's post-office directories, City Council rate books, musters, census information, newspaper reports, publican's licence registers and district constable's notebooks (GML 1999, Vol 3: 371).<sup>17</sup>

For the purpose of the EAMC project, this data, now contained in the occupancy database prepared by Crook, will be updated to include full references as well as the personal details of occupants at the Cumberland and Gloucester Streets site (such as births, deaths and marriages).

#### *Insolvency database*

Penny Crook prepared a database for recording insolvency records for the purpose of her honours thesis, completed in 1999. While this database contains a limited number of records, it has the potential to be updated in the lifetime of the EAMC project.

### **3.2 EXCAVATION AND ARTEFACT RECORDS AND REPORTS**

The excavation of the Cumberland and Gloucester Streets site was reported upon within two years of the completion of the excavation. The trench reports and excavations are extensive and detailed, and provide synthetic as well as descriptive information.

The original site records were recently re-located from Merchants' House in George Street, The Rocks, to the SHFA's head office in Harrington Street. Some records have been lost since last sighted in 1998 at the Visitor's Centre on George Street (see Table 3 below).

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possession of Grace Karskens.

<sup>17</sup> Grace Karskens also prepared an occupancy database in Filemaker Pro for the Cumberland and Gloucester Streets site, derived from the same sources.

**Table 3** Summary of excavation and artefact records and reports.

Project	Original records	Reports
Excavation	<ul style="list-style-type: none"> <li>▪ Context Sheets for Areas A, B, E, F, G, H (Areas C, D, J are missing)<sup>18</sup></li> <li>▪ Notebooks for Trenches B (2 books) and E, copies of the notebook for C, D &amp; J (Trenches A and F-H are missing)</li> <li>▪ Black and white photographs (8 albums)</li> <li>▪ Slide register (1 book)</li> <li>▪ Drawing register</li> <li>▪ Original Plans</li> <li>▪ Colour slides (held at GML)</li> </ul>	GML 1996 Vol 3: Wilson (Area A), Holmes (Area B), Carney (Areas C, D, J), Iacono (Area E) and Steele (Areas F, G, H)
Artefact cataloguing	Artefact and type series sheets for: <ul style="list-style-type: none"> <li>▪ Glass (1 box),</li> <li>▪ Ceramics (3 boxes),</li> <li>▪ Miscellaneous (1 folder, 1 box &amp; 2 envelopes),</li> <li>▪ Bone and Shell (7 envelopes), and</li> <li>▪ Building Materials (1 bag)</li> <li>▪ Metal (2 envelopes)</li> </ul>	GML 1996 Vol 4: Carney (glass), Barnes (building materials), Wilson (ceramics), Holmes (metal), Iacono (miscellaneous), Bower (leather), Steele (bone and shell), Johnson (coins), Lawrie (soil), Everett (parasites and plants), McPhail (pollen)

### 3.2.1 STRATIGRAPHIC RECORDING AND REPORTING

The records created during the excavation of the Cumberland and Gloucester Streets site are comprehensive and reliable, although some key documents have been lost. Journals and context sheets for each trench were kept (although some are missing) and there are colour slides and black-and-white prints, and over 200 plans and sections of features revealed during excavation (see GML 1996: Volume 6).

This suite of information has been synthesised into clear, concise and detailed trench reports prepared by the supervisor of each area (GML 1999: Volume 3). These provide a clear description and assessment of structural remains and significant artefact deposits recovered from the trench, along with lists of all contexts and comprehensive stratigraphic matrices.

The Context Sheets for Areas C, D, J and the original notebooks for Trenches A, C-D and F-J are missing. Records for all trenches excepting C, D and J were handed over to the SCA in April 1997 (GML 1997) and were held at the Visitors' Centre until 2000 when they were relocated to the Merchants' House. The records for Areas C, D, J were delivered to SCA in mid-1997 (M. Carney, pers. comm., Nov 2001) and stored at Howard O'Farrell (it is unknown whether they were transferred to the Visitors' Centre at a later date). All records stored at the Merchants' House were transferred to the SHFA headquarters at Foreshore House by the Project Archaeologist in October 2001.

A copy of the notebook for Trenches C, D and J, duplicated before hand-over of the records, was generously provided to the EAMC team by Martin Carney in March 2003.

<sup>18</sup> It was discovered in early 2003 that the series of context sheets for Trench A is incomplete. Copies of some of the context sheets for Trenches C, D and J may be retained by excavator Martin Carney. (M. Carney, pers. comm., March 2003)

While the loss of the majority of trench journals and context sheets from Areas C, D and J is alarming and cannot be overlooked, owing to the detail, synthesis and clarity of the trench reports, the impact that the absence of trench journals and some context sheets will have on the EAMC research is limited.

### 3.2.2 ARTEFACT RECORDING AND REPORTING

The post-excavation project was similarly well recorded and reported. Original data-entry records for all artefact classes were prepared and have been retained. They are currently bundled by Type Series Name, in boxes, bags or envelopes.

The artefact reports were prepared by the specialists who undertook and oversaw the cataloguing of each artefact group. The reports were comprehensive, interpretive as well as descriptive and provided statements of methodology and meaningful discussion of artefact groups. All reports included clear definitions of artefact descriptions and importantly, a Type Series listing. The Glass Report, for example, explains the manner in which the colour, size, shape, technology and function of glass artefacts, and how the glass Type Series, was determined (Carney 1999: 20–23).

With the research essay and identification of future research opportunities, this suite of reports are arguably the most substantial reporting of artefact assemblages undertaken by consultants in Australian historical archaeology.

## 4.0 ARTEFACT AND ASSEMBLAGE ANALYSIS

The analysis of artefacts recovered from the Cumberland and Gloucester Streets site was undertaken within its artefact-class categories: glass, building materials, ceramics, metal, miscellaneous, leather, animal bone and shell, coins, soil, parasites and macro-botanical remains and palynology (see GML 1999: Volume 4i and 4ii). After the identification of individual artefacts during the cataloguing process, analysis of some components of each artefact-class assemblage was undertaken by each specialist as part of the 'Research Essay' contained in most reports (eg Section 5.0 in reports by Carney, Wilson, Barnes, Holmes, Iacono and Steele in GML 1999: Volumes 4i and 4ii). These Essays examined the manufacture and use—and the implications of both—for each artefact class at a general level, and in relation to the major phases of the Cumberland and Gloucester Streets site. Some specialists directly responded to the site research questions (eg Carney 1999: 109–116, Bower 1999: 129–130, Steele 1999: 227–229).

Most specialists acknowledged that their content was preliminary, rather than the 'final word' (Wilson 1999b: 208, Iacono 1999b: 37)—although (as noted in 3.2.2 above) it is noteworthy that their research was far more advanced than other projects also declared 'preliminary' (for example, see Anutech 1987).

These reports became an intermediary between the artefact catalogue and the 'New Perspectives from The Rocks' outlined in the Main Volume by Karskens. There was no assemblage-based cross-artefact analysis. Rather, Karskens integrated the findings of each artefact-specialist and trench supervisor in a discursive, narrative form, within the context of the historical framework of the site (Karskens 2000: 43; see further discussion below in Section 5.0). Penelope Allison has criticised this approach for the evident lack 'of any detailed quantitative and specific contextualised analyses of this material' in the 'reports' (Allison 1998: 16).

While such 'quantitative analyses' are not readily apparent from a quick glance at Volumes 2 and 4, a closer reading reveals that 'specific contextualised analyses' were undertaken—yet were presented in a discursive rather than tabulated form. For example, Section 7.0 of Kate Holmes' Metal Report which provided a brief

discussion of metal artefacts from selected deposits, including paint-can fragments from the cesspit of 126 Cumberland Street where professional (house-) painter Patrick Doyle lived from 1866 to 1879 (Holmes 1999b: 446). Other context-specific and often quantitative discussions can be found in the Research Essays by Iacono (for example the concentration of studs and solitaires in 1 Carahers Lane, 1999: 56–57), Steele (for example, the concentration of horn-cores in 5 Carahers Lane, 1999: 218) and Carney (for example the discussion of glass from Cribb’s well). Karskens also picked up, and further explored, some of these analyses in the Main Report (for example, see discussion of the assemblage from 1 Carahers Lane in Karskens 1999b: 143).

