MILLERS POINT SITE 8900

HISTORICAL ARCHAEOLOGICAL REPORT

STAGE 1

32 MERRIMAN STREET

55 KENT STREET

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with

The Sydney University Centre for Historical Archaeology

for

The Department of Housing Urban Renewal Group.

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1. **INTRODUCTION.**

Millers Point Site 8900 is of unique archaeological potential and therefore of unique archaeological sensitivity. To quote from the Archaeological Master Strategy for the Site (Bairstow, 1987, 3):

1. It was first occupied by the 1820s and has been occupied continuously since that time

2. It contains buildings and building sites from every decade between 1820 and 1920

   It contains buildings and building sites which embrace a cross-section of urban use - private dwellings, public houses, boarding and lodging houses, flats, shops and commercial buildings

   As a measure of hygiene, the Sydney Harbour Trust poured concrete or asphalt over almost every backyard, thus effectively sealing the 19th century deposit from 20th century disturbance.

In Millers Point Site 8900 we have, therefore, an unprecedented opportunity for the study of our 19th century past, and the socio-economic impact of its booms and busts on a cross-section of Sydney's community.'

In brief, almost the whole of Millers Point Site 8900 is of archaeological significance.

It is self-evident that the whole of this Site cannot be subjected to detailed archaeological investigation. Thus the Archaeological Master Strategy sought to formulate a method for site sampling across space, time, occupational differences and social classes. Individual properties were nominated as being

- of extreme archaeological sensitivity
- archaeologically sensitive
- of moderate sensitivity

Whilst this classification was in part subjective, the object was to isolate

- sites developed before 1850 or, if after 1850 were of non-standard use. 'Non-standard' included shops or other commercial premises, public houses, private hotels, and high-class dwelling houses, many of which were later used as lodging or boarding houses. Such sites were considered of extreme archaeological sensitivity justifying archaeological investigation.

- sites with no evidence of occupation before 1900 or which had been subjected to 20th century redevelopment to such an extent that evidence of the past was likely to
have been obliterated or so disturbed as to render it meaningless. Such sites, deemed to be of only moderate sensitivity, did not justify archaeological investigation.

Properties falling between these two extremes were noted as being sensitive. They did not justify expensive, labour-intensive investigation since the evidence they could yield as to the social and historical development of 19th century Sydney and of Millers Point in particular could be gained from sites falling within the definition of 'extreme' sensitivity.
2. THE RESEARCH DESIGN.

In his *Socio-Economic History of Miller's Point* (Kass, 1987), Terry Kass examined a number of themes appertaining to that history.

He traced the history of land grants, the large grants to merchants whose wharves and warehouses stood along the foreshore, the small grants for domestic occupation inland, the gradual subdivision of the former and the emergence of speculative workers' housing built for sale or rent. Against this general trend for Millers Point as a whole, houses were built also for the merchants and gentry attracted to the area by its proximity to, yet isolation from, the commercial hub of Sydney. One such was Spencer Lodge which stood at the west end of Merriman Street. Built about 1835 and later used as the Eye Hospital, it survived until after World War II when the west side of Merriman Street was quarried away to provide space for what is now a major container wharf. Town houses for the gentry were erected in Lower Fort Street, on the west side of Kent Street and in Argyle Place. By the end of the 19th century, many of these had been converted to lodging or boarding houses, a trend that was to continue well into the 20th century. (Kass, 1987, 4, 8, 43, 45, 53, cf. 51)

Kass studied the ethnic background of Millers Point's inhabitants. While making the reservation that his figures were based on statistics recorded for Gipps Ward as a whole, he has assessed that the proportion of English born residents was lower than elsewhere in Sydney, Scots were higher, Irish about the same, but, by 1851, the area had attracted the highest percentage of foreign born and people from other parts of the Empire of any area in Sydney. (Ibid, 13-14)

From 1841 - 1871, the period during which statistical information is available, the occupations of Millers Point's residents also varied from those of the rest of the city. Miller's Point had a lower proportion of merchants and skilled artisans than the city norm while, attracted by the waterfront and the dockside, the numbers of seaman, including ships' officers, of wharf labourers, carriers and the unskilled was high. Kass traced the gradual diminution of skilled occupations, of the professional and educated as the 19th century moved to the twentieth. Ibid, 16-17)

Kass began his discussion of 'Work' with the first industrial enterprises in Millers Point, the erection of windmills to grind flour. The first were government built and stood along the ridge now occupied by the Observatory and the National Trust, but by the 1820s John Leighton had started milling on Millers Point proper, in the general area of Merriman Street, part of the Department of Housing's Site 8900. (Ibid., 20-21)
In 1900, bubonic plague struck Sydney. Although the number of deaths were few, the reaction by a city which had thought itself immune from such a disease was swift, extensive and was to have long term results. Millers Point was one of the areas placed under quarantine, its inhabitants subjected to the operations of cleansing squads and precluded from moving into the rest of the city even to go to work. (Ibid, 29-30, 59-60)

The Archaeological Master Strategy for Millers Point Site 8900 (Bairstow, 1987) was based on Kass's work supplemented by the Mitchell Library's collection of maps. The aim was to pinpoint, so far as possible, sites of 19th century development and redevelopment so as to predict in advance of urban renewal sites of archaeological sensitivity, meaning thereby that they could reveal structural remains of the past. Such sites could also be used to answer research questions formulated from Kass's work. It is no longer justifiable, either in terms of academic research or of public funded archaeology, to excavate merely in the hope of discovering the unknown. The unknown should always be anticipated - the best of research designs is likely to be confronted by the unknown factor - but the expense of archaeological investigation can be justified only when there are valid questions to be answered or viable theories to test by independent, in the case of archaeology, material, evidence. This is particularly true of Historical Archaeology, that is, the archaeology of historically documented sites.

Given the ever present constraints of time, funds and available skilled personnel, socio-economic research questions should also be tied to the traditional archaeological quest for structural remains from the past. Thus areas were selected for excavation because there was the possibility of locating, beneath the extant buildings, remains of earlier buildings known from historical maps to have been on or near the site. The front of 32 Merriman Street was a possible site of one of Leighton's mills, the rear had been developed by 1850. 55 Kent Street was first developed by 1833, thirty years before the extant house. Once selected, these sites could be used also to investigate research questions based on the information Kass has provided.

Some areas of research, for example the difference in cultural and consumer terms between millers Point and the rest of the City of Sydney, cannot be tested by excavation limited to Millers Point, though excavation in Millers Point can generate the data on which to test Kass's conclusions once the information for other parts of the city becomes available. Other matters raised by Kass could be pursued within the framework of the current programme.

32 Merriman Street is one of a terrace built speculatively as workers' housing. 55 Kent Street, on
the other hand, was owner occupied and built, according to local history, by a Swede, one of the foreign born attracted to Millers Point. One question for investigation, therefore, was how far artefactual evidence reflected these disparate backgrounds.

32 Merriman Street, according to Sands Directory, was occupied by a series of semi-itinerant tenants, the floating population of unskilled or semi-skilled attracted by the dockside to whom Kass refers. The Kent Street house was occupied by a single family from the time it was built until the death of the last survivor in Millers Point three years ago. This difference, too, should find reflection in the artefact evidence.

Millers Point was a quarantine area during the 1900 plague. How did the people most affected by the measures taken to stop the spread of the disease react? Did they, too, panic and burn everything in sight, or did they quietly go about their business as best they could?

Funding for the present investigation was limited to a single site, 32 Merriman Street. It was good fortune alone that allowed work to extend to a second site. Excavation of 55 Kent Street, however, was limited to a single sample instead of the two samples recommended. The limitations placed on excavation to date has limited both the research questions asked and the results. As and when samples increase, new questions can be asked which appertain to, for instance, the social conditions in boarding or lodging houses, in public houses or private hotels, as distinct from family occupied dwelling houses. Shops and commercial premises can reveal evidence of local supply of food and consumer goods and of the nature and conditions of work. These questions are for the future.
3. ARCHAEOLOGICAL STRATEGY.

The strategy proposed for the archaeological programme was cross-site sampling. The aim of this means of investigation was to yield maximum information at minimal expenditure. No single site, however sensitive, would be subjected to full scale excavation. Instead, a number of sites would be samples and the data recovered compared quantitatively and qualitatively to reveal occupational differences, social patterns and change through time. Such sampling was not to be random. Of equal importance to the social and cultural information that artefacts could yield was information concerning the identification, use, indeed the precise location often, of buildings known from early records, graphic and documentary, to have existed in Millers Point Site 8900 in the first half of the 19th century. Thus dual criteria were applies in the selection of sites for excavation. They must:

1. Have the potential to yield information concerning early structures, and

2. Have potential to yield social and cultural information over time.

These criteria, however, are secondary to the overall strategy which sought to reveal information for comparison across Millers Point and throughout its history. Thus this report, which involves the sampling of one site only, 32 Merriman Street, and the partial sampling of another, 55 Kent Street, must be seen as a preliminary report only. No valid conclusions applicable to Millers Point can be drawn from so limited a sample.

A third factor must also be taken into account in any archaeological investigation and that is the unknown. Whilst it is no longer considered viable or even meaningful to excavate solely for the purpose of discovering the unknown, it remains an ever present consideration. Indeed, if the excavator knew in advance precisely what would be exposed in the course of excavation, there would be little reason to excavate. Unfortunately, sample excavation is often inadequate to allow interpretation of the unknown. The area exposed by the sample is too small. This is the major disadvantage of excavation solely by sample, but with an area of the magnitude of Millers Point Site 8900, that disadvantage must be weighed against the cost of full scale excavation.
4. CONSTRAINTS.

In its urban renewal programme for Site 8900, the Department of Housing must contend with the time/cost problems inherent in building construction multiplied by the number of sites involved and exacerbated by tenant occupation and the demand for public housing. The renewal programme, therefore, must run to a tight schedule. Archaeological investigation cannot, except perhaps in extreme cases, interfere with that schedule. Experience in the United States indicates that excavation ahead of building construction is more effective in terms both of cost and yield of data. Thus the archaeological programme for Millers Point has to occur within the limited time between vacation of the site and the commencement date of the building contract. It was this constraint which led to the selection of the two properties, the subject of this report.

Of the 22 properties designated for immediate or almost immediate renewal, six are of extreme archaeological sensitivity. In order of archaeological priority, they are:

32 Merriman Street.
1822: possible postmill site
1850: redevelopment
1862-5: second redevelopment - extant terrace

Use: Workers' housing

38 Argyle Place.
1823: first development
1850: redevelopment
1890: second redevelopment - extant terrace.

Use: Rooming house.

73 Windmill Street
1833: first development
1880-90: used as a public house or private hotel
1900: redevelopment - extant flats.

Use: Private dwelling/ public house/ private hotel/ flats

55 Kent Street
1833: first development
1865: redevelopment - extant house.

Use: Gentleman's residence/ in the occupation of a single family for 120 years.
52 Argyle Place

1850: first and only development - extant terrace.

Use: Gentleman's residence/rooming house.

73 Kent Street

1836: first development
1854-6: redevelopment - extant terrace

Use: Gentleman's residence/boarding house/rooming house.

Available funds permitted full sampling of only one site, 32 Merriman Street, the first in terms of archaeological priority, though it was envisaged that, should time or volunteer numbers permit, investigation would extend to a second site. The second site, 55 Kent Street, was chosen not because of archaeological priority but because it was the only other site of extreme sensitivity which was vacant and therefore available at the time of the investigation.
5. SUMMARY OF RESULTS.