Despite these specific-artefact and specific-context analyses, the assemblage is yet to be subjected to rigorous, cross-class analysis, across the whole assemblage—an issue identified by some specialists as Future Research Opportunities (Carney 1999b: 81, Wilson 1999b: 310). At the time of preparing the reports, it was impossible for the specialists to undertake this scale of analysis, because the artefact database was not accessible at the time (Iacono 1999: 37). Without such analyses, alternative interpretations of the nature of some deposits were never identified by the project team. For example, that the deposits recovered from within the floor space of 5 Carahers Lane is primarily the result of the laying of a drain under the house, rather than the occupation of the dwelling (Crook 1999: Appendix 2). In the field, the deposit displayed all the typical characteristics of an underfloor, occupation deposit—humic, containing small items that easily slip through the floorboards—and was only suspected, then proven, to be otherwise when comprehensive, across-class artefact analysis commenced.

In summary, the analysis that has been undertaken on artefacts recovered from the Cumberland and Gloucester Streets site may be considered artefact-based rather than assemblage-based. It has been undertaken within artefact classes, within selected contexts and without the aid of the database. The availability of the database to the EAMC team, will allow larger-scale, inter-class, and inter- as well as intra-context, analysis of this extensive assemblage.

## 5.0 INTERPRETATIONS OF THE CUMBERLAND AND GLOUCESTER STREETS SITE

The commitment of the project team and site owner to comprehensive, integrative interpretation of the Cumberland and Gloucester Streets site—as set out in the Archaeological Assessment and Research Design prepared prior to excavation (Godden Mackay 1994: 3)—produced a suite of reports, books, articles and on-site interpretation more substantial, diverse and far richer than the interpretative measures offered for any other archaeological investigation in Sydney. The contribution of the project was recognised by a National Trust EnergyAustralia Heritage Award in the Publications Category to GML and Karskens in 2000 (GML 2000).

These manifold interpretations cannot be discussed in this report in great detail, and the following discussion will address the primary conclusions of the major, documented resources: the reports (GML and Karskens 1999b), Karskens’ *Inside The Rocks* and other articles. These include interpretations arising from the analysis of artefact-class assemblages (ie the artefact-specialist reports); and, to a greater extent, those arising from the integration of historical resources and interpretation with the above analysis and interpretation (ie the Main Volume, Karskens 1999b; Karskens 1999a, 1999c, 2001, forthcoming).

From the outset, the excavation was intended to be a pilot study in the integration of history and archaeology to advance the understanding of the site, its people and their social and physical environments. The findings of the project team contested traditional perspectives of life in The Rocks, by shifting the focus of convict life from the ball-and-chain accounts of punishment and government administration to the 'comfortable' domestic and consumer lives of convicts; and by revealing the 'respectable' assemblages of working-class people living in dwellings condemned as 'rookeries' and 'slums' at the beginning of the century.

In addition, there was comment and further elaboration of our understanding of the impact of the industrial revolution, the rise of governance and the lives of Rocks women. These observations covered the small and large scale, moving from 'tales' of bigamist butcher George Cribb's second wife Fanny throwing precious china down the well before George's first wife Mary arrived in the colony (Karskens 1999a: 135–138), to a lengthy essay on the nature of working people's culture as informed by the historical-archaeological investigation (Karskens 1999a: 159–184). The discussion also covered the history of European occupation at the site, until the turn of the 20th century—unlike some sites excavated in the 1980s which focussed exclusively on the early, particularly convict, eras (eg Burritt et al 1981 or Anutech ed 1987).

The process for interpreting the rich resources of the site was driven by the research design, and the integration of history and archaeology. It was part of Karskens' role as Project Historian to integrate the findings of the artefact specialists with her historical research for the interpretative volume (the Main Volume)—'that is, to partly dismantle the boundaries between artefact categories, to see across them' (Karskens 2000: 43). The result was a synthesis of the 11 specialist reports (GML 1999: Volume 4i and 4ii, see more detailed discussion in Section 4.0 above), nine trench reports (GML: Volume 3) and 13 years of Karskens' historical research (Karskens 1986, Karskens 1994).

In the process, however, some of the particular interpretations of individual artefacts developed by artefact specialists were slightly altered for the main volume. For example, Wilson's discussion of a porcelain sherd that 'may have been reworked' and would require additional examination before determining whether it had been re-worked by Aboriginal people was discussed in the Main Report and elsewhere as having been 'worked by Aboriginal hands' (Karskens 1999b: 73; Karskens 1999a: 26).

In summary, interpretations of the archaeological site and collection have been either at the site-wide (and neighbourhood-wide) scale, or are particularistic, single-artefact tales. There has been lesser emphasis on the composition of households and the complex patterning of assemblages, which is revealed through comprehensive database-driven analysis. This is a likely result of the lack of cross-artefact assemblage analysis as discussed in Section 4.0 above and perhaps may be a casualty of directing so much energy toward overcoming the historical-archaeological divide.<sup>19</sup>

The approach of the team is not problematic but rather allows for further layers of research and understanding. While the more detailed and particular artefact-family stories are less likely to be altered, it will be interesting to see whether rigorous assemblage-based analysis challenges the big-picture outcomes

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<sup>19</sup> It is noteworthy that none of the artefact specialists or excavators has published articles on the various assemblages or substantial surviving foundations. All publications to date have been focussed on the 'new perspectives' of The Rocks and the methodology of integrating history and archaeology (see Mackay 1996; Karskens 1997, 2000, 2001, forthcoming; Mackay & Karskens 1999).

of the project—that convicts consumed, that ‘slums’ are myths. It is likely that these overall conclusions will remain unchanged—just some of the detail may be better understood—and new avenues will be discovered, and new stories will be told.

## 5.1 HISTORICAL INTERPRETATION

### 5.1.1 THE ROCKS GENERALLY

Karskens’ historical research and writing on the Cumberland and Gloucester Streets site for the GML between 1994 and 2001 was part of a wider, more long-term project, first envisaged in the mid-1980s. According to Karskens, her interest in The Rocks area was piqued with a commission to undertake the history of the Cumberland and Gloucester Streets site in 1986. In 1994, when the Cumberland and Gloucester Streets site was being excavated, Karskens was midway through writing a PhD on the history of The Rocks from European settlement until the 1830s, titled ‘The Rocks and Sydney: Society, Material Life and Culture’, which was later published as *The Rocks: Life in Early Sydney* in 1997. As Karskens noted in the acknowledgements to her newly published book, no other scholarly studies had been produced about The Rocks previously, despite the considerable attention paid to this historic part of Sydney<sup>20</sup>, considered by many as the ‘birthplace of the nation’ (Karskens 1997: xiii).

### 5.1.2 CUMBERLAND AND GLOUCESTER STREETS SITE

The Cumberland and Gloucester Streets site was first researched and written about in detail in 1986 by Karskens, who was commissioned for a Conservation Analysis prepared by the NSW Public Works Department (PWD). Karskens’ historical outline presented a general history of the site, covering each phase of its occupation and use from 1788 until 1986. The phases were identified as follows:

- Phase 1: Early Development 1788–c1820
- Phase 2: Consolidation c1820–1850
- Phase 3: Intensive Occupancy c1850–1870
- Phase 4: Boom and Depression c1880–1900
- Phase 5: Plague, Demolition and Reconstruction 1900–1920
- Phase 6: Disintegration 1920–1986

According to Karskens, the historical outline was:

...intended to give a broad indication of the breadth and depth of this site’s history and significance, and to give preliminary directions and further research and survey necessary to fully understand it. It is based on some of the most obvious and accessible sources, including Rate Books, the 1901 series of photographs and measured drawings, maps, pictures and reminiscences. There are many more sources, which would expand and deepen this brief overview. (Karskens 1986: 2)

In other words, this historical outline was considered to be the springboard for more detailed research and analysis.

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<sup>20</sup> Including numerous historical publications produced about The Rocks from the mid-1960s onwards, largely authored by ‘amateur historians’, as well as photographic studies and tourist guides.

In 1989, Terry Kass and Edward Higginbotham were commissioned to prepare a historical and archaeological analysis of Site C7/C8 for the purpose of an Environmental Impact Statement. The historical component of this report comprised detailed historical research undertaken by Kass, based 'on the owners and occupiers of each allotment, in addition to the structural and land use', in order to 'assess the archaeological potential of the site' (Kass & Higginbotham 1989: 1). Kass used a variety of sources to determine the occupants and owners on the site, including Land Titles, Rate Books and Sands post office directories. The presentation of this research is distinct from the earlier descriptive history produced by Karskens in 1986. In the Kass report, historical information about those who owned or occupied each of the 21 allotments on Site C7/C8 between the c1820s and c1850s was presented in chronological order, with no attempt at interpretation or synthesis.

According to Higginbotham, the historical research focussed on the period from 1788 to 1850 'because it is sites of this date range that are likely to have the highest archaeological potential' (Higginbotham 1989: 3). However, Kass only researched a thirty-year period in detail: no information was provided about the occupation of the site from 1788 to the 1820s. It appears that the period prior to the 1820s was not addressed in detail owing to time and budget constraints, as well as a perceived lack of available information or rather, 'gaps in the documentary record'. According to Kass, 'the actual sequence of ownership of many parcels of land in Sydney (at this time), is often obscure and complex, with many gaps.' (Kass 1989: 4).

Five years later, in 1994, Karskens was appointed Project Historian on the archaeological investigation of the vacant block known as the Cumberland and Gloucester Streets site, to be carried out by Godden Mackay Heritage Consultants. In April that year, Karskens produced a detailed, contextual history of the site prior to excavation, which was included in the Archaeological Investigation and Research Design (GM 1994). This history drew upon the Kass report as well as Karskens' own work: her 1986 report on the site and the extensive archival research carried out for her post-doctoral studies. As Karskens notes, the history produced at this time was not presented as 'a list of "facts"', but as a narrative history of the site within the context of The Rocks and Sydney generally' (GML 1999: 58). One month later, a 'Historical Discourse'<sup>21</sup> about the Cumberland and Gloucester Streets site was produced, which expanded on the earlier report, and also:

...contained an interlude which dealt with cultural identities and the cultural context for historical archaeology, drawn from the historical narrative and broader historiography, and forming the background to the five major interrelated questions presented as the main aims of the research design. (GML 1999: 58).

Karskens prepared the Main Report for the Archaeological Interpretation Report in 1996, titled *New Perspectives From The Rocks*, which was published three years later by GML (Karskens 1999b). In 1999, the Main Report was revised for a book published by Hale & Iremonger, re-titled as: *Inside The Rocks: The Archaeology of a Neighbourhood* (Karskens 1999a).

In Section 1.0 of the Main Report titled 'Making Places: People on the Cumberland/Gloucester Streets site' (and to a lesser degree, in the first chapter of *Inside The Rocks*), phasing was again used to understand the

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<sup>21</sup> This historical discourse later appeared as part of SCA's Environmental Impact Statement in 1998 (SCA 1988). The Archaeological Assessment and Research Design, which included the five research questions (GM 1994: 6-7), submitted to the Heritage Council in April 1994, incorporated a summary derived by Karskens from the Historical Discourse (GM 1994: 5, 10ff).

chronology of the site, although with less attention paid to its 20th-century history (Karskens 1999b: 73–97).

The phases were identified as follows:

- Phase 1: Before and After 1788
- Phase 2: Early European Occupation and Consolidation c1790–1830
- Phase 3: Transition: Capitalists and Mariners, Landlords and Tenants c1830–1860
- Phase 4: Boom and Depression 1860–1900
- Phase 5: Plague, Demolition and Reconstruction 1900–1994

However, the broad aim of Karskens' published work was to integrate the archaeological findings from the Cumberland and Gloucester Streets site with historical research, in order to come to a richer understanding of the site in particular, and the working-class neighbourhood of The Rocks more generally. For example, *Inside The Rocks* is a thematic, discursive narrative account of the Cumberland and Gloucester Streets site, driven by need to appeal to a general audience. Sources other than written records, such as genealogical research and oral history, were used to uncover aspects of the past usually absent from the written record, to uncover the hidden lives of the working class people who lived there. Both accounts of the Cumberland and Gloucester Streets site produced in 1999 document the residential occupation of the site from European settlement in the early 1800s to the turn of 19th century, with limited attention paid to the pre-European settlement period and the 20th-century history of the site.

### *Research Questions*

The history and archaeology of the site were integrated using research questions developed by Karskens and Godden Mackay in 1994, prior to the commencement of archaeological excavations. Karskens' publications were based around themes that responded to the five main research questions, developed as part of the research design for understanding the site. These research questions, detailed below, were intended to guide research—both historical and archaeological—rather than limit it (GML 1999: 58–60):

1. The impact of the industrial revolution and the rise of class
2. What can the site tell us about women's occupations and lives?
3. Can the site make a contribution to the debate on standards of living in urban areas where working people lived?
4. Was The Rocks a separate space, in a social/cultural sense, in the larger city?
5. The rise of governance: What was the nature of the relationship between people and government? How did it change over the historical period?

## **5.2 HISTORICAL RESEARCH**

As noted, considerable historical research was undertaken for the purpose of interpreting the archaeological evidence excavated at the Cumberland and Gloucester Streets site. While substantial historical research was archival, using records from the State Archives, Mitchell Library and other repositories, sources used in interpretation of the Cumberland and Gloucester Streets site were not solely 'paper-based'.

### 5.2.1 CORRESPONDENCE

As the project received wide publicity, both the SCA and Karskens received considerable correspondence and enquiries from interested members of the public, some of whom were related to former residents at the Cumberland and Gloucester Streets site. The SCA has maintained two correspondence files, containing these letters, since the early 1990s.<sup>22</sup> (GML 1999: 65). Other correspondence is in the possession of Grace Karskens.

### 5.2.2 ORAL HISTORY

The SCA undertook around 20 oral history interviews with local residents, or former residents of The Rocks, between 1985 and 1992. Some of these interviews were with people who had lived on the Cumberland and Gloucester Streets site.<sup>23</sup> Karskens also undertook around 30 oral history interviews during the course of her research in The Rocks.

### 5.2.3 GENEALOGY

Genealogical research was important for understanding the Cumberland and Gloucester Streets site, with the significant contributions made by Val Garner and Merle Gibson among others, who 'supplied photographs, artefacts and anecdotes about their ancestors'. The extensive genealogical research carried out by Garner in particular, was important for understanding the material culture of the site, as well as 'reflecting the patterns of occupation and settlement of Rocks people'. (PHA 2000: 195).

### 5.2.4 DRAWINGS

CAD three-dimensional reconstructions of the Cumberland and Gloucester Streets site, prepared by SHFA after the excavations were completed, show the different stages of occupation of the site, from 1788 to the early-20th century. Some of these drawings were reproduced in the publication *Inside The Rocks*.

## 5.3 PUBLIC INTERPRETATION

In 1996, the SCA installed an exhibition on the second and third levels of the Sydney Visitor's Centre in the old Sailor's Home on George Street. This exhibition, little altered since its installation, presented a thematic history of The Rocks, and was intended to showcase the SCA's vast and rich archaeological collections unearthed in this area. The majority of the artefacts on display are from the Lilyvale and Cumberland and Gloucester Streets sites, excavated by the SCA in 1989 and 1994 respectively.

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<sup>22</sup> SCA Files: Architecture - Rocks History - Public Enquiries REI362.01.01 & REI362.01.02

<sup>23</sup> These oral history interviews have been deposited with the State Library of NSW. Duplicates are located at Foreshore House, as are some of the transcripts.

## Appendix Two:

# SAMPLING THE ACCURACY AND UTILITY OF THE ARTEFACT CATALOGUE

## 1.0 HISTORY OF THE ARTEFACT ASSEMBLAGE AND CATALOGUES

The Cumberland and Gloucester Streets site assemblage was excavated by Godden Mackay Heritage Consultants (now Godden Mackay Logan; 'GML') for the Sydney Cove Authority (now Sydney Harbour Foreshore Authority; 'SHFA') between April and October 1994. The same team of excavators also undertook the post-excavation analysis, between November 1994 and September 1995 and March to May 1996. The specialists included:

Martin Carney:	<i>Glass &amp; bottle stoppers</i>
Kevin Barnes:	<i>Building Materials</i>
Graham Wilson:	<i>Ceramics &amp; tobacco pipes</i>
Kate Holmes:	<i>Metal</i>
Nadia Iacono:	<i>Miscellaneous</i>
Rebecca Bower:	<i>Leather</i>
Dominic Steele:	<i>Animal bone &amp; shell</i>
Wayne Johnson:	<i>Coins, medals &amp; tokens</i>
Roy Lawrie:	<i>Soil samples</i>
Claire Everett:	<i>Parasites &amp; macrobotanics</i>
Mike McPhail:	<i>Palynology</i>

The data-entry took 18 months and was undertaken by Patrick Grant. The catalogue was entered into DBase IV (Version 2.0), in the SHFA's cataloguing system with some improvements and amendments; hence the field comparison in Table 4 below is virtually identical (GML 1999: Volume 6; see also Snelgrove 1990). The database has since been converted to Microsoft Access and was re-configured in 1999 by Penny Crook for honours research to incorporate detailed stratigraphic and type-series information. It is this version of the database that has been utilised in the EAMC project.

## 2.0 TERMINOLOGY

The following discussion includes the use of some database terminology. For this reason, the following distinctions between the collection, catalogue and database and some additional definitions have been provided.