Very little can be said about the Area 1 excavation at 32 Merriman Street. At the time of renewal of the flooring, the whole sub-floor area had been cleared back to bedrock. It is even possible that the surface of the bedrock had been scraped off. If this was the site of one of Leighton's mills, there was no evidence of that fact. Almost all artefact evidence, apart from architectural debris which relates partly to the construction of the cottage and partly to the renewal of the floor, had been swept away. For the purposes of socio-economic comparison, the material made available from 30 Merriman Street may be of assistance.

The Area 2 excavation, on the other hand, yielded complex information but of an unexpected kind. Within the excavated area was a dry sandstone wall still standing to a height of 0.5 metres at the base of which was stone flagging. Neither these structures nor the archaeological units found in association with them had anything to do with 32 Merriman Street. Indeed they appeared to predate the Merriman Street cottage by several decades.

The space to the east of the wall, that is, the area between the wall and Rhodens Lane, had been filled. Whilst the archaeological fill units appeared to vary slightly, analysis of the artefact content of each showed nothing to suggest that they were other than contemporary. At a point in line with 32 Merriman Street, the natural rock face of Rhodens Lane has been built up by six courses of stonework. Ashlar infill is common on the west side of Rhodens Lane, suggesting that bedrock on the escarpment had once been eroded into a series of outcrops and depressions, one of the latter being at the rear of 32 Merriman Street. The ashlar infill suggests that the fill units are contemporary with the construction of Rhodens Lane in its present form.

At a later stage, the back yard of Merriman Street was paved with brick. Since the surviving brickwork runs diagonally towards and apparently beneath the back fence, the brick paving would appear to predate the fence. According to oral evidence, the Merriman Street terrace was not fenced until the 1920s or 1930s. Thus the brick paving need be of no great date. It could have been the result of a hygiene precaution taken by the Sydney Harbour Trust. This would date it to the early years of this century. The asphalt paving must be of even more recent date.

The upper units, both archaeological and structural, therefore, pose few problems that could not be answered by more detailed documentary research supplemented by oral history. The drystone wall, however, cannot be explained in this way.
Fig. 1  Lustre ware cup from Unit 14.
(1/2B(14)25, Ref.ID638)

Fig. 2  Blue transfer-printed saucer from
Unit 16 (1/2A(16)5, Ref.ID707)
Clearly the wall predates Rhodens Lane in its present form. Indeed, it would seem to predate Rhodens Lane. According to maps produced by Kass (Kass, 1987) Rhodens Lane was not constructed in its present form until this century. However, by 1854 buildings had been erected in line with the south end of the lane (Bairstow, 1987, 22) which suggests some form of right-of-way at this point. On the 1850 map, however, buildings are shown which cross the line of the lane near its southern end (ibid., 20). It had been assumed that any structural evidence found at the rear of the Merriman Street house would relate to these buildings. On scale, however, most of these buildings are small, unlikely to be associated with so substantial a structure as the drystone wall. One building shown, though slightly to the east of Rhodens Lane, is somewhat larger and this structure appears to date back to 1836 (ibid., 16). Although it must be repeated that sample excavation is inadequate in size to enable more than tentative interpretation of structural features, the available evidence, archaeological and historical, suggests that the wall and the adjoining stone flagging dates to 1836 or even earlier.

Ceramics recovered from the archaeological deposits found in association with the wall were of high quality (Figs 1 and 2), indicative of socio-economic status out of keeping with the semi-itinerant working-class men known to have occupied 32 Merriman Street during the last century. Some of the ceramics could be dated. Within the archaeological deposit adjacent to the paving stones, a deposit of domestic material which must postdate the use of those stones as a thoroughfare or floor, were ceramics with a mean date of 1830 and 1841. The latter, a salt-glazed stoneware bottle, is likely to have been discarded early, but even after allowing the deposition lag calculated for American towns of 10-15 years, the deposit is no later than 1856, predating the construction of 32 Merriman Street by seven years.

In the archaeological deposit immediately below, another domestic deposit which was found adjacent to and beneath the base of the south flagstone and which therefore predates the paving, was another fragment of ceramic which could be dated to 1822-1834, giving a mean date of 1828. Adding the deposition lag, that deposit could be dated to c.1840.

It is clear, therefore, that neither deposit can be associated with the 1850s buildings. They must be linked to those known from the 1836 map. Combining historical and archaeological evidence, the history of the Area 2 deposits can be expressed in terms of a dated matrix (Fig.3)
The excavation of 55 Kent Street was also disappointing. The kitchen was not the prime area targeted for excavation but was intended to act as a check to socio-economic data recovered from beneath the ground floor front room, the apparent site of a building erected by 1833. Whilst the excavation proved of interest so far as the construction of the kitchen was concerned,
6. RECOMMENDATIONS.

1. That so far as possible the drystone wall at the rear of 32 Merriman is not disturbed in the course of building reconstruction. Whilst its precise significance has not been determined, this is the earliest structure so far known in Millers Point Site 8900.

2. That the excavation programme be expanded as envisaged in the Archaeological Master Strategy for Site 8900 (Bairstow, 1987). Having taken into account the constraints of cost and time, the recommendation then made was for cross-site sample of archaeologically sensitive site types. Monetary restraints imposed on the present programme limited it to a single sample. It was only because the sub-floor deposit at Merriman Street had been swept clean that cost/time permitted the recovery of a second, comparative sample. However, no sample to date, singly or cumulatively, is sufficient to enable cross-site, cross-culture or cross-class statistical comparison.

3. That an oral history programme be undertaken in conjunction with any future archaeological programme as recommended in the Archaeological Master Strategy (ibid.,6). The recent excavation attracted local interest, especially among the older inhabitants. Much oral information was gained, but more was lost by reason of the priorities necessarily imposed on the excavation team.

4. That additional historical research be undertaken in order to test the archaeological findings for the Merriman Street site.
7. SITE 1. 32 MERRIMAN ST.

7.1 HISTORY AND DESCRIPTION OF THE SITE.

In the 1820s, John Leighton had three postmills on Millers Point. Although the precise location of these mills is unclear, a possible site for one of the mills is near the front of the extant cottage.

By 1850 buildings had been erected on the ridge along the line of Rhodens Lane. The nature of these buildings seems not to have been recorded but they extended into the rear of this property.

The site was redeveloped by 1863 when the extant house, part of a terrace of four (28-34 Merriman Street) was constructed. The terrace, of brick with a slate roof, was built on the street alignment, a narrow laneway being left south of 34 Merriman Street to provide access to the rear for nightsoil removal. Oral history has it that the cottages were not fenced until this century. This allegation seems to be supported by the archaeological evidence.

Each house comprises two small rooms up and two down with kitchen, laundry and lavatory as a separate structure, possibly of later date, about 1.5 metres behind the house proper. At some time, apparently after World War II, the kitchen block at 32 Merriman Street was linked to the main house by a lean-to which was fitted out as a kitchen. Entrance is from the street directly into the front room (Fig. 4). Access to the upper floor is by a staircase against the rear wall of the second room. Thus the upstairs front room can be reached only through the back room. It is clear that this terrace was built as speculative workers' housing for sale or lease but not for owner occupation.

This allegation is supported by the occupations of residents recorded in Sands Directory. The Directory sometimes fails to record street numbers or occupations but despite the omissions a clear pattern can be discerned. Like Kent Street, the west side overlooking the harbour, tended to be occupied by people of higher social status to those who lived on the east side. In 1863 we find living in 28-32 Merriman Street:

John Toomey, sawyer
Robert Stewart, watchman
John L. Burn, sailmaker
George Fleming, shipwright

Two years later all the residents on the east side with the exception of John Toomey had changed. In this edition the street numbers are not provided, while the only occupations recorded apart from Toomey's are a mariner, meaning an ordinary seaman, and a shipwright.
FIG. 4

SITE 1
32 MERRIMAN STREET

MERRIMAN ST.

EXCAVATION AREA 1

ENCLOSED SKILLION

N

APPROX. 0 - 3 M.

EXCAVATION AREA 2

LANE

RHODENS LANE
Few occupations are listed in 1870, but again most of the names have changed.

The 1875 edition is more detailed. At that time the occupants of the terrace were:

- 28: James Bardsley, schoolmaster
- 30: Michael Nelson, clerk
- 32: George McIntyre, cooper
- 34: James Bell, blacksmith.

Of these men only James Bardsley had been there five years earlier.

Later in the century occupations are no longer provided but the names continue to change, the pattern of itinerant workers whose occupations are low in social terms remains the same. Only this century, after resumption by the Sydney Harbour Trust and the consequent change from private to public ownership, is there any security of tenure.

Whilst the excavation of 32 Merriman Street was conducted primarily to seek evidence of the early 19th century structures which had stood on the site, the potential to yield social data concerning the shifting population of dockside and harbour related workers who had comprised much of Millers Point's inhabitants during both the 19th and early 20th centuries was not forgotten.

7.2 THE EXCAVATION

1. Introduction.

Two areas were selected for excavation. Originally designated A and B, they were renumbered for computer purposes 1 and 2. Area 1 was beneath the floor boards in the ground floor front room, a possible location of one of the postmills from which Millers Point gained its name. Area 2 was against the back fence, a site developed by 1850. (Bairstow, 1987)

2. Area 1

2.1 Preliminary Work.

In advance of the excavation, floor boards had been removed but only for 3 metres from the east internal wall and 2.5 metres from the north party wall (Fig.5). A floored passageway from the front door had been left intentionally but the labourers, mistaking instructions, had left the boards adjacent to the front wall, thus precluding access to the front foundation trench or the area beneath the window. This, as it transpired, was of little importance.
Site 1, 32 Merriman Street, Area 1
before excavation
2.2 Aims of the excavation.

The aims of this excavation were twofold:

1. To recover any evidence of the former postmill, and

2. To recover a statistical sample of artefacts, the dross of European occupation from the early 19th century to the present, or rather to such time as the extant floorboards were laid since the floor had been renewed with jacked tongue-and-groove pine boards in the recent past.

2.3 Excavation methodology

For statistical purposes, the excavation area was laid out in sections of 1 square metre identified alphabetically (A, B, C and D), but the dimensions of the available sub-floor space prevented these being 1 x 1 metre (Fig.6).

The excavation proceeded in traditional stratigraphic units, each being numbered consecutively starting from the top. Each bucket of excavated material was weighed to enable statistical comparison of artefact yield with the stratigraphic unit as a whole (see Appendix 1).

Unit 1

comprised compacted, sandy material blackened by exposure, dust and (very limited) organic growth. This was a thin layer, being only about 10mm. deep in the south-west sector though increasing to 25mm. towards the middle of the floor. This difference is reflected in the weight of the material removed (Appendix 1).

Almost all of the artefacts recovered fell into the functional category 'Architectural' (see Part 9). There were very few ceramic, glass or personal items.

Unit 2

comprised the soft, sandy material found immediately above Sydney sandstone. This, too, was thin, only 5mm. deep in spots but varying according to the formation of the bedrock beneath. There were few artefacts compared with Unit 1 and what there were reflected the upper unit.

Unit 3

Bedrock had been cut to enable insertion of stone footings for the brick wall. The only section of the construction trench available was against the east internal wall. The cut was 80mm. from the footings in
SITE 1, AREA 1

(FOR UNIT DESCRIPTIONS SEE OVERLEAF)
the north end but reduced to less that 40mm. in the south (Quadrat D). It could be probed to a depth of 350mm., though the narrowness of the gap between bedrock and footings prevented excavation to this depth.

Two discrete units were located beneath Unit 2 in the bedrock:

Unit 4

comprised material recovered from a natural depression in the rock 220mm. deep. Much darker in colour than the material above, it was clear that it had been deposited before Unit 2.

Unit 5

was a similar depression but small and angular as if cut for a 3" by 3" post. Accordingly it was investigated as a separate unit, but the depression proved to be too shallow, only 60mm. deep, to have supported anything. Thus it was considered to be another natural formation. As with Unit 4, the material recovered was darker than that above and therefore an earlier deposit, but it was barren of artefacts.

Unit 6

comprised a small deposit of even darker material located beneath Unit 4. The change in colour appeared to reflect only additional water penetration or run-off.

2.4 Results of the excavation.

The results of this excavation were disappointing. It was clear that at the time of renewal of the floorboards the space beneath the floor had been deepened to allow greater circulation of air. This suggests that the original floor had developed wet rot. The joists had also been renewed, though inserted into the slots cut in the stone footings for the original joists. The difference in height was made up by the insertion of brick piers capped with slate, the latter seemingly being architectural debris from the original construction. Since Sydney sandstone is prone to decay, Unit 2 may have been caused by natural erosion. Alternatively, it could have been the result of deliberately cutting back the bedrock to help prevent the recurrence of rot. Whatever the cause, no evidence of a postmill on this site was discovered.

At the time of floor renewal, almost all artefact evidence of past occupation had been removed. However, the tenants of 30 Merriman Street had recently had their floorboards replaced in both downstairs rooms. In the few minutes between removal and the start of replacement, they had collected surface artefacts which they made available to the excavation team. Artefacts recovered in
such a way are usually restricted to the more obvious and visible. Whilst they cannot, therefore, be indicative of an archaeological deposit as a whole, the similarity of occupation type between the two houses suggests that they reflect the artefact type likely to have been found in 32 Merriman Street. These artefacts have been included in the analysis programme as Site 1, Area 3. Since this material came from outside the excavated area, it is dealt with only in the artefact analysis.

3. Area 2.

3.1 Preliminary work.

Workmen had been requested to remove the asphalt covering the proposed excavation area to at least 1 metre west of the back fence. The asphalt was removed for only 800mm, and, in the course of so doing, bricks lying immediately below the asphalt had been disturbed. The made interpretation of the surviving brickwork difficult, especially in so small an area.

3.2 Aims of the excavation

Again, the aims of the excavation were twofold:

1. To recover any evidence of the buildings known to have been in existence in this area by 1850, and

2. To recover a statistical sample of artefacts deposited over time.

3.3 Excavation methodology.

As with Area 1, the site for excavation was marked out in areas of 1 square metre. The limitation imposed by the 800mm. width available necessitated 2 nominal trenches (Quadrats A and B), each 1.2 metres long. Thereafter excavation proceeded, as with Area 1, in traditional stratigraphic units each numbered consecutively.

To facilitate interpretation of the stratigraphic units, slight changes in soil texture or colour were not assigned a unit number until they proved meaningful in archaeological terms. Thus, for example, Unit 13 comprised alternating layers of dark loam and sand. Although at first the material was kept separate, the changes were not significant enough to justify assigning a series of unit numbers in order to identify each. The material was eventually lumped together as a single stratigraphic unit.

As with Area 1, all buckets of excavated material were weighed (Appendix 2). For stratigraphic units with a noticeably different composition from the norm (the norm being sandy loam common to the Sydney area with small
rubble and artefact debris indicative only of a built-up area) a simple analysis was made of the material removed (Appendix 3).

Structural units were also assigned a sequential number to enable the eventual formulation of a stratigraphic matrix. To distinguish them from the archaeological deposits, the structural units were given the prefix, 2. Thus the first structural unit, the asphalt which had covered the site, became Unit 21.

It should be noted that the unit numbers do not correspond either with their depth from the surface or with their stratigraphic relationship.

Immediately below the asphalt were two sections of brick paving (Units 22 and 23) extending tangentially from the east and west faces of the excavated area (Figs 7 and 8). Both sections comprised identical, drypressed bricks, apparently seconds and with few whole bricks, but the relationship between them could not be determined. The eastern section was 30mm. below the level of the western section, not sufficient for a step, indeed it is more likely to be the result of natural subsidence, but the intervening area had been disturbed and any brickwork linking the two sections removed. Unmortared, the western section proved to have been laid in sand (Unit 5), but a thin layer of mortar covered part of the east section. Because of these disparities, the two sections were assigned different unit numbers, though the evidence of the bricks themselves suggests that they were part of the same structure.

The archaeological deposits were numbered consecutively starting with Unit 1.

Unit 1

comprised mixed material, the result of removal of the asphalt and disturbance of the top layer (Figs 9 and 10)

Unit 2

was the fill in a posthole dug through the asphalt to a depth of half a metre.

Unit 3

dark loam with clay intrusions was encountered immediately below Unit 1 in the north-east corner of the excavated area (Quadrat A). Elsewhere it appeared below Unit 4. Very little of this material was found in Quadrat B. Indeed, for this and other stratigraphic units there appeared a division of material between the two Quadrats on the east side of the trench but slightly to the north of the dividing line on the west side.
SITE 1, AREA 2

QUAD A  QUAD B

MORTAR
CONCRETE
IRON
UNEXCAVATED

UNIT S 22 & 23

FIG. 7
Site 1, Area 2. Brick paving (Units 22 & 23)
Unit 4

a lighter, sandy material containing much decayed mortar was found in both quadrats though not in the north-east corner of the excavated area.

Unit 5

was a thin layer of clean, yellow sand located immediately below the brick paving on the west side (Unit 22).

Unit 6

comprised brown sandy material with brick, sandstone, charcoal and mortar inclusions. It was located in the west side of the excavated area, the bulk of the deposit lying in Quadrat A (see Appendix 2). The deposit was visibly different from those previously excavated and accordingly was subjects to fill analysis (Appendix 3). On the east side of the excavated area Unit 6 was replaced by Units 7 and 11.

Unit 7

was a discrete layer of compacted sandstone rubble lying beneath the eastern two-thirds of Unit 23. It was found in quadrat B only.

Unit 8

was almost entirely within Quadrat B. It was located south and west of Unit 7 and extended only into the south-west corner of Quadrat A.

Unit 9

comprised heavy sandstone rubble with some cut stone which lay within Quadrat A almost at a right angle to the west wall of the trench in its upper section (Fig.11) though the stones were more haphazardly placed in the lower section away from the face of the trench. The relationship of this deposit to the structural unit (Unit 24) which was emerging on the west side of the excavated area could not be determined. This unit was also visually dissimilar to those previously excavated and was subjects to fill analysis accordingly.

Unit 10

was a discrete layer of dark loam rich in artefacts located north of Unit 9 against the west wall of Quadrat A.
SITE 1, AREA 2
DESCRIPTION OF UNITS

1. MIXED MATERIAL AFTER REMOVAL OF ASPHALT OVERBURDEN.
   INCLUSIONS: CONCRETE IN A, ASH IN B.

2. POSTHOLE FILL

3. DARK LOAM WITH CLAY INTRUSIONS

4. LIGHTER SANDY MATERIAL WITH MORTAR

5. CLEAN YELLOW-WHITE SAND

6. MEDIUM BROWN SANDY MATERIAL WITH BRICK AND MORTAR
   INCLUSIONS

7. SANDY MATERIAL WITH COMPACTED SANDSTONE RUBBLE

8. DARK SANDY LOAM WITH LITTLE RUBBLE CONTENT

9. HEAVY SANDSTONE RUBBLE INCLUDING SOME CUT STONES
   LAID AS RUBBLE FILL

10. DARK LOAM, RICH IN ARTEFACTS

11. MEDIUM BROWN SANDY MATERIAL SIMILAR TO UNIT 6
    BUT WITH LITTLE OR NO PLASTER, LESS BRICK AND
    MORE SMALL SANDSTONE RUBBLE

12. DARK SANDY LOAM WITH CHARCOAL, SIMILAR TO UNIT 8
    (POSSIBLY THE SAME MATERIAL) BUT WITH LARGISH
    SANDSTONE RUBBLE NEAR SURFACE

13. DARK SANDY LOAM WITH ALTERNATING LAYERS OF DARK
    GREY SAND

14. DARK SANDY LOAM SIMILAR TO UNIT 12 BUT WITH BRICK
    INCLUSIONS REPLACING SANDSTONE AND CHARCOAL.
    RICH IN ARTEFACTS

15. DARK SAND WITH SOME SANDSTONE RUBBLE, POOR IN
    ARTEFACTS.

16. DARK SANDY LOAM WITH DECAYED BRICK OR SANDSTONE,
    ARTEFACT RICH.
SITE 1, AREA 2
WEST SECTION

0 500 MM.

QUADRAT B

QUADRAT A

1. ASPHALT
2. CONCRETE
3. SANDSTONE
4. BRICK
5. UNEXCAVATED
Unit 11

comprised medium brown sandy material similar to Unit 6 but with mortar and brick being replaced by small sandstone rubble. It was located in Quadrat B below Unit 7 but the bulk of the material was within the eastern side of Quadrat A.

Unit 12

in depth from the surface equated with Unit 11 in Quadrat B. It comprised dark sandy loam with charcoal similar to Unit 8 but with largish sandstone rubble inclusions, especially near the surface of the Unit. It extended across Quadrat B beneath Units 8 and 11 and into the south-west corner of Quadrat A.

Unit 13

was another discrete unit comprising dark loam with alternating layers of dark sand. It was located beneath Unit 10 in the west side of Quadrat A, but contained less artefacts than the Unit above.

Unit 14

comprised dark sandy loam similar to Unit 12 above it but with brick inclusions replacing sandstone and charcoal. Rich in artefacts, this Unit was located in Quadrat B but extended into Quadrat A to meet the top of what proved to be a flagstone.

By this depth two structural units had been revealed. In the west wall of Quadrat B, extending into Quadrat A, was a dry sandstone wall of five courses (Unit 24, Fig.10) at the base of which were pavingstones (Unit 25, Fig.12). These structures were not related to the terraced cottage known as 32 Merriman Street but predated it.

Unit 15

comprised dark sand with some decayed sandstone, poor in artefacts, located beneath Unit 13 in Quadrat A. Similar material was located in Quadrat B in depressions in the bedrock but was not excavated.

Unit 16

was similar in composition to Unit 14 but including decayed sandstone, was a pocket extremely rich in artefacts which abutted and lay beneath the southern paving stone.

Below Units 14 and 16 was bedrock.

Upon completion of the excavation, sections were drawn of both east and west walls of the excavated area (Figs 9 and 10) and a photographic record taken (Figs 12 and 13).
Site 1, Area 2, Unit 9
12. Site 1, Area 2, from South

13. Site 1, Area 2, from West
3.4 Results of the excavation.

Without artefact analysis, this area was almost impossible to interpret. It was clear that the site had been filled, but the fill appeared to have occurred at different periods. The intervals between could have been years or days.