**Table 4** Fields used to compile the Cumberland and Gloucester Streets site catalogue and those required for the EAMC database. (**Bold** = crucial or important to EAMC analysis)

<b>CuGI Database</b>	<b>EAMC database</b>	<b>CuGI Database</b>	<b>EAMC database</b>
Site	Site		Image Caption
ID number	ID number	Conservation	Conservation
Unit	Unit	Box Number	Box Number
Unit Area (square)	Unit Area (square)		Date entered
Phase A (Phase From)	Phase A (Phase From)		Entered by
Phase B (Phase To)	Phase B (Phase To)		Date updated
Artefact class	Artefact class		Updated by
<b>TS Name</b>	<b>TS Name</b>		EAMC Notes
<b>TS No</b>	<b>TS No</b>		EAMC Checked
<b>TS Details</b>	<b>TS Details</b>	<i>Species name</i>	<i>Species name*</i>
Activity	Activity	<i>Skeletal element</i>	<i>Skeletal element</i>
Function	Function	<i>No. complete bones</i>	<i>No. complete bones</i>
Subfunction	Subfunction	<i>No. bone fragments</i>	<i>No. bone fragments</i>
Material	Material	<i>Portion of bone</i>	<i>Portion of bone</i>
Mineral	Mineral	<i>Percentage of bone portion</i>	<i>Percentage of bone portion</i>
<b>Portion</b>	<b>Portion</b>	<i>Condition of bone</i>	<i>Condition of bone</i>
<b>Form</b>	<b>Form</b>	<i>Condition description</i>	<i>Condition description</i>
<b>Shape</b>	<b>Shape</b>	<i>Condition assessment</i>	<i>Condition assessment</i>
<b>Technique of Manuf.</b>	<b>Technique of Manuf.</b>	<i>Attribute type</i>	<i>Attribute type</i>
Modifications	Modifications	<i>Attribute location</i>	<i>Attribute location</i>
Decoration	Decoration	<i>Attribute assessment</i>	<i>Attribute assessment</i>
Pattern	Pattern	<i>Ageing location</i>	<i>Ageing location</i>
Colour	Colour	<i>Ageing state</i>	<i>Ageing state</i>
Tile strike	Tile strike	<i>Tooth name</i>	<i>Tooth name</i>
Date one	Date one	<i>Tooth condition</i>	<i>Tooth condition</i>
Date two	Date two	<i>Butchery location</i>	<i>Butchery location</i>
Date notes	Date notes	<i>Butchery type</i>	<i>Butchery type</i>
Quantity	Quantity	<i>Butchery orientation</i>	<i>Butchery orientation</i>
<b>Percentage</b>	<b>Percentage</b>	<i>Animal size</i>	<i>Animal size</i>
<b>Integrity</b>	<b>Integrity</b>	<i>Animal max size</i>	<i>Animal max size</i>
	<b>Minimum Vessel ID No.</b>	<i>Seed</i>	<i>Seed</i>
	<b>MV Notes</b>	<i>Organic</i>	<i>Organic</i>
<b>Conjoin ID Number</b>	<b>Conjoin ID Number</b>	<i>Shell scientific name</i>	<i>Shell scientific name</i>
Weight (g)	Weight (g)	<i>Shell common name</i>	<i>Shell common name</i>
Length in mm	Length in mm	<i>Shell no. complete</i>	<i>Shell no. complete</i>
Width in mm	Width in mm	<i>Shell no. fragments</i>	<i>Shell no. fragments</i>
Thick in mm	Thick in mm	<i>Shell no. lids</i>	<i>Shell no. lids</i>
ID marks (transcript type)	ID marks (transcript type)	<i>Shell no. bases</i>	<i>Shell no. bases</i>
Transcript	Transcript	<i>Shell condition</i>	<i>Shell condition</i>
Provenance	Provenance		
Notes	Notes		
	Image File		

\* The italicised fields are those required for detailed analysis of bone and shell artefacts. While these will not be assessed as part of the EAMC project, the fields will remain in the EAMC database for future research.

The **collection** or **assemblage** is comprised of the artefacts excavated from the Cumberland and Gloucester Streets site, presently stored in their boxes. The **catalogue** is the paper and electronic record of what is in the boxes. The **database** is a tool for presenting, searching and electronically storing the catalogue. Each catalogued bag of artefacts has been allocated a unique **Artefact Identification Number** (eg CUGL62029). Information pertaining to this bag is stored in a single **record** in the database (ie the record for CUGL62029). Each record is composed of a number of **fields**, which comprise the catalogue entry for that item, for example, 'Function', 'Type Name' and 'Quantity'. When referring specifically to a field name or its contents the name is shown as a proper noun, as is any reference to the categorisation of an artefact into the developed Type Series, as opposed to its 'type'.

### 3.0 SAMPLE SIZE AND ASSESSMENT METHODS

In total, 1,298 artefact records (ie one or more artefacts grouped in one bag) were examined in the sample. The sample represents 1.9% of bags in the collection as a whole and 3.0% excluding bone, shell, soil and building materials. (See Table 5.)

The sample was derived by randomly selecting boxes. Every thirty-fifth box was selected from a database list until a selection representing 3% of the assemblage's artefacts was reached. The listed boxes which did not contain edible bone, shell, soil and organic material were retrieved from the Howard O'Farrell store and brought to the SHFA head offices for physical inspection.

Once the inspection was underway, it was noted that none of the selected boxes contained a sufficient sample of 'miscellaneous' artefacts. An additional two boxes—selected on the basis of the number of bags they contained—were then retrieved and examined.

Only some building materials (93 bags of nails) were inspected and no edible bone, shell or unmodified organic material was examined. Unmodified bone and shell artefacts and soil samples will not be analysed in the EAMC project and building materials will receive less attention than other artefact classes, hence little or no time was invested in their review.

The artefacts were inspected box by box, and each artefact was examined for its appropriate correspondence with the records contained in the artefact database. A copy of the database prepared by GML was provided to, and modified by, the Project Archaeologist in 1999.

Where anomalies between the artefacts and their database record were discovered, they were noted in an additional database field entitled 'EAMC Notes'. Where information such as an inscription was omitted in the original data, this information was entered into the appropriate field and the change noted in the EAMC notes field. Missing or duplicated records were re-created or re-numbered but no other changes have been made to the original fields at this stage.

The re-examination was undertaken between 10 August and 4 September, 2001.

After the physical inspection of artefacts was completed, the data-entry records were gathered from the Merchants' House and returned to Foreshore House. These were used to verify whether some errors were data-entry, rather than cataloguing, errors or oversights.

**Table 5** Number of bags and estimated fragments sampled in the Cumberland and Gloucester Streets site artefact assemblage.

	TOTAL ASSEMBLAGE		SAMPLE	
	Bags	Est. Frags	Bags	Est. Frags
<i>Assemblage excluding edible bone, shell, soil &amp; bldg materials</i>	40,575	168,707	1,205 (3.0%)	5,422 (3.2%)
<i>Edible bone, shell, soil &amp; bldg materials</i>	28,822	204,988	93 (0.3%)	346 (0.2%)
<b>Total</b>	<b>69,398</b>	<b>373,695</b>	<b>1,298 (1.9%)</b>	<b>5,768 (1.5%)</b>

## 4.0 DISCUSSION OF ISSUES

### 4.1 NEEDS OF EAMC

The Exploring the Archaeology of the Modern City Project (EAMC) has been established to comprehensively analyse and interpret Sydney's major historical-archaeological collections. The project team will analyse all archaeological sites managed by the HHT within the Sydney CBD and two or three of the major sites managed by the Sydney Harbour Foreshore Authority. Altogether, the artefacts from these sites are estimated to comprise over one million in number.

Given the scale of the project, the analysis process needs to be as efficient as possible. This is why the bulk of the analytical work on the artefacts will be undertaken on a computer database. The accuracy and fullness of the information about function, colour, portion, form, quantity and diagnostic features in the database is critical to the database's effective utility in the analytical process.

The basis of meaningful artefact analysis and interpretation is the development of minimum vessel counts. A minimum vessel count is the minimum number of pipes, teacups or glass bottles, for example, in an archaeological context or entire collection, rather than the number of ceramic or glass fragments into which the objects shattered. Minimum vessel counts are calculated by selecting the highest number of diagnostic portion-parts in one artefact type. For example, if there are several hundred plain pipe stems, 20 mouthpieces and 70 fragments of pipe bowls, there must have been *at least* 20 whole pipes.

Unfortunately, the calculation of minimum numbers of vessels is not standard practice in Australian historical archaeology, and has not been undertaken for the sites under study. The project team will undertake such counts, but can only do so with confidence if the database is comprehensive and accurate.