The upper units, archaeological and structural, posed few problems. The latest event to occur was the erection of the fence. The posthole (unit 2) extended 0.5 metres from the surface through a series of subsurface deposits but especially through the asphalt (Unit 21). Indeed, asphalt was located at the bottom of the posthole (Fig. 9). This could support the allegation that the fences are recent, though the extant fence may well be a replacement.

Before the present fence post had been erected, the yard had been asphalted (Unit 21). The asphalt lay on a deposit of mixed debris (Unit 1) which, although disturbed, covered the site and lay above two apparently related areas of brick paving (Units 22 and 23). Thus it would seem that the land was deliberately levelled before the asphalt was laid. The gap between the bricks and asphalt is clear in the drawn sections (Figs 9 and 10).

Although the two surviving segments of brick paving seemed to be the same structural feature, the whole of the excavated area may not have been paved. Although there was evidence of brick in the north of Quadrat A, insufficient bricks were found to account for a fully paved yard. In the north-west sector, Unit 4 was located at the same level as the brick paving to the south. However, since this unit extended under the bricks in the south sector, it must predate the paving.

Unit 3 was also located between and beneath the bricks. Hence it would seem that Units 3 and 4 were deposits of fill used to level the ground before the bricks were laid. Units 5 and 7 also fell into this category. Unit 5 was a thin layer of sand on which the bricks in the west side of the excavated area (Unit 22) had been laid. Unit 7 was compacted sandstone rubble found directly below the brick paving on the east side (Unit 23). Because of the disturbance of the connection between the two structural units, the reason for this change in foundation material could not be determined.

Units 6, 8 and 11 were, in parts, at almost the same depth from the surface. Unit 9, which was made up of heavy sandstone rubble found in the western side of Quadrat A, met Unit 11 on the east side, while Unit 12, found mostly in Quadrat B, was at the same distance from the surface as Unit 11. The difference between these stratigraphic units lay in the difference in their composition (see Appendix 8). Each comprised dark sandy loam but Unit 6 contained more brick and mortar, Unit 11
more sandstone rubble, Unit 12 sandstone discoloured by charcoal, while Unit 8, which at the time of the excavation was considered to be possibly the same material as Unit 12 apart from the sandstone rubble, had little rubble content. Only artefact analysis could determine whether or not there was any meaningful distinction between them.

These deposits were all at the same depth from the surface as Structural Unit 24, a sandstone wall located on the west side of the excavated area in Quadrat B which extended into Quadrat A. The heavy sandstone rubble which comprised Unit 9 was commensurate with the demolition (or decay) of the top of the wall in Quadrat A.

Unit 10 was a discrete deposit of dark loam, rich in artefacts, located adjacent to the west wall of Unit A. Both in appearance and content it seemed different from the surrounding Units. What that difference meant in interpretation of the site awaited artefact analysis.

Unit 13, which lay below Unit 10, was also discrete. The dark loam of Unit 10 continued, but was mixed with alternating layers of dark sand and the artefact content was low. These Units, too, were earmarked for the special attention of the analysis team.

Unit 15, which lay below Unit 13, was even poorer in artefact yield, only four items being recovered.

Units 10, 13 and 15 were also in line with the drystone wall though to the north of the visible structure. The later discovery of paving stones beneath these deposits must mean that these units were also fill deposits.

At a depth of 850mm. from the surface a marked change was encountered. The matrix of Unit 14 was similar to that of Unit 12 above, but the deposit was far richer in artefact yield, especially of domestic china and glass, than anything yet recovered. Due to the richness of the deposit and the visible presence of fish scales, all but the first 21kg. of material taken from the Unit was sieved for artefacts. The artefacts appeared to be earlier than those recovered from the Units above. Unit 14 proved to be level with a flagstone, one of three (Unit 25) which abutted the drystone wall. Beneath Unit 14, at the base of the southern flagstone and extending beneath it, was an even richer pocket of domestic debris (Unit 16). This Unit was also sieved for artefacts. Once again the interpretation of the deposits depended upon the analysis team.
3.5 Conclusion

From the excavation evidence, neither the dry sandstone wall nor the flagstones at its base (Units 24 and 25) had anything to do with the terrace of workers' cottages of which 32 Merriman Street was part. These structural units predated the house, but whether they were related to the 1850 buildings could not be determined. The bottom most archaeological unit, Unit 16, appeared to predate the structural units, though not by long. Located adjacent to and beneath the flagstones, this dump of domestic debris found in a natural depression in the bedrock, appeared to be levelling fill for the extant flagstone and possibly for another, since lost, to the south.

Unit 14, which lay in line with the surviving flagstones, must have been deposited after the stones ceased to be used. This Unit comprised material that was very different from anything found above. Clearly it predated the superimposed deposits, but by how long depended on qualitative artefact analysis.

The archaeological units between Unit 14 and the brick paving seemed to be all fill deposits, but their relationship to each other could be determined only by artefact analysis. It is to be noted that the natural rock face of Rhodens Lane has been built up by six courses of stonework (about 1.7 metres) at a point in line with the rear of 32 Merriman Street. This suggests that the fill units may be contemporary with the construction of Rhodens Lane in its present form.
8. SITE 2. 55 KENT ST.

8.1 History and description of the site.

Historic maps show that the front section of this site, the section nearest to Kent Street, was developed by 1833. The function of the building thus recorded is not known.

On the same site, between 1862 and 1865 (Tanner, 1987) was built a very different house from that in Merriman Street.

Of three stories, built of stone with a slate roof, this was one of a terrace of only two houses. Access to the rear was by a covered way between the two houses which allowed one of the two to extend, on the upper floors, across the covered way. The house thus extended was No. 55. This house was built for owner occupation, with the smaller of the houses providing an income.

The Kent Street house (Fig. 14) is over three times the size of 32 Merriman Street. Access, again from the street alignment, is into a passage leading to two large ground floor rooms and eventually to the kitchen, washhouse and lavatory which, built of brick with also with a slate roof, comprised, as with 32 Merriman Street, a separate structure. A two-tiered staircase with simple Georgian-style turned cedar handrail leads to a second passage on the first floor. Another room, of the same size as the rear ground floor room, opens off the passage, but the first floor front room is an elegantly proportioned drawing-room which extends north across the covered way.

Open cast iron balconies (since enclosed) complete the facade front and back (Fig. 14).

The stairway continues to the second floor where, within the roof which is partially concealed behind a parapet, are two 'attic rooms, the children's rooms, or, possibly, one for the maid, each with a dormer window.

Because street numbers in Kent Street changed several times during the last century, it is difficult to follow the history of occupation through Sands Directory. When the street numbers and residents' names settle down, we find one Michael Tissandier (or Teissandier), a Swede, in occupation. It was he, indeed, who, according to local history, built the house and it remained in the occupation of his family until the recent death of his daughter. In 55 Kent Street, therefore, we have an example of a house built for a gentleman of modest means, a history of continued occupation by a single family and thus the potential of yielding social data of a very different sort from the Merriman Street cottage.
8.2 The Excavation.

1. Introduction.

It had originally been envisaged that two sample areas would be excavated at 55 Kent Street, the first in the front room of the house, the site of the 1833 structure, the second in the kitchen at the rear. The second sample was intended to act as a test check of the data recovered from the prime sample. Events dictated a change in plan.

The excavation of Kent Street was not included in the approved cost estimate. Only if time or volunteer numbers permitted could the excavation proceed to a second site. Thus, initially, there was no site preparation in advance. Floor boards had not been removed, while both electricity and water had been disconnected.

The front room was lit only by a window overlooking Kent Street. The first floor balcony, which overhangs the street, permitted little natural light. Furthermore, the floor boards, apparently original, were sound. The kitchen, on the other hand, was reasonably well lit from a side window while the floor boards were thought to be rotten. The boards had not been inspected since they were covered by linoleum laid on masonite. When it was realized that a Kent Street sample could be included in the programme at no extra cost, the excavation team, working over a weekend when outside labour was not available, tried manually to prepare the site. With the use of two crowbars, the masonite and linoleum was taken up. The floorboards proved to be sound. It was the joists which had rotted and had been eaten away by termites. Thus it proved impossible without additional labour and machine tools to remove the boards. A few days later they were removed by labourers provided by the Department of Housing (Fig.15).

2. Aims of the excavation

Because the sample was limited to the kitchen, the aims of the excavation were limited to:

1. establishing construction details for comparison with those at Merriman Street, and

2. obtaining a statistical sample of artefacts over time for similar comparison.
Site 2, 55 Kent Street, Area 1, before excavation.
3. Excavation procedure.

In the light of experience gained in the excavation of the room at Merriman Street, it was decided to halve the size of the quadrats to allow a more precise distribution pattern to be discernible. Accordingly, the excavation area was laid out in quadrats of 1 x 0.5 metres, each identified alphabetically (A - G). The area chosen for excavation embraced both door and window (Fig.16).

As with Site 1, the archaeological deposits were assigned consecutive Unit numbers while the material recovered from each Unit was also weighed by Quadrat so that the proportionate yield of artefacts to deposit could be determined (Appendix 4). Similarly, fill analysis was undertaken for certain Units (Appendix 5).

Unit 1

was the dark, loose and dusty surface material which covered the site.

Unit 2

Located in Quadrats A and F but extending into C and E was orange sandy material with sandstone rubble (see Appendix 5).

Unit 3

was dark sandy material located in Quadrats A and G only. In Quadrat A it lay mainly adjacent to Unit 4 but towards the centre of the room. Thus little of this Unit is shown in that Quadrat in the drawn sections (Figs 17 and 18).
SITE 2, AREA 1

EAST SECTION

DOORWAY

BEDROCK

1. BRICK
2. SANDSTONE
3. MORTAR

(FOR UNIT DESCRIPTIONS SEE OVERLEAF)
SITE 2, AREA 1

DESCRIPTION OF UNITS

1. DARK, DUSTY SURFACE MATERIAL
2. ORANGE SANDY MATERIAL WITH SANDSTONE RUBBLE
3. DARK SANDY MATERIAL
4. DARK CLAY
5. PINK SANDY CLAY, DAMP, CONTAINING MUCH ROTTEN WOOD
6. DARK SANDY MATERIAL WITH SMALL SANDSTONE RUBBLE
7. BLACK COAL DUST
8. COMPACT LAYER OF SANDSTONE RUBBLE AND DECAYED SANDSTONE
9. SANDSTONE RUBBLE AND DECAYED SANDSTONE SIMILAR TO UNIT 8 BUT LOOSE PACKED AND DARKER
10. BROWN SAND
11. BROWN SAND WITH SMALL BRICK AND SANDSTONE RUBBLE
12. ORANGE SAND WITH SANDSTONE RUBBLE
13. DARK SAND WITH SANDSTONE RUBBLE AND DECAYED SANDSTONE.
SITE 2, AREA 1
SOUTH SECTION

SANDSTONE
MORTAR

(FOR PURPOSES OF SCALE, THE REST OF QUADRAT D HAS BEEN OMITTED)
Unit 4

dark, with clay inclusions, was located adjacent to Unit 3 in the south-east corner of Quadrat A but extended into B and C.

Unit 5

a damp, pinkish sandy clay containing much rotted timber, was located in Quadrats B and C but only on the north side. Accordingly this Unit does not appear on the drawn sections.