Another excellent tool for efficient artefact analysis is a fully catalogued Type Series. This provides an easy mechanism for searching and grouping all bottles, tablewares and pen nibs, for example, of the same specific style or product and quickly sorts the diagnostic artefacts from non-diagnostic ones, to produce a meaningful result. Pen nib Type 10, for example, may include all nibs stamped 'ECKERSTEIN'S BANK PEN', distinguishable from 'ECKERSTEIN'S CLERK PEN', or other bank pens.

In summary, the key needs of the EAMC team in regard to artefact databases provided to the project are:

- comprehensive records that provide information relevant to minimum vessels counts: quantity, portion and integrity;
- accurate and reliable records; and
- a well developed type series that is recorded in the database.

The Cumberland and Gloucester Streets site database does provide the above requirements for most records, although there are particular fields or groups of records that do not. These limitations and other issues affecting the catalogue and collection are discussed below.

## 4.2 THE ARTEFACT CATALOGUE OF THE CUMBERLAND AND GLOUCESTER STREETS SITE

The Cumberland and Gloucester Streets site database contains one of the most detailed catalogues of sites included in the EAMC project. Owing to this comprehensive recording, the field list of the Cumberland and Gloucester Streets site database became the basis of the EAMC's database. (It is for this reason, that the field lists shown in Table 4 are virtually parallel.)

Within this catalogue framework, the vast majority of records (973) are considered 'Satisfactory' and 601 of these are considered exceptionally detailed records. Overall, the records for glass, miscellaneous and ceramic—despite some significant confusion over portion details—are more comprehensive than those contained in any other database reviewed by the EAMC so far.

Approximately 25% of the sampled records contained errors ranging from minor to major and including the 'bulk bags' discussed in Section 4.2.1 (see Table 6). Significant errors or omissions include all ceramics records for which the portion was mis-recorded, the inscription was omitted or the colour of decoration incorrect. Any record that had erroneous, omitted or questionable information regarding the function or subfunction of the vessel, was recorded as having a significant error. Minor errors include recording 10 instead of 11 fragments, or significantly mis-recording the number of single-element fragments (ie conjoined sherds in the one bag), which does not affect minimum vessel count.

The five major errors are the duplicated or omitted records described in Section 4.2.2. These are considered major because there is no means of identifying that the database records are missing without a thorough audit of every bag in every box or every data-entry sheet.

### 4.2.1 BULK CATALOGUING

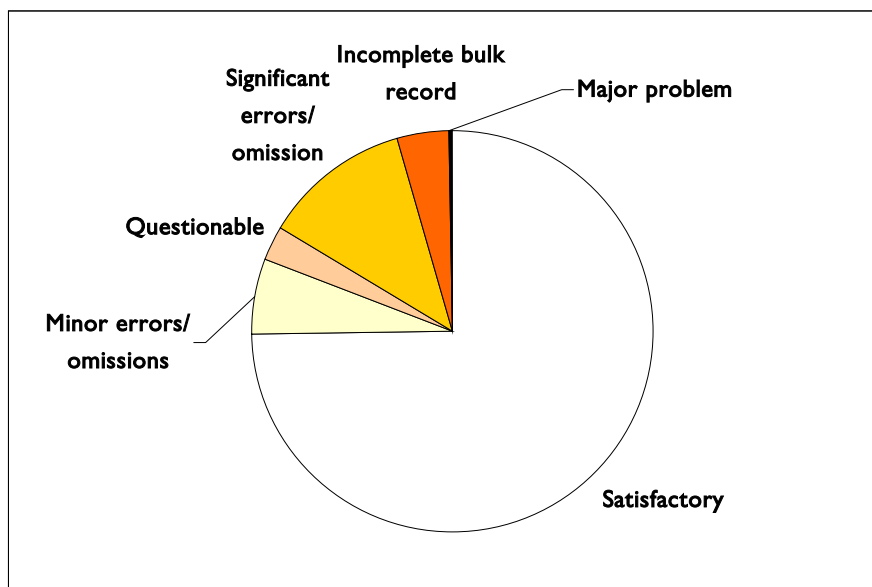
Fifty-three records in the sample contained 'bulk bags' of artefacts. The 'bulked bags' are the result of prioritising artefacts based on the integrity and research-potential of the context from which they came—a necessary measure given the colossal artefact-analysis project that the team faced. This was a process agreed to, and developed in collaboration with SCA, to ensure that specialists could give priority to contexts of greatest interest.

The contexts were ranked by importance on the following scale (GML 1999 vol 4i: 10):

- 1) critical to the understanding of the development of the site or answering the research questions;
- 2) will contribute significantly to the understanding of the history of the site or that answer specific chronological stratigraphic questions;

**Table 6** Accuracy of records in the sample of the Cumberland and Gloucester Streets site catalogue and a projection of the number of records likely in the assemblage as a whole.<sup>24</sup>

Assessment of Record	Nº Records	Projected Nº Records
Satisfactory	973 (74.6%)	51,782
Minor errors or omissions	82 (6.3%)	4,364
Questionable	36 (2.8%)	1,916
Significant errors or omissions	154 (11.8%)	8,196
Incomplete bulk record	54 (4.1%)	2,874
Major problem	5 (0.4%)	266
<b>Total</b>	<b>1,304</b>	<b>69,398</b>



- 3) unlikely to provide information related to the site or to specific questions;
- 4) created during filling and levelling operations using material from the site; and
- 5) structural units.

The level of artefact analysis was contingent on this priority listing (GML 1999 vol 4i: 11). Artefacts recovered from contexts considered to be of lesser priority were bulk bagged rather than sorted and recorded in detail.

Each trench report lists the relative significance of each context either in the Context List, or as a stand-alone section on the report.<sup>25</sup>

<sup>24</sup> This assessment is based on whether the individual records are adequately representative of 'what's in the box', within the parameters of the database's information structure and the needs of the EAMC project as outlined in Section 4.1.

<sup>25</sup> Wilson's report on Area A provides a discussion of the relative significance of contexts using a different scale: high, medium and

With regard to the sample, the bulk bags are readily identifiable in the database by the Type Series names 'Ceramic bulk' and 'Glass - various\*' and their Type Details: 'B'. They contained a variety of diagnostic and more common fragments of glass and ceramic, for example tumbler bases, wine stems and decorative glass bowls among window glass and bottle sherds (CUGL04951, CUGL04955, CUGL04960). Among the ceramic bulk bags, large portions of teacups, stoneware bottles and jugs were bagged with unidentifiable fragments of Willow-ware, gilt-edge whitewares and purple transfer-printed wares (CUGL38548, CUGL38887 and CUGL38905 among others).

Across the database as a whole, 4,687 bags (containing well over 48,993 fragments) were recorded as having 'B' priority type-series. These bags came from 682 units, not all of which were rated a low priority in the trench reports. For example, 20 bags from five contexts ranked Priority 1 from 93 Gloucester Street are typed 'B'. Two of the contexts are occupation deposits from the middle and east rooms of 93 Gloucester Street, another two were infill or surface-clean contexts associated with those deposits and another was related to a sandstone footing.

Across the collection as a whole, 318 bags from Priority 1 contexts and 659 bags from Priority 2 were recorded in bulk (see Table 7).

Importantly, these bulk bags in higher-priority contexts comprise a small proportion of the material from these contexts: for the nine bulk bags in F019 there are 888 bags sorted and recorded in detail and there are 50 detailed records for the one bulk bag in F023.

Nonetheless, it is of concern that artefacts from significant contexts have been inconsistently recorded and it is unclear how these 'Priority 1' contexts were bulk bagged.

**Table 7** Number of bags of bulk catalogued material in contexts ranked from 1 to 5.

Arteclass	1	2	3	4	5	Not specified in report
Bone	2	3	217	91	37	78
Building materials	280	185	404	292	18	180
Ceramics	1	146	259	154	30	639
Glass	19	218	191	93	34	82
Metal	4	4	153	82	25	59
Mineral	0	0	0	0	0	0
Misc/Var	7	100	147	71	30	76
Organic	1	0	3	0	0	0
Shell	3	1	146	56	12	52
	<b>318</b>	<b>659</b>	<b>1523</b>	<b>843</b>	<b>191</b>	<b>1166</b>
<i>Total no. bags</i>	<i>42032</i>	<i>7155</i>	<i>4914</i>	<i>2092</i>	<i>801</i>	<i>12404</i>
<i>Total no. contexts</i>	<i>816</i>	<i>250</i>	<i>304</i>	<i>114</i>	<i>750</i>	<i>497</i>

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low. High being worthy of preservation or further investigation; medium not essential to the understanding of the site; and low being items obstructing more significant features.