Unit 6

comprised sandy material with small sandstone rubble fragments. It was located only in Quadrats A and G. In G it extended from the face of the wall but in A it was found only to the west of Unit 7

Unit 7

comprising black coal dust, extended from Quadrat G through A, B, C and E. Concentrated in Quadrat B, it petered out in C and E.

Unit 8

was a compact layer of sandstone rubble and decayed sandstone located below Unit 2 in Quadrats D and F but with a slight extension into C and E. Since it was located north of the wall, it does not appear in section. A fill analysis was made for this Unit (Appendix 5).

Unit 9

was similar to Unit 8 but darker in colour.

Unit 10

comprised brown sand located beneath Unit 9 in Quadrat C and extending at the same level into Quadrats D and F

Unit 11

was made up of brown sand with small brick and sandstone inclusions. Similar to Unit 2 but moist and dark, it was located in Quadrat G below Unit 7 and extended into Quadrats A, B, C and E.

Unit 12

comprising sand with decayed sandstone, was located in Quadrats D and F but extended into C and E. Although excavated, it proved to be the natural material located
at the base of the A and top of the B Horizon. Artefacts were found only in the top few millimetres. Beneath this Unit was sterile sand.

Unit 13

located in Quadrat G but extending into A proved to be the same material though a little darker due to increased water content.

Beneath Unit 11 in the rest of Quadrat A and in Quadrat B was bedrock.

The structural units were not assigned Unit numbers because footings, foundations and walls were all one structure. Only the floor was a later replacement. That the floor had been renewed was clear from the amount of rotten timber, the debris from the earlier floor, located in the archaeological units below.

At the end of the excavation, Sections were drawn of the east and south faces of the excavated area (Figs 17 and 18) and a photographic record made (Figs 19 and 20).

4. Results of the excavation.

In Quadrats A and B, natural bedrock outcropping at this point, had been used as a foundation. Elsewhere sandstone footings had been laid directly on to the B Horizon, any weakness in that Horizon being made up for by the size of the stones used. Above the footings were two courses of even more massive mortared ashlar stones before the brickwork of the wall started. The bricks in the wall were drypressed and laid in Colonial bond.

After the footings were laid, possibly, in view of the accumulated overburden (Units 1, 3 and 6), at the time of renewal of the flooring, the east end of the sub-floor area had been deepened by the removal of the Horizon A/B interface which had been heaped in the western half of the excavation area. This accounts for the considerable deeper overburden in Quadrats D and F which levelled out in Quadrats C and E (Fig. 18). The interface removed from the east formed Unit 2 located only in the west of the excavated area which, in soil structure and composition was similar to Unit 12, the undisturbed interface below and to Unit 13, the interface remaining in Quadrats A and G.

The reason for this disturbance was to convert the western sector of the sub-floor space into a coal hole, evidenced by Unit 7 which was almost entirely made up of coal and coal dust. The hearths and grates which survive in the house evidence the need for coal. Access to the coal hole was by means of a trapdoor adjacent to the door which survived until removal of the floor to enable the
19. Site 2, Area 1 from East

20. Site 2, Area 1 from North
excavation. The location of the trapdoor is indicated by the two mortises cut to receive joists at a right angle to the main floor joists.

So far as socio-economic evidence was concerned, the excavation was disappointing. Little by way of domestic debris was recovered. That the original floor had been infested with termites was clear from the timber recovered. Exposed to damp, the boards had rotted, but the few which survived virtually intact evidenced that the flooring had been of tongue-and-groove. This method of construction prevents the penetration of domestic debris into the archaeological deposit other than for a few tiny items. Although excavation was careful and a number of small items were retrieved, much of the excavation area was in shadow, especially at depth, while time precluded sieving. What was noticeable was the number of rat bones recovered. Whether these were related to the 1900 outbreak of bubonic plague could not be determined, though rat bones were found in archaeological units in which late Victorian coins were also found.

The material recovered was subjected to statistical analysis.
9. THE SYDNEY UNIVERSITY CENTRE FOR HISTORICAL ARCHAEOLOGY'S ARTEFACT ANALYSIS DATABASE.

9.1 General.

This database is a modification of the MINARK Archaeological Database System. The MINARK System was first adapted by Andrew Wilson and Dianne Churchill for the Hyde Park Barracks project which was funded by a National Estate Grant. The system was further modified within the Sydney University Centre for Historical Archaeology to meet the requirements of the Regentville artefacts analysis programme. It is the product of many hours of discussion, development and evaluation by the artefact analysis team. The resultant database, which represents the first such use of computers in Australian Historical Archaeology, makes obsolete traditional forms of artefact inventory, cataloguing and description while making possible, for the first time, speedy analysis of mass produced 19th century artefacts.

9.2 The use of Computers

The most important structural limitation of traditional catalogues is that they assign the artefacts to discreet groups so that an artefact made of two different materials has to be assigned to one or other mutually exclusive category.

A second major problem is that traditional artefact categories are not logically consistent, so that artefacts are assigned to groups that are defined by a mixture of criteria including form, function, material and decoration. Thus 'clay tobacco pipes' are a separate category from 'ceramics', and metal buttons may be assigned to either the 'metal' category or the 'buttons' category, which contains buttons made from glass, jet, ivory, bone, wood, ceramics, textile and mixed media.

This process of assigning the artefacts to discrete categories both complicates and limits the types of analysis that can be carried out, because artefacts catalogued in one category are excluded from other categories that might be used to describe them.

One of the major advantages of the computerised database is that it avoids this problem completely. Artefacts are not placed in discrete categories; they are all entered on a single database as notional entities and then the different variables are used to describe their characteristics, such as archaeological provenance, raw material, function, weight etc.

In the database that has been set up the two crucial descriptive variables are material and function. All
artefacts are described using these two variables. To use
the examples referred to above, a clay tobacco pipe would
be described by the material variable as 'ceramic', and
by the function variable as 'tobacco pipe'. It could
therefore be retrieved by searches of the database asking
for 'ceramics'; and by searches asking for 'tobacco
pipes', whether they be of wood, ebony or clay, while a
search asking for both 'ceramic' and 'tobacco pipe' would
retrieve all clay tobacco pipes. Similarly buttons could
be retrieved as a functional group or in groups based on
material or any other characteristic used to describe
them in the database. Artefacts made of more than one
material can be described by all the materials and
retrieved by any of them.

9.3 The MINARK Database System

This database system has five types of variables. These
are:

Numeric Variable: which records values as whole or
decimal numbers. The values can be used to calculate
totals, means, standard deviations and so on.

Calendar Date Variable: which records dates, including
values for day, month and year if necessary. This can be
used for sorting based on chronology.

Text Variable: which records information in text form.
This is especially useful for detailed description and
information that cannot be reduced to a series of
possible options. Stored texts can be searched for key
words or phrases.

Nominal Variable: which record one or more of a series of
specified options. This is used where the description
can be reduced to a series of possible options.

Status Variable: which record the options 'yes' or 'no',
'true' or 'false', etc.

In the design of the database which follows, the type of
each variable is specified. Variables are normally
identified by a label of eight characters or less. These
labels are given for each variable. The database is a
record of all information common to every artefact
including the key identification, description, location
and quantification. In addition it records specific
characteristics of artefact types such as glass colour or
ceramic decoration.

Entry of the basic data for each artefact or group of
artefacts represents the initial step in the
construction of the database. The database can then be
used to provide a complete, accurate and consistent
inventory of the artefacts organised in any desired way.
When the database and inventory have been completed to this stage they can be used for distribution and quantitative analysis and to target and structure future detailed research and description of different artefact types. Variables which record more specialised information such as the date of manufacture, usually based on research rather than observation, can then be added to the system and the analysis can be further refined.

9.4 Identifiers

The following variables are used to record the prime archaeological location and identification of each artefact. Most searching and sorting of the database will begin with these identifier variables.

1. Database ID Number [variable label: A/NUM]
   This is the sequential identifying number automatically assigned to each artefact in the database. It can be used to identify individual artefact bags and to retrieve information about an individual artefact from the database.

2. Site Feature [variable label: UNIT]
   This numerical variable records the number of the feature from which the artefact was excavated.

3. Excavation Quadrat [variable label: QUAD]
   This nominal variable records the grid reference of the one-metre square from which the artefact was excavated.

4. Artefact Bag Number [variable label: BAGNUM]
   This numerical variable records the number of the artefact bag in which the artefact or group of identical artefacts is stored.

5. Material of Artefact [variable label: MATERIAL]
   This nominal variable records the material or materials from which the artefact is made. The material is selected from one of the following options:

   5.1 COARSE EARTHENWARE
       Includes all unrefined red earthenware with coarse inclusions such as bricks.

   5.2 RED EARTHENWARE
       Includes all unrefined red earthenware without coarse inclusions such as garden pots and roof tiles.

   5.3 FINE EARTHENWARE
       Includes all refined grey/white earthenware such as those used for transfer printed tableware.
5.4 COARSE STONEWARE
Includes all unrefined stoneware such as those used for drain pipes.

5.5 FINE STONEWARE
Includes all refined grey/white stoneware such as those used for stout and ginger beer bottles.

5.6 VITREOUS STONEWARE
Includes all refined grey/white stoneware such as those used for transfer printed tableware.

5.7 PORCELAIN
Includes all varieties of European porcelain that are translucent such as those used for tableware.

5.8 ORIENTAL PORCELAIN
Includes all varieties of oriental porcelain such as those used for Chinese armorial and export wares.

5.9 PIPE (KAOLIN)
Includes kaolin based white pipe clays without ball clay inclusions such as those used for clay smoking pipes.

5.10 GLASS
Includes all glass.

5.11 FERROUS METAL
Includes all ferrous metals (iron and its alloys). Ferrous metal rusts when exposed to moisture and air giving a reddish colour. Ferrous metals are magnetic to some extent depending on the presence or absence of non-ferrous plating and the degree of rust. Rust may become very thick and obscure the form of the artefact. Often successive layers of rust are attached to the artefact. Nails are the most common artefact made of ferrous metal. The form of the nail may be evident but precise shaping indeterminable.

5.12 COPPER
Includes all alloys of copper, such as brass and bronze. Copper is a reddish (orange/brown) metal which is fairly malleable, non-magnetic and has a characteristic blue/green oxidisation.

5.13 LEAD
Lead is a very heavy soft metal whitish-grey in colour, non-magnetic and easily
melted. Lead is often found in the form of molten lumps so that its function cannot be determined.

5.14 ALUMINIUM
White (silver/grey) metal which is extremely light, malleable, non-magnetic, and resistant to oxidation. Aluminium is not common before the 20th century.

5.15 PAPER
Includes all types of wood pulp products such as cardboard.

5.16 LEATHER
Includes all types of artefacts made from animal skin.

5.17 SHELL
Includes all types of animal shell whole or fragmented worked or unworked. Shell is often found in the form of small burnt fragments. Burnt shell is white and chalk like in appearance and can have a blue/grey core.

5.18 IVORY
Includes fine worked bone, vegetable ivory and all forms of true ivory. Ivory is most commonly found in the form of buttons, combs and similar small items.

5.19 BONE
Frequently has a honeycombed texture inside. It may be worked (e.g. buttons). To distinguish worked bone from synthetic materials the surface should be examined with a magnifying glass. Bone will have a distinctive circular grain. Bone may be butchered and would show evidence of butchery such as a clean cut end or incised marks. Bone may also be burnt when it becomes white with sometimes a grey interior.