### *Other mixed bags*

Fourteen bags containing various artefacts of similar pattern, function and/or portion were examined during the sample. Bag CUGL40956, for example, contained a mix of bases of floral, scenic and geometric patterns and CUGL69184 has handles, bases, rims and body sherds of miscellaneous transfer-printed earthenware sherds.

These 'mixed bags' are similar to the bulk bags, but more information has been recorded and they are not so clearly identified in the database with 'B' in TS Details field, for example. In some of the mixed bags, the partial completion of their records is misleading. Many recorded as 'unidentifiable' contained fragments that displayed some characteristics of particular functions and should have been bagged and recorded independently. For example, one Willow-ware fragment from CUGL26427 recorded as having an 'Unidentified' function was identifiable as a platter and two other base fragments were clearly small plates.

In other cases, some fields, such as portion, were more appropriately recorded as 'various'.

Many of these 'mixed bags' were attributed a general type-series groups such as 'Glass unid' or 'Transfer-printed Earthenware I', which is described as 'miscellaneous'.

These bags may require re-sorting.

#### **4.2.2 DATABASE ISSUES: MISSING RECORDS, DUPLICATE NUMBERS AND DATA-ENTRY ERRORS**

Three artefacts inspected during the sample had no corresponding record in the database (CUGL40977 and CUGL40978 from Box 241, and CUGL69057 from Box 378). This is a serious issue for a database-driven study such as that to be undertaken by the EAMC as these artefacts have been excluded from the data set without any capacity to verify their absence from the database alone. The only means of noting their absence is examining each artefact in every box, or every data-entry record, in cross reference with the database. That said, only three (0.2%) of 1,298 examined records were noted to be missing. In a database with 70,000-odd records, and considering the broad scale of analysis that the EAMC will undertake, any additional missing records will have a relatively minor impact overall. In the short-term, the EAMC team will investigate a quick means of verifying which numbers were used.

One duplicate number was identified in the sample. This was CUGL61919, which has been allocated to a hand-painted earthenware sherd from Context C030/C3 in Box 344 (in the sample) and a brown transfer-printed ware ceramic sherd from H002 in Box No. 46.

Records for other numbers identified as duplicates on the data-entry forms contained duplicated information. That is, the record for artefact bags CUGL36509 and CUGL36510 that contained gin/schnapps bottle sherds were recorded as beer/wine sherds in the database. The original data-entry records were checked, and these numbers were found on a Beer/Wine type-series page (No. 303) with a mark indicating that they are duplicates of numbers on Page 294 and a note indicating two new ID numbers: CUGL58795 and CUGL58796. The beer/wine data contained in the database records for CUGL36509 and CUGL36510 in fact apply to bags CUGL58795 and CUGL58796 and the actual data for CUGL36509 and CUGL36510 were lost.

Further, three beer/wine bottle sherds were found in a bag with no artefact ID number. The context number was marked on the bag, and a new record was created for the item (CUGL71459).

### *Erroneous Box Numbers*

Thirteen bags stored in the boxes sampled had been allocated to different box numbers in the database. That is, the records of bags said to be in Box 110 in the database were found in Box 1171. The artefacts comprised glass, jewellery and some doll parts.

Two other artefact bags (CUGL04007, CUGL04008 and CUGL03976) were noted to be missing in the database, but were both present in Box 36.

### *General data-entry errors*

Only four records (0.3%) in the sample were noted to contain data-entry errors. Glass fragment CUGL34272 was entered as having 31 sherds, instead of 81; the material of bone stud CUGL50853 was entered as glass; the colour of CUGL04062 was mis-entered as 'cobalt blue' rather than 'clear' and the portion of ceramic sherd CUGL61820 was entered as 'various' rather than 'body', as listed on the recording form.

These relatively infrequent errors, comprising 0.3% of the sample, are considered negligible.

## **4.2.4 ERRONEOUS PORTIONS**

One-hundred and twenty-two (22.5%) of the 543 ceramic artefacts identified in the sample (excluding clay tobacco pipes) contained an erroneous description of the sherd's portion.

There were 59 records where rim sherds were recorded as 'body', body sherds were recorded as 'rim' or, as in most of these cases, a combination of rim and body sherds were recorded mostly as 'body' or occasionally as 'rim'. There were 63 more serious cases in which bases or other highly-diagnostic portion-types such as handles or tureen rims (such as CUGL40962), were recorded as 'body' fragments. In the majority of instances, the base fragments were stored in a bag with other body and/or rim sherds, however nine bags recorded as being bases or base-body fragments were actually body and rim sherds.

These errors are not the result of data-entry mistakes, but may be a result of the spreadsheet-style, data-recording forms used. In all cases where the entry records for these portion errors were checked, the erroneous portion was a ditto repeat of the line above. Many pages comprised a column of portions with 'Body' at the top, followed by numerous dittos. Only one example recorded to have an error in the portion allocation was an example of its Type Series, and therefore recorded on separate, one-item-per-page form.

Regardless of the cause, this high rate of error is of serious concern, particularly with regard to the preparation of accurate minimum vessel counts and will require amendment prior to wide-scale analysis.

## **4.2.5 INSUFFICIENT OR OVERLOOKED INFORMATION**

For some records, additional information about the artefact or artefacts that could be reasonably expected within the context of the database was overlooked or omitted.

There were 17 bags in which the inscriptions or marks on ceramics sherds and some metal items were not noted. In ten of these cases, the marks were either inscrutable or fragmentary: for example the printed mark 'P...' in a wreath on sherd CUGL69102. In other cases, more significant or diagnostic information was overlooked: for example the '12' stamp on green 'Palestine'-pattern sherds included in the Adam's Type Series (Green transfer-printed earthenware 2) and parts of an impression which appears to be 'COPE...' on the base of two sherds from occupation deposits in 1 Carahers Lane (CUGL69070 and

CUGL69073). While the latter are not necessarily Copeland plates, these makers' impressions have the potential to be identified and should have been noted.

In other cases, there was insufficient description or notation of inscriptions that were identified during artefact processing. For example, that the Royal Arms mark on the base of plate or bowl sherd CUGL61920 is a pre-1837 mark or that the inscriptions on white earthenware sherds CUGL61921 and CUGL61922—'ROYAL IRONSTONE CHINA' above Royal Arms—are identical. Importantly in these latter cases, the artefacts were recovered from less significant contexts, perhaps explaining why less research was invested in them: CUGL61921 was recovered from mid-20th-century bus-depot fill and CUGL61922 from post-demolition fill in the yard of the King House (c1900–c1916).

In other cases, discretionary details such as patina were overlooked (eg CUGL36521 and CUGL36526)<sup>26</sup> or information usually recorded and vital to that particular artefact was not noted: for example, the substantial fragments of Gin/Schnapps bottles in CUGL34270 or the weight of the 82 beer/wine body sherds in bag CUGL34237.

Other minor examples included the failure to note hand-painting over transfer-printed earthenware sherds (CUGL61861).

### *Conjoins*

Only two additional sets of conjoined sherds were identified during the sampling process. One of these was a rather significant oversight: several large sherds from the occupation deposits of 1 Carahers Lane, which conjoined to form a small plate, depicting a European-style boating scene (CUGL69200, CUGL69226–CUGL69228) was found in four bags of 'Willow'-pattern blue transfer-printed sherds and blue, 'boating scene' sherds (Transfer-printed Earthenware Blue 77).

## **4.2.6 QUESTIONABLE AND AMBIGUOUS TERMS**

### *Functions and subfunctions*

In addition to the mixed bags that listed several identifiable sherds as 'unidentified' (discussed in Section 4.2.1), there were 84 bags—predominantly ceramic, with a few glass, comprising 6.4% of the sample as a whole—which included identifiable or diagnostic sherds recorded as 'unidentified'. These included a range of sherds that could be readily or tentatively identified as teacups or small bowls (eg CUGL61907 and CUGL26478), plates (eg CUGL61864), saucers (eg CUGL61931) and other vessels (eg CUGL69081, CUGL26481). In many cases, the sherds were very similar to other sherds which were positively identified as bowls (eg CUGL69233).

In a few cases, very large and diagnostic sherds were recorded as unidentified. For example, purple transfer-printed earthenware sherd CUGL69249 is approximately 150 x 85 mm in size and contains the rim and large portion of the body of a jug or vase. Despite this, it was recorded as 'unidentifiable' and while, without the base or a handle this cannot be conclusively determined, the artefact may have been appropriately recorded as 'Jug/vase' or a note to this effect made in the comments field.