5.20 WOOD
Most often buried wood appears black and crumbly and may show signs of a wood grain.

5.21 SEED
Includes fruit stones and nut shells.

5.22 MARBLE
Includes all types of marble.

5.23 SLAG
Unidentifiable lumps of molten material.
5.24 PLASTER
Includes both plaster and mortar which has the 'set' or finishing coat. This normally has a flat surface and is whiter in colour than mortar. The plaster surface may be painted or coloured.

5.25 MORTAR
Includes all mortar without an attached skin of plaster. May be coarse to powdery in texture and of varying thickness. Usually contains inclusions such as shell fragments. Can be scratched or broken with the fingernail.

5.26 FLINT
Includes all forms of flint. It is a hard shiny stone and is usually found in a manufactured form, most commonly a gun flint.

5.27 SLATE
Includes all metamorphic forms of shale. It is a grey/purple stone with a strong parallel grain and is usually found as a thin sheet.

5.28 COAL
Not charcoal. Hard black shiny substance used for domestic heating and manufacturing. It is hard and does not crumble. It should retain its characteristic smell.

5.29 SYNTHETIC
Includes all forms of synthetic material - e.g plastic, bakelite, linoleum.

5.30 FIBRE
Includes all artefacts made from fibres.

5.31 ZINC

5.32 CLINKER
Burnt coal, very light.

6. Function of Artefact [variable label: FUNCTION]
This nominal variable records the broad function group of the artefact, if known. The function group is selected from one of the following options:

6.1 UNIDENTIFIABLE (UN-IDABLE)
To be used where the function of the artefact cannot be determined.
6.2 UNIDENTIFIED (UN-IDFIED)
To be used where the function of the artefact cannot be determined immediately, but may be identified in an alternative analysis and/or by an expert in the appropriate field.

6.3 OTHER CULTURAL
Not household equipment. Miscellaneous.

6.4 AGRICULTURAL/PASTORAL (AG/PAST)
Relating to agricultural and/or pastoral activity. e.g. plough parts.

6.5 CLERICAL/EDUCATION
Relating to clerical or educational activities. e.g. inkwells, pen nibs, slate boards, slate pencils.

6.6 PERSONAL
Direct association with the body. e.g. clothing, personal adornments (e.g. hair clips, brooches), beads, buttons.

6.7 CRAFT/TRADE
Tools or equipment used in any craft or trade, e.g. blacksmithing equipment, mining equipment.

6.8 FOOD
Remains of consumed food. e.g. fruit stones, butchered bone, non-building material shell.

6.9 ORGANIC NON-FOOD (ORG NON-FOOD)
Organic remains (especially bone) which show no clear evidence of use as food. e.g. bones without butchering marks, rat bones. Of necessity is category will include many artefacts that were used for food but show no evidence of it.

6.10 TABLEWARE
Items used for food and drink when serving, eating and drinking. The majority of tableware items will most probably be fine earthenware and vitreous stoneware. Decorated glass bottles (such as vinegar and salad oil) intended for table use are included.

6.11 KITCHENWARE
Items used in the preparation and/or storage of food and/or drink. Kitchenware will include most glass and ceramic bottles.
6.12 HOUSEHOLD
Decorative and utilitarian items found throughout the house. e.g. lamps, vases. This will include all household material not assigned to tableware or kitchenware.

6.13 ARCHITECTURAL/STRUCTURAL (A/STRUCT)
Building material which forms a core part of a building the removal of any part of which would constitute a major interruption to habitation. It includes bricks (including glazed bricks), mortar, shell, tiles, shingles, sheet roofing iron, nails and plaster.

6.14 ARCHITECTURAL/NON-STRUCTURAL (A/NON-STRUCT)
Building material which does not form a core part of a building. Items will often be decorative or commonly replaced. Includes window glass, decorative brass, window hinges, keys and wire.

6.15 TRANSPORT
Items relating to transportation of people and produce e.g. carriage, car and lorry parts.

6.16 PHARMACEUTICAL (PHARMACEUT)
Items regarded as useful in maintaining health and treating illness e.g. medicine and elixir bottles.

6.17 INDUSTRIAL (INDUST)
Items relating to heavy industry as distinct from craft or trade.

Quantification Variables

In order to quantify artefacts of different types, different quantitative measures have to be used to make valid comparisons between groups of artefacts and areas of deposition. A number of different variables are used to record information related to the quantification of artefacts.

7. Number of items [variable label: NUHITMS]
This numerical variable records the number of items in each artefact bag.

8. Weight of the Artefact [variable label: A/WGHT]
This numerical variable is used to record the weight of artefacts in grammes.
Because of variations in size and fabric, total number counts are not an adequate means of quantifying artefacts such as ceramics, glass and metal. These artefacts are also weighed.

9. Average Weight  [variable label: A/AVWGHT]
This figure is an item size indicator expressed in terms of weight. It is calculated automatically by the program by dividing the total weight of the items in an artefact bag by the number of items in that bag.

10. Inscription  [variable name: A/INSCP\[n\]]
This text variable records a complete transcription of all inscriptions on the artefact.

The following symbols are used in the transcriptions:
/ indicates change of line
: indicates incomplete word
? indicates unreadable character

Descriptive Variables

In order to describe artefacts of different types, different sets of descriptive terms have to be used to provide adequate information about different groups of artefacts. When describing artefacts the appropriate variable is selected from those listed below.

11. Note  [variable label: NOTE]
This text string variable is used to record any pertinent information about the artefact not covered by the other descriptive variables. This information is used to identify quickly artefacts that are unusual or of potential importance.

12. Vessel Function  [variable label: F/VESSEL]
This nominal variable records the function of the artefact if this can be determined quickly from its appearance. As with variable 5, the broad function category, provision is made to record 'unidentifiable' and 'unidentified' objects with a view to eliminating the former from areas of future research while allowing the latter to be recovered quickly in order that further research can be undertaken.

13. Architectural Function  [variable label: F/ARCHIT]
This nominal variable records specific types of architectural function and, in effect, is limited to metal and glass. The options available are:
13.1 UN-IDABLE
13.2 UN-IDFIED
13.3 NAIL
13.4 KEY
13.5 SCREW
13.6 SPIKE
13.7 WASHER
13.8 HINGE
13.9 DOOR LOCK
13.10 WIRE
13.11 ROOF IRON
13.12 BOLT
13.13 WINDOW

14. Ceramic Decoration
   [variable name: CERAMDEC]
   This nominal variable records the decoration (surface appearance) of ceramic artefacts. The decoration is recorded by choosing one of the following options:

14.1 UNADORNED WHITE
    Plain, white, smooth, unadorned.

14.2 UNADORNED WHITE GILD
    Gold is added as a band or design.

14.3 WHITE/WHITE EMBOSSED
    White embossing on plain white.

14.4 BLUE TPW
    Transfer printed ware with the design in blue. This type of ceramic decoration is most common.

14.5 AMETHYST TPW
    Transfer printed ware with the design in amethyst.

14.6 BROWN TPW
    Transfer printed ware with the design in brown.

14.7 DARK GREY TPW
    Not black. Transfer printed ware with the design in dark grey.

14.8 BLACK TPW
    Not dark grey. Transfer printed ware with the design in black.

14.9 GREY-BLUE TPW
    Not blue. Transfer printed ware with the design in grey-blue.

14.10 PINK AND BROWN TPW
    Transfer printed ware printed in two colours of pink and brown.

14.11 GREEN TPW
    Includes all transfer printed ware with the design printed in green.
14.12 HANDPAINTED
Not transfer printed ware. Design is handpainted.

14.13 HANDPAINTED TRANSFER PRINTED WARE.
Transfer printed ware that has part of the design filled with handpainting in one or more colours.

14.14 H/PAINT+GILT
Design is handpainted and has gilding added.

14.15 HANDPAINTED TPW
Transfer printed ware that has part of the design filled with handpainting in one or more colours.

14.16 H/PNT+GILT+EMBOS TPW
Transfer printed ware that has part of the design filled with handpainting in one or more colours to which gold has been added.

14.17 H/PAINT+GILT+EMBOSS.
Embossing in addition to handpainting and gilding.

14.18 COLOURED EMBossING
Embossing is not white but coloured.

14.19 BANDED
Colour either monochrome or polychrome is applied around rim or body.

14.20 SWIRLED
Colour has been applied in a swirled design in monochrome or polychrome.

14.21 SWIRLED AND BANDED
Rim is banded and body swirled.

14.22 INCISED
Design made all or in part by incising. It may be coloured or left with the overall body glaze.

14.23 INCISED+BANDED
Combination of incised decoration plus banding.

14.24 FLOW BLUE
Blue transfer print that has a fuzzy, smudged appearance.

14.25 MARBLED
Not swirled. Colour is grey toned and attempts to simulate marble.
14.26 TWO TONE
One colour inside, another outside.

14.27 CELADON
Specifically celadon blue/green.

14.28 GLAZED
Some form of glazing is apparent but its precise nature is indeterminable due to size and surface condition of the item e.g. glazed pieces of brick or tile.

14.30 SALT GLAZED

14.31 BRISTOL

14.32 ROCKINGHAM

14.33 MAJOLICA

14.34 CANE

14.35 LUSTRE WARE

14.36 SOLID POLYCHROME
No pattern. Not banded. Glaze in two or more colours e.g: upper part of vessel in one colour and lower part of vessel in another.

14.30 UNGLAZED
No applied glaze. Colour results from the colour of the fired clay only.

The list can be expanded as the need arises/

15. Glass Colour [variable name: GLASSCOL]
This nominal variable records the colour of glass artefacts by comparison with the laboratory reference collection. Choice is made from the following options:

15.1 UNIDENTIFIABLE
Glass has been burned or maybe opalised beyond recognition.

15.2 UNIDENTIFIED
May need alternative analysis and/or an expert to identify e.g purple glass versus solarized clear glass which has become mauve.
15.3 CLEAR
Completely colourless. Requires silica almost free of iron a flux and a stabiliser without noticeable impurities. Manganese was used as a decolourizer c1890-1916 and gives a purplish tint on prolonged exposure to ultraviolet light. Post 1916 selenium became the most common decolourizer.

15.4 OLIVE GREEN
Includes the range from light to dark olive. Compare with laboratory reference specimens over light box. Olive glass commonly contains ferrous oxide. Commonly used for beers and wines.

15.5 GREEN TINT
Ostensibly clear glass containing impurities. Will be noticeably green in section.

15.6 EMERALD GREEN
Not olive or green tint. Bright green and contains copper oxide e.g. modern wine bottles.

15.7 BROWN
Includes dark to light brown and amber. Brown glass contains carbon e.g. beer bottles.

15.8 WHITE
Opaque white or "milk" glass. Contains tin or zinc oxide e.g. tablewares, lighting devices, lid liners of Mason jars, old Vegemite jars.

15.9 BLUE
Bright cobalt blue used late 18th and early 19th century for tableware such as salt dishes and decanters, medicine and cosmetic containers.

15.10 TURQUOISE
Bright turquoise. Not aqua.

15.11 RED
Includes maroon. Includes red glass made with gold and red glass made with copper oxide and reheated selenium.

15.12 PINK
Not red.

15.13 YELLOW
Does not include amber. Contains chromium, sulphur, silver oxide or charred horn.
15.14 PALE YELLOW/PINK
Not distinctly yellow. Solarized glass cleared with selenium. Included here for dating purposes.