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<sup>26</sup> The systematic recording of fabric decay, usage wear and post-depositional wear was undertaken for selected contexts only and was considered an 'experimental procedure' (Carney 1999d: 17). These two decayed sherds which were not noted to have 'fabric decay' were both from C295, a sandy fill in Cribb's shop well, which was selected as part of the experiment.

While in several cases the identification of a particular vessel remained speculative, it would have been advantageous to note 'possibly plate or saucer' in the notes field. This is a problem that has been identified in other databases in the EAMC project.

In the case of the miscellaneous artefact class, nine fragments identified in the sample that had been tentatively identified as pen shafts were in fact pen nibs (CUGL50653–CUGL50661).

### *Type Series*

While overall, the type series for each artefact class in the Cumberland and Gloucester Streets site catalogue is far more detailed than any other in the EAMC project, there were a few anomalous types or type allocations.

Firstly, 7,550 bags are grouped under 'miscellaneous' type-series categories such as 'TP-E'ware Blue 1: misc' or 'Bane-and-line ware 1: misc'. Some of the sherds grouped therein are duplicates of the same, un-named pattern but most appear to be sherds from one-off or unrepeated patterns.

Other examples include quite particular transfer-printed patterns that have been grouped under 'miscellaneous' types. For example CUGL40992 contains 11, conjoining earthenware sherds of an unidentified geometric brown transfer-printed pattern, grouped under 'Transfer-printed Brown Earthenware 1' which is 'Miscellaneous' and fragments from CUGL69270 and CUGL69272 share an identical purple transfer-printed pattern but were grouped under the general 'TP-E'ware Purp 1'. Both these pattern may have been better grouped under their own type.

These miscellaneous groupings have a considerable impact on minimum vessel counts and may require breaking-down further into 'miscellaneous geometric' or 'miscellaneous floral transfer-printed earthenware'.

There were also inconsistencies within other, more specific type categories. For example, various 'Palestine'-pattern sherds were allocated to TP-E'ware Green 2 identified as having the marks of William Adams, but many did not bear the Adams' mark and displayed minor variations (eg CUGL40981 and CUGL40985—had double-zigzag lines and dots on stipple, not just stipple background). In a similar example, the Type example for Lantern Wick Adjustor 1 (CUGL50618) has an impressed maker's mark: 'JAMES BOOTH & HAYDNS WAT. BURY CT [CONNECTICUT]'. The Type description is '?-1879; "Connecticut"; round with Squ hole' but the two other Repeat Types (CUGL50619 and CUGL50621) are unmarked and cannot be assumed to have been made in Connecticut. In another case of inconsistent type categories, a small fragment in the bag of CUGL69135—grouped under 'Ceramic unid 1'—was elsewhere identified as 'sprigged porcelain'.

Other minor errors include examples of sherds that may be better grouped under other numbers within the type group. For example, lead-glazed ware sherd CUGL69137 was catalogued as Type 1, which is described as 'white fabric, [with] yellow int & ext glaze'. In addition to the yellow glaze, the sherd also had traces of green and hence would have been more appropriately grouped under 'Lead-glazed Ware 3', which is the same as Type 1 with 'white fabric, [with] yellow int & ext glaze, traces of Green'.

Other examples of erroneous type categories are related to errors or mistakes made in material identification. For example, fragment CUGL61820, typed under White Earthenware 3 is actually White Stoneware. Two curved fragments of vulcanite (CUGL50702, CUGL50703) are typed under 'Vulcanite Shaped 8', which is described as 'tapered rectangular block'.

### *Material*

The material identifications of 26 records were erroneous, questionable or ambiguous. There were four fragments identified as vulcanite that were either glass or some kind of stone (CUGL50696, CUGL50699, CUGL50700, CUGL50705) and seven marbles identified as porcelain that were either earthenware or some kind of stoneware (CUGL50457, CUGL50459–CUGL50462, CUGL50468, CUGL50470). There was also the case of CUGL61820, catalogued as white earthenware but actually white stoneware, discussed above in relation to Type Series development.

Also, as at other sites, 19 sampled sherds identified as porcelain were not true porcelain. Most had some characteristics of porcelain but were not transparent and are perhaps better catalogued as 'Fine stoneware' or 'Porcellaneous fine stoneware'. Unlike the Mint site, none were identified as earthenware, and the issue is considered a semantic rather than substantive one.

### *Decoration descriptors*

Descriptions of the decorative elements of some artefacts were questionable or ambiguous. For example, two ceramic sherds identified as Spongeware appear to be purple transfer-print (CUGL69155, CUGL69159). There were six sherds in the sample identified as mulberry-coloured transfer-printed earthenware that were in fact blue transfer-print (CUGL61859–CUGL61864). One band-and-line ware sherd with two brown stripes was identified as multicoloured; a cream and brown Chinese fine stoneware sherd was erroneously described as blue; the clear glass fragments of bag CUGL04215 were erroneously described as cobalt; and decorative element CUGL54239 was described as hexagonal rather than round. While the erroneous recording of decorative colours does affect the establishment of minimum vessel counts, the occurrence of such errors is too low (0.04% of sampled ceramics for example) to be of concern.

### *Form*

Regarding glass artefacts, some small fragments with very slight curves were identified as being 'round' in section. In these cases (CUGL03972, CUGL03994 and CUGL04036 for example) a more appropriate term may have been 'curved'. This is a relatively semantic issue and importantly, this term was used consistently across the sampled records.

### *Other*

There were a small number of cases for which additional details and marks noted in the database record could not be seen on the artefacts themselves. These included the inscription 'C' or 'AC' on food/condiment bottle sherd CUGL04039; the 'manufacturer's mark' on glass sherd CUGL04177; the word 'TAM' on the 'Tam O'Shanter' doll head CUGL51447; 'Germany' on the doll head CUGL54192; and the 'bands and roses' on purple transfer-printed earthenware sherd CUGL69056.

## **4.2.7 MINOR ERRORS**

There were also a relatively small number of minor errors noted across all classes of the database. For example, the quantities of sherds in six bags were incorrect (CUGL04008, CUGL39946, CUGL36505, CUGL51382, CUGL69074, CUGL69115)—ranging from two sherds counted as one, to 25 sherds counted as nine. In the first two of these cases, it is probable that two conjoined sherds were counted as one.

Four elements of a doll's tea set identified in the sample were correctly Typed by their function, but an incorrect function identification was entered into the subfunction field. For example, the doll's teapot fragment CUGL51684 was allocated to 'Doll's Tea Set Type 9: white ribbed tea pot' but its Function was identified as 'cup'. While this does affect the subfunction of the vessels, this is not considered significant, particularly given that the conflict can be readily identified from within the database.

In other cases, the artefact form was mis-recorded: for example CUGL04058 is flat but was recorded as round and glass sherd CUGL03989 was recorded as flat, but it is slightly curved, which draws into question its identification as window glass.

In other cases, inscriptions were slightly mis-represented, for example, transfer-printed blue earthenware sherds CUGL69238 was recorded as having a mark 'SPODE', when in fact the visible mark was '...DE' and should have been recorded as '[SPO]DE'. In other cases, part of the inscription was omitted: for example, the 'G?S/1857 MM' on buckle CUGL50889 was recorded as 'G?S/1857'.

#### 4.2.8 INCONSISTENTLY COMPLETED FIELDS

While the Cumberland and Gloucester Streets site database contains a large range of fields, they were not all completed for every artefact, or artefact class. For example, only 755 (3.5%) of the 20,707 ceramic records had an estimation of percentage. In some cases, such as the plate CUGL40969 which is about 40% complete, the 30-odd-percent complete teacup CUGL40995 or plate CUGL40997 which is about 80% complete, the percentage is important.

Only 53.1% of ceramics and 39.3% of glass bags were weighed.

This may have been a factor of the prioritisation of artefact identification and analysis (see Section 4.2.1).

### 4.3 ARTEFACT STORAGE

During the course of the sampling process, some general observations were made about the state of storage of the Cumberland and Gloucester Streets site artefacts. While these do not directly impact on the research program undertaken by the EAMC team, it is considered worthwhile to note these issues relating to the collection's long-term management.

#### 4.3.1 THE HOWARD O'FARRELL BUILDING

The Cumberland and Gloucester Streets site artefact collection is currently stored in the Howard O'Farrell building on Cumberland Street, where the artefact analysis was undertaken between 1994 and 1996. Several other collections now managed by the Sydney Harbour Foreshore Authority are also stored there.

The building is not maintained and awaits demolition. Three groups of artefact boxes were noted to be subject to a leaking roof and damp floor (building materials and shell), damage from heat, sunlight exposure and rain from broken windows (bone). The building materials were moved and the bone boxes were covered with spare cardboard by the Project Archaeologist and Project Historian when the collection was inspected.

All artefacts from the Cumberland and Gloucester Streets site are stored in Government Records Repository cardboard boxes, piled 3-5 high along walls and within several rooms. The boxes are weak on one side and many piles have collapsed in on themselves. The glass and ceramic contents of two tumbled boxes were found on the floor earlier this year when first inspected by the Project Archaeologist.

Fortunately, none of the artefacts had broken and they were returned to their boxes. Other piles were stabilised and reduced.

It is intended to remove the Cumberland and Gloucester Streets and other collections from the Howard O'Farrell building in the near future, as soon as shelving can be organised in the ground floor of Foreshore House (Wayne Johnson, pers comm 2001).

*In July 2002, the Cumberland and Gloucester Streets assemblage was relocated to Level 1 of Foreshore House. Damaged boxes were replaced and all boxes are now stored on sturdy shelves in a stable and secure environment.*

#### 4.3.2 BAGGING OF ITEMS

Three conjoining artefacts (two ceramic, one glass; CUGL34532, CUGL40969, CUGL40973) had been masking-taped together in the bag, which is not considered appropriate for long-term storage. The edges of fragments not firmly taped together can grate and grind when the bags are handled, and the tape eventually falls off, leaving behind a sticky residue.

#### 4.4 RESEARCH POTENTIAL OF THE CUMBERLAND AND GLOUCESTER STREETS SITE ARTEFACT ASSEMBLAGE

Throughout the stages of excavation, assessment and post-excavation analysis, there have been numerous assessments and statements of the archaeological research potential of the Cumberland and Gloucester Streets site. In a comprehensive Statement of Cultural Significance prepared following the conclusion of excavation, GML commented that:

The results of the archaeological excavation contribute an extraordinary amount of information about the specific lives of individual occupants and the general lifeways of the period. The structures and artefacts provide the material dimension: the site of rooms, configuration of houses and streets, people's possessions and the manner in which they used them to conduct their daily lives. (GML Oct 1994: 27)

Further, they commented that the site and its excavated assemblage, had the potential to contribute to the understanding of the history of New South Wales in relation to the five major historical questions outlined in the research design (GML Oct 1994: 26):

1. the impact of the industrial revolution and the rise of class
2. women's occupation and lives
3. the ongoing debate on the standard of living for working class people in urban areas
4. the social and cultural role of the rocks within the larger city; and
5. the changing impact of Government over the historical period.

While, in their excavation reports, GML substantially addressed these questions, the research potential of the site has not yet been satisfied and by its nature, perhaps never will be. The resources—the artefacts, the site records, the database—remain and continue to yield the potential to further develop the responses to the key research questions and to contribute to other areas of research not considered at the time.

And, given the nature of the site assemblage and the pioneering work of the project undertaken by GML, their research raised as many questions as it answered. The artefact specialists each identified a number of 'research opportunities' in their reports. While many were concerned with the development of material-culture typologies and illustrated catalogues to improve the general level of artefact studies (eg Barnes

1999: 4.1.1–4.1.7, Holmes 1999b: 416–417), others identified the need for statistical analysis, the testing of class-based models for ceramic research or the comparison of particular assemblages (eg coarse earthenwares from the site with those from the wreck of the *Sydney Cove*). In summary, the more substantive, site-specific (ie not general, material-culture-specific) opportunities were:

- completion of the analysis of bulk-bagged material (Wilson 1999b: 310; Iacono 1999b: 37)
- comprehensive, statistical analysis within and across the artefact class of the site assemblage (Carney 1999d: 81, Wilson 1999b: 310)
- comparison with other collections (Wilson 1999b: 310, Iacono 1999b: 37)

More specific areas include:

- comparison of different deposit types within the site (Carney 1999d: 81, Iacono 1999b: 37)
- statistical analysis of post-depositional wear patterns (Carney 1999d: 81);
- statistical analysis of ceramics to test models of status (Wilson 1999b: 310)
- comparison of on-site structures with Building Act and Sewerage Act legislation (Barnes 1999: 167)

One of the reasons why the Cumberland and Gloucester Streets site is still ripe for further research despite being so extensively interpreted, is the range of artefact-rich deposits dating from the earliest years of European settlement to the turn of the 20th century, many of which were discovered largely undisturbed. There are underfloor deposits from nine houses and cesspit fills for ten, amid several hundred yard, refuse and construction deposits (see Table 8). While the underfloor, cesspit and refuse deposits are not all of equal integrity, they provide a suite of contextualised artefact groups that will allow detailed comparison of household and commercial assemblages from across the site, over time.

**Table 8** List of non-structural deposits recovered from the Cumberland and Gloucester Streets site.<sup>27</sup>

Deposit Type	No. Units <sup>28</sup>	No. Assoc Structures	Est. No. Artefacts
Underfloor	748	9 (see note <sup>29</sup> )	182,259
Well fills	2	1	11,915
Cesspit fills	57	10 (see note <sup>30</sup> )	25,124
Yard fills and surfaces	271	14	39,872
Other occupation and refuse deposits	15	4	25,035
Construction and other deposits	476	28	50,244

<sup>27</sup> These are rough calculations only, based on preliminary categorisation of each of the 2,731 contexts recovered from the site.

<sup>28</sup> Note this includes all spits and grid squares within particular deposits, thus providing some areas or types a high frequency of units of smaller volume. For example, the underfloor deposit from the two rooms of 1 Carahers Lane was excavated in more than 100 contexts: that being 3 spits from 29 half-metre squares and other specific areas (such as the fireplace) and specific contexts (eg the interface between occupation and demolition).

<sup>29</sup> The King House, Cribb's Shop, the Bird in Hand, 93 Gloucester Street, 5 Carahers Lane, 4 Cribbs Lane, 4 Carahers Lane, 128 Cumberland Street, 1 Cribbs Lane, 1 Carahers Lane. Not all deposits recovered from under the floor level of 5 Carahers Lane are 'underfloor deposits'. They are construction fill for a drain which once ran under that building (see Crook 1999: Appendix 2).

<sup>30</sup> This does not include deposits identified as redeposited cesspit fill.

## 5.0 ASSESSMENT OF THE ACCURACY AND USEFULNESS OF THE CATALOGUE

Based on the sample outlined above, the Cumberland and Gloucester Streets site artefact catalogue is by far the most comprehensive and detailed catalogue across all artefact classes to be utilised in the EAMC project. However, there were some significant issues that impede the commencement of detailed analysis.

These are:

- the numerous bulk bags in significant, 'Priority 1 or 2' contexts (Section 4.2.1);
- the 'missing records' (despite being small in the number), and erroneous box numbers (Section 4.2.2);
- the high rate (22.5%) of erroneous portions in the ceramics assemblage; and
- omitted inscriptions and marks.

Other issues include:

- the inconsistent allocation of function and subfunction categories (Section 4.2.6).

### 5.1 IMPLICATIONS

The frequency of bulk-bagged material is of considerable concern, but is fortunately readily identifiable from the database. From a quick tally of context types, there are 730 bulk bags from cesspit and well fills, various underfloor deposits and yard refuse pits across the site and over all phases that the EAMC may wish to analyse. There are another 430 from other yard fills that may be relevant to the research, and even more may be identified from a closer inspection of context types. While the EAMC team may manage the sorting, cataloguing and rebagging of some of this material, it cannot undertake to complete this enormous task.

Given these circumstances, the way forward for the EAMC analysis is to examine only a few houses from a few phases and seek additional funding to sort and catalogue these bags, preferably within the timeframe of the project.

The errors and omissions outlined above—and including other preliminary catalogued bags not clearly recorded as 'bulk bags'—affect the data in a way that can only be identified or quantified through a process of physical verification. While these errors are problematic and diminish some confidence in the database as a whole, those such as the portion can be attributed to a specific field in one artefact class, and this can be taken into account when preparing minimum vessel counts. Others are likely to be a result of overall prioritisation of the artefact analysis and it is hoped that these will affect few of the more significant contexts that the EAMC team will utilise in its study. Hence, the impact on the overall study need not be considerable.

The questionable function attribution is an issue encountered at all sites reviewed by the EAMC to date and is likely to be the result of a wider problem in the cataloguing of historical-archaeological artefacts. This may require an inter-site strategy to further assess and overcome the problems raised by this unsystematic approach.

The EAMC team will prepare a selected list of contexts required for study in the project in April 2002 and will reconsider options for, and the level of corrective or verificatory work necessary, at that time.

Owing to the exceptional research potential of the Cumberland and Gloucester Streets site artefact assemblage, and the considerable work already invested in the study of the assemblage study, it is imperative that additional work be undertaken to ready the database for comprehensive intra-site and inter-site research, as a matter of urgency.

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