15.15 PURPLE
Not cobalt blue. Includes mauve and lavender. Contains nickel oxide.

15.16 BLACK
Not dark olive or dark amber. Includes only truly black glass. High in iron, manganese, carbon and sometimes cobalt. Often found in the form of personal items.

15.17 MULTICOLOURED
Where more than two colours are discernible in the one piece.

16. Animal Source [variable name: BONE/AML]
This nominal variable records the animal from which the bone came, if known. The available options are:

16.1 UNIDENTIFIABLE
16.2 UNIDENTIFIED
16.3 COW
16.4 PIG
16.5 SHEEP
16.6 CAT
16.7 FISH
16.8 WALLABY
16.9 BIRD
16.10 POSSUM
16.11 RAT

17. Bone Type [variable name: BONE/TYP]
This nominal variable records the type of bone, if known. The available options are:

17.1 UNIDENTIFIABLE
17.2 UNIDENTIFIED
17.3 CARPAL
17.4 TARSAL
17.5 CARPAL/TARSAL
17.6 VERTABRA
17.7 MANDIBLE
17.8 FEMUR
17.9 ULNA
17.10 FIBULA
17.11 TOOTH

18. Bone Modification [variable name: BONE/MOD]
This nominal variable records any modification made to the bone. Available options are:
18.1 UNIDENTIFIABLE
LIST OF VARIABLES
The following is a quick reference list of the variables used in the database. The variable labels are listed alphabetically with the type of each variable and its number in the database structure outlined above:

1. [A/NUM] Database ID Number Numerical
2. [UNIT] Stratigraphic Unit Numerical
3. [QUAD] Function of the Artefact Nominal
4. [BAGNUM] Artefact Bag Number Numerical
5. [MATERIAL] Material of the Artefact Nominal
6. [FUNCTION] Function of the Artefact Nominal
7. [ITEMS] Number of items in bag Numerical
9. [AV WGT] Average weight of items Numerical
10. [INSCRIP] Inscription on the Artefact Text
11. [NOTE] Notes on the Artefact Text
12. [F/VESSEL] Vessel Function Nominal
13. [F/ARCHIT] Architectural Function Nominal
14. [CERAMDEC] Ceramic Decoration Nominal
15. [GLASSCOL] Glass Colour Nominal
17. [BONE/TYP] Type of Bone Nominal
18. [BONE/INV] Bone Modification Nominal
19. [SHELL/TYP] Shell species Nominal

In conclusion, two points should be made:

1. The list of available options is not closed. Each variable can be expanded to include additional options as the need arises.

2. The system allows preliminary sorting and data entry by the most inexperienced student. The sort and data entry can be refined by retrieval of 'unidentified' items.
10. THE MILLERS POINT COMPUTER DATABASE

As part of the recommendations made in the Archaeological Master Strategy for Millers Point Site 8900 was the following:

That the data produced as a result of this study be entered into a computer programmed both to pinpoint sites of exceptional archaeological sensitivity both in historic and soci-economic terms and to assess that sensitivity relative to other sites within Millers Point Site 8900. By this means predictions can be made and decisions reached as to the action to be taken with regard to any individual site and the Urban Renewal Programme tailored accordingly.

As stated in that report, it was then anticipated that such a programme would form part of the then study and, indeed, an outline programme was formulated. Since such a database would be of more importance to the Department of Housing's Urban Renewal Group which had the task of determining overall strategy than to any individual consultant, means were sought to incorporate the programme into the Urban Renewal Group's processor. This proved to be impossible and the envisaged programme fell into abeyance.

A further recommendation made in the Archaeological Master Strategy was that excavation and resultant analysis be done in conjunction with the Sydney University Centre for Historical Archaeology, one of the reasons being that processing and analysis of artefacts could be achieved within the Centre's established computer programme for data analysis.

Whilst the computer programme envisaged in 1987 was considered to be outside the restraints imposed on the 1988 archaeological programme, a limited computer programme has been established to cope with the archaeological data generated by this investigation or by any future archaeological investigation in Millers Point, and this had been achieved within budgetary requirements. The programme, of necessity, is limited to archaeological data. It does not provide for relative assessment across site and time of building types or occupational differences, but it does allow for any site investigated by archaeological methods to be compared with any other and, in addition, for any archaeological unit to be compared with any other both inter and intra-site. This has been achieved:

1. by adding to the established database (developed originally for a single site) a site number (32 Merriman Street being Site 1)
2. by adding to the established database (developed for a single excavation area) an area code number (for 32 Merriman Street, two areas were excavated Originally called A and B, they were renumbered for the computer programme 1 and 2 - numerical variables)

3. By transposition of the archaeological Unit to a position of priority over the Quadrat number (which is determined arbitrarily according to the area available for excavation)

4. By adding a sequential database number to each archaeological Unit so that each Unit has a number independent of site and stratigraphy which can be called out and compared with any other archaeological Unit regardless of site or stratigraphy.

Given the financial restraints which limited sample excavation to 1.5 sites, the potential of this programme is yet to be realised. Suffice it to say that the programme has been established, that it will be applicable to any site within Millers Point Site 8900 which may be subjected to archaeological investigation in the future, and that the results must be cumulative. As more data is generated, more valid deductions can be achieved both across space, time, occupation and social strata.
11. ARTEFACT ANALYSIS METHODOLOGY.

The computer database established for artefact analysis records first the Site, Area and Stratigraphic Unit from which the artefact was recovered. Thus the analysis programme is not independent of the excavation. It is based on the observations made by the archaeologist in the field as to the changes in the stratigraphic deposits. It cannot break down those deposits into smaller stratigraphic units but it is capable of grouping them. Thus a stratigraphic unit may be assigned a new Unit Number because of an apparent change in soil composition when the type of artefacts recovered proves not to have changed - indeed, fragments of a single artefact are found in more than one stratigraphic unit. Whilst the excavator must take note of any change lest it prove meaningful, the computer provides a means whereby to interpret that observation against the total deposit so as to extract the meaning if any.

The artefact analysis computer database allows for statistical analysis and comparison according to a number of variables. The most useful for interpretation of stratigraphic units has proved to be the Functional variable. This has the limitation of increasing the percentage of 'unidentified' or 'unidentifiable' items since, although the material of an artefact may be easily identified (ferrous metal, for example), its precise function cannot be determined (ferrous metal explodes into unidentifiable lumps of rusted metal). Statistical comparison by number exaggerates the problem since it is the numerous tiny fragments recovered in the course of excavation to which no clear function can be assigned. A small fragment of curved glass, for example, could be from a bottle (storage and therefore 'Kitchenware') a decanter ('Tableware') or a vase ('Household'). Since the fragment cannot with certainty be assigned to any one of these Functional categories, it remains 'Unidentified' or 'Unidentifiable'. It is for this reason that statistical frequency is better assessed on the basis of weight than of number, though within each functional category the two should be available for comparison.

Both quantitative variables, weight and number, still remain misleading to the unwary. Again ferrous metal, which falls most commonly into the Functional variable of Architectural/Structural, is the cause of the problem. Not only is it heavier than other material but, usually
found in the form of nail fragments, it appears also in large quantity. Window glass (Architectural/Non-Structural) can also distort percentage frequency. Until changing technology enabled the mass production of rolled glass, window glass was extremely thin (about 1mm.) and therefore light, but shattered into numerous tiny fragments. Being flat, their function is easily identified. For these reasons, the two Architectural classifications normally exceed all others both on weight and number. However, when anomalies occur or appear to occur within weight/number percentage frequency based on Function, the Material classification is available.
12. RESULTS OF THE ARTEFACT ANALYSIS.

12.1 Site 1, 32 Merriman Street.
Area 1.

This area was below the floor boards in the front room of the house. For statistical purposes, only three Units were analysed: Units 1, 2 and 3 (for description of Units, see Appendix 6). The material recovered from each was broken down into percentage figures by weight and number according to its Functional categories (see Appendix 7). These were then grouped into three broad categories of Unidentified (or Unidentifiable), Architectural (Structural and Non-Structural) and Domestic.

FUNCTIONAL CATEGORIES
WEIGHT/NUMBER FREQUENCY PERCENTAGES

<table>
<thead>
<tr>
<th></th>
<th>Weight</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 1 (Database No.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unidentified</td>
<td>1.1</td>
<td>3.6</td>
</tr>
<tr>
<td>Architectural</td>
<td>97.3</td>
<td>90.7</td>
</tr>
<tr>
<td>Domestic</td>
<td>1.6</td>
<td>5.7</td>
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<tr>
<td></td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Unit 2 (DBNUM 2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unidentified</td>
<td>8.1</td>
<td>15.9</td>
</tr>
<tr>
<td>Architectural</td>
<td>87.5</td>
<td>69.8</td>
</tr>
<tr>
<td>Domestic</td>
<td>4.4</td>
<td>14.3</td>
</tr>
<tr>
<td></td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Unit 3 (DBNUM 3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unidentified</td>
<td>0.3</td>
<td>4.4</td>
</tr>
<tr>
<td>Architectural</td>
<td>92.0</td>
<td>87.6</td>
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<tr>
<td>Domestic</td>
<td>7.7</td>
<td>8.0</td>
</tr>
<tr>
<td></td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

These figures make it clear that a statistical sample of domestic debris was not recovered.

The few domestic artefacts found comprised transfer-printed tableware (5 items), other ceramic tableware (3 items), bottle glass (9 items), 3 buttons, a hair clip and a piece of clay pipe stem.

It had been hoped that further information would be provided by the material provided from 30 Merriman Street, but again the sample proved too small for statistical use. The domestic debris again comprised tableware (6 items of assorted decoration) a glass marble, a sardine-tin key, a corkscrew, a crown seal, 3 mother-of-pearl buttons, part of a comb and the ink cartridge of a black plastic pen. It will be seen that the material was of mixed date with much of it clearly
Accordingly it provides little socio-economic data applicable to a 19th century worker's cottage.

12.2 Site 1, 32 Merriman Street.
Area 2.

According to the excavation evidence, this area comprised a series of units of fill some of which appeared to be deliberate, aimed at levelling the site and possibly contemporary, others comprising discrete units within or between layers of fill, while, at the bottom of the excavated area there was a marked change. The aim of the statistical analysis was to determine, if possible, which units were contemporary, which were fill for levelling and where and when the change occurred.

The first statistical analysis to be made, therefore, was to break the artefact composition of each stratigraphic Unit (regardless of Quadrat) into its Functional categories by weight and number (see Appendix 9). These were then grouped into three major classes: Unidentified (or Unidentifiable), Architectural (Structural and Non-Structural) and Domestic:

<table>
<thead>
<tr>
<th>FUNCTIONAL CATEGORIES.</th>
<th>Weight</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 1 (Database No.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unidentified &amp; unidentifiable</td>
<td>8.0</td>
<td>17.7</td>
</tr>
<tr>
<td>Architectural (Structural &amp;</td>
<td>82.1</td>
<td>56.3</td>
</tr>
<tr>
<td>Non-Structural)</td>
<td>9.9</td>
<td>26.0</td>
</tr>
<tr>
<td>Domestic</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

| Unit 2 (DBNUM 7)               |        |        |
| Unidentified                   | 3.4    | 23.1   |
| Architectural                  | 71.0   | 53.9   |
| Domestic                       | 25.6   | 23.0   |
|                                | 100.0  | 100.0  |

| Unit 3 (DBNUM 8)               |        |        |
| Unidentified                   | 1.4    | 4.8    |
| Architectural                  | 74.7   | 43.5   |
| Domestic                       | 23.9   | 51.7   |
|                                | 100.0  | 100.0  |

<p>| Unit 4 (DBNUM 9)               |        |        |
| Unidentified                   | 5.1    | 19.6   |
| Architectural                  | 82.9   | 57.3   |
| Domestic                       | 12.0   | 23.1   |
|                                | 100.0  | 100.0  |</p>
<table>
<thead>
<tr>
<th>Unit</th>
<th>DBNUM</th>
<th>Unidentified</th>
<th>Architectural</th>
<th>Domestic</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>10</td>
<td>96.0</td>
<td>4.0</td>
<td>0.0</td>
</tr>
<tr>
<td>6</td>
<td>11</td>
<td>5.4</td>
<td>81.6</td>
<td>13.0</td>
</tr>
<tr>
<td>7</td>
<td>12</td>
<td>0.0</td>
<td>98.1</td>
<td>1.9</td>
</tr>
<tr>
<td>8</td>
<td>13</td>
<td>49.4</td>
<td>22.2</td>
<td>28.4</td>
</tr>
<tr>
<td>9</td>
<td>14</td>
<td>34.3</td>
<td>60.0</td>
<td>5.7</td>
</tr>
<tr>
<td>10</td>
<td>15</td>
<td>33.9</td>
<td>49.4</td>
<td>16.7</td>
</tr>
<tr>
<td>11</td>
<td>16</td>
<td>7.3</td>
<td>66.2</td>
<td>26.5</td>
</tr>
<tr>
<td>12</td>
<td>17</td>
<td>8.6</td>
<td>61.0</td>
<td>30.4</td>
</tr>
</tbody>
</table>
For purposes of site interpretation, some of these units can be eliminated. Unit 2, fill from a posthole which extended 0.5 metres into sub-surface deposits and was packed with brick and sandstone, cannot be indicative of any other deposit.

Unit 5, sand laid as a foundation, contained man-made items which were so small that 96% on weight, 75% on number, were 'Unidentified' or 'Unidentifiable', leaving only three Material/Functional artefact categories which could be identified.

Unit 7 was another discrete Unit. Only four artefacts (2 fragments of charcoal, one of brick and one of window glass) were recovered from Unit 15, insufficient to comprise a statistical sample. It, too, must be eliminated.

Units 6, 8, 11 and 12 had posed problems for the excavation team. On the basis of artefacts, the difference between them can be expressed in the form of a bar chart:

<table>
<thead>
<tr>
<th>Unit</th>
<th>DBNUM</th>
<th>Unidentified</th>
<th>Architectural</th>
<th>Domestic</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>18</td>
<td>12.7</td>
<td>20.7</td>
<td>62.1</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>44.8</td>
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<td></td>
<td>25.2</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>34.5</td>
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<td>100.0</td>
</tr>
<tr>
<td>14</td>
<td>19</td>
<td>8.4</td>
<td>19.4</td>
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<td></td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>20</td>
<td>0.0</td>
<td>0.0</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>20</td>
<td>6.4</td>
<td>28.3</td>
<td></td>
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<tr>
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<td></td>
</tr>
</tbody>
</table>
It can be seen immediately that Units 11 and 12 are almost identical in artefact content. Unit 6 stands out as different by reason of its high architectural content while the function of almost 50% of the material from Unit 8 could not be identified on the basis of Function.
For the latter Unit, recourse was made to the Material category which indicated that 5/6 of the functionally unidentified items were ferrous metal and probably therefore nail fragments classified as Architectural. On this basis, the Architectural content of this Unit rises from 22.2% to over 63% equating it with Units 11 and 12. Further examination of the Material content of the Unit 6 finds shows that a high proportion of its Architectural content comprised fragments brick. It can be seen from both sectional drawings (Figs 9 and 10) that brick was left in both east and west walls at the same level as this stratigraphic Unit. Thus the apparent difference of Unit 6 is also removed. All four Units must be treated as having little distinction for the purpose of site interpretation. They are probably the result only of different dray loads.

The next problem for artefact interpretation was the possible date of the deposits. Little qualitative analysis has been undertaken on the material recovered. However, Unit 12 contained the base of a bottle (1/2 A[12][12] RecID No.484, Fig.21) which, by its mould mark can be dated to 14 February, 1853. While for want of data, little work has been done in Australia on deposition lag, American research suggests an average of 10 - 15 years for bottles on an urban site. On this basis, the bottle was deposited in 1863-8, making it contemporary with 32 Merriman Street.

Unit 10 also posed problems for the excavation team. In percentage terms, both architectural and domestic content had dropped, the reason being that again the function of almost 50% of the items recovered could not be identified. Again, the Material classification reveals that, with the exception of 3.6 grammes of bone, the unidentified material was ferrous metal (430.5 grammes). Thus once again there is no fundamental difference between it and the surrounding fill Units.

Analysis of the artefacts recovered from Unit 13 validated the observations of the excavators that the artefact yield was low. In percentage terms it is, however, almost identical to Units 9, 11 and 12. Thus there seemed no reason to set it apart from the other fill units.

Units 14 and 16 were drawn to the particular attention of the analysis team. The observation of the excavators that these Units were entirely different from all others was supported. Again the Functional categories of the artefact content of these Units can be expressed in the form of a bar chart:
In both Units the percentages of Domestic and Architectural items are reversed while of the household material which fell within the Domestic category coal and clinker, the result of domestic fires, which had been found in all previous Units had reduced considerably. The bulk of the domestic material was glass (Figs 22 and 23) and ceramic (Figs 24-27). The ceramics were of high quality and for some a tentative date can be provided.

In Unit 14, part of a blue transfer-printed plate with a design entitled 'Spanish Convent' (1/2B[14]19RefID642, Fig.28) had as part of the base mark DAN---O. If this refers to H & R Daniel or H. Daniel & Sons of Stoke on Trent, a firm specializing in fine pottery and porcelain, then the plate dates to 1820-1841, the date of the pottery. The mean date would be 1830. Of less quality but possibly greater interest was a Coopers Gooseberry Jam jar (1/2B[14]126RefID559, Fig.29) and a saltglazed bottle (1/2B[14]127RefID660, Fig.30), the latter manufactured at the Denby and Codnor Park Potteries, Derbyshire. This pottery dates from 1833-1850. While a mean date of c.1841 makes it somewhat late on the basis of American calculations of deposition lag, cheap, saltglazed stoneware jars and bottles were not items to
   (1/2(14)16, Ref.ID649)

25. Blue transfer-printed bowl from Unit 14
   (1/2B(14)8, Ref.ID641)
(1/2A(14)31, RefID589)

27. Green transfer-printed and hand-painted saucer from Unit 14 (1/2A(14)58, RefID616)
Blue transfer-printed plate from Unit 14. (1/2B(14)9, RefID642)
29. Saltglazed stoneware jar from Unit 14.
(1/2B(14)26, Ref.ID659)

30. Saltglazed stoneware bottle from Unit 14.
(1/2B14(27,RefID660)
be treasured. They are likely to have been discarded quickly. The dates suggest that Unit 14 predates 32 Merriman Street. Confirmation of the date could doubtless be supplied by expert dating of a Davenport cup (Fig.31). Unfortunately for the dating of this deposit, Davenport produced a number of similar designs between 1820 and 1860.

Indicative of the range and quality of the ceramics is an embossed porcelain saucer with fine hand-painting in gilt and a fragment ornately painted in six colours (Figs 32 and 33).

Personal items were also recovered from this unit. They included buttons and clay pipes (Figs 34 and 35).

More qualitative analysis is required for the artefacts recovered from Unit 16. A stoneware Dutch gin bottle (Site 1/2A[16][17]RefID719, Fig.36) could probably be dated by the manufacturer's mark though there is little available reference material on Dutch ceramics written in English. Of the English ceramics, one (Site 1/2A[16][4]RefID706, Fig.37) bore part of a base mark reading 'PHILLIPS VERONA'. While there were a number of Phillips making ceramics in 19th century England, the most likely contenders appear to be Edward & George Phillips of Longport, Staffordshire. If this is correct, the bowl dates to 1822-34, providing a mean date of 1828. Allowing for the deposition lag, this dates the deposit to 1838-43, predating the 1850 buildings recorded as having been on the site. The quality of the ceramics found in Unit 16 is indicated by a black basaltes caneware teapot lid (Fig.38) (References from Godden, Geoffrey A., Encyclopaedia of British Pottery and Porcelain Marks, London, 1964).

12.3 Site 2, 55 Kent Street.
   Area 1.

Only four stratigraphic units were selected for statistical analysis, Units 1, 2, 3 and 7 (for description of Units, see Appendix 10). As with the other Units, the material recovered was broken down into percentage figures according to weight and number based on Function (Appendix 11). Similarly these were then grouped into three broad categories.

<table>
<thead>
<tr>
<th>FUNCTIONAL CATEGORIES</th>
<th>WEIGHT/NUMBER FREQUENCY PERCENTAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 1 (Database No.22)</td>
<td>Weight</td>
</tr>
<tr>
<td>Unidentified</td>
<td>26.0</td>
</tr>
<tr>
<td>Architectural</td>
<td>56.7</td>
</tr>
<tr>
<td>Domestic</td>
<td>16.5</td>
</tr>
<tr>
<td></td>
<td>100.0</td>
</tr>
</tbody>
</table>
Brown transfer-printed mug from Unit 14.
(1/2A(14)73, Ref1D631)
32. Embossed and gilded porcelain saucer from Unit 14.  (1/2A(14)29, Ref.ID587)

33. Hand-painted ceramic from Unit 14.  (1/2A(14)54, Ref.ID612)
34 Buttons from Unit 14.
(L to R. 1/2A(14)16,65,70,RefID574,623,628)

35 Clay pipes from Unit 14.
(1/2A(14)18,RefID576)
Dutch stoneware gin bottle from Unit 16 (1/2A16)17, RefID/19
37. Blue transfer-printed bowl from Unit 16 (1/2A(16)4, RefID706)

38. Black basaltes canewate teapot lid from Unit 16. (1/2A(16)16, RefID718)
As will be seen, the surface deposits were almost entirely made up of architectural debris, mainly timber from the former floor. Unit 7, is at first clearly different, but recourse to the Material variable indicates that almost all of the domestic debris was coal or clinker. Thus again there is no statistically valid sample of domestic material. Several coins were found, all with the young or old head of Queen Victoria (Fig. 39), but the information they provide as to date is only commensurate with the known date of the house. A few fragments of clay pipe were also found (Fig. 40) but this type of artefact is common to archaeological deposits up to the 1930s.

**Conclusion.**

The discoveries at the rear of 32 Merriman Street have made a major contribution to our knowledge of the area in the early 19th century.

However, neither the Merriman Street cottage nor the Kent Street house yielded a sufficient statistical sample upon which to assess socio-economic class or to make any cross-class comparison.
39. 1593 Penny from Site 2, Unit 9.  
   (2/1E(5)5, Ref.1D1033.)

40. Clay pipe stem from Site 2, Unit 11.  
   (2/1E(11)25, Ref.1D1362